

Facts and opinions relating to the deaf from America.

Contributors

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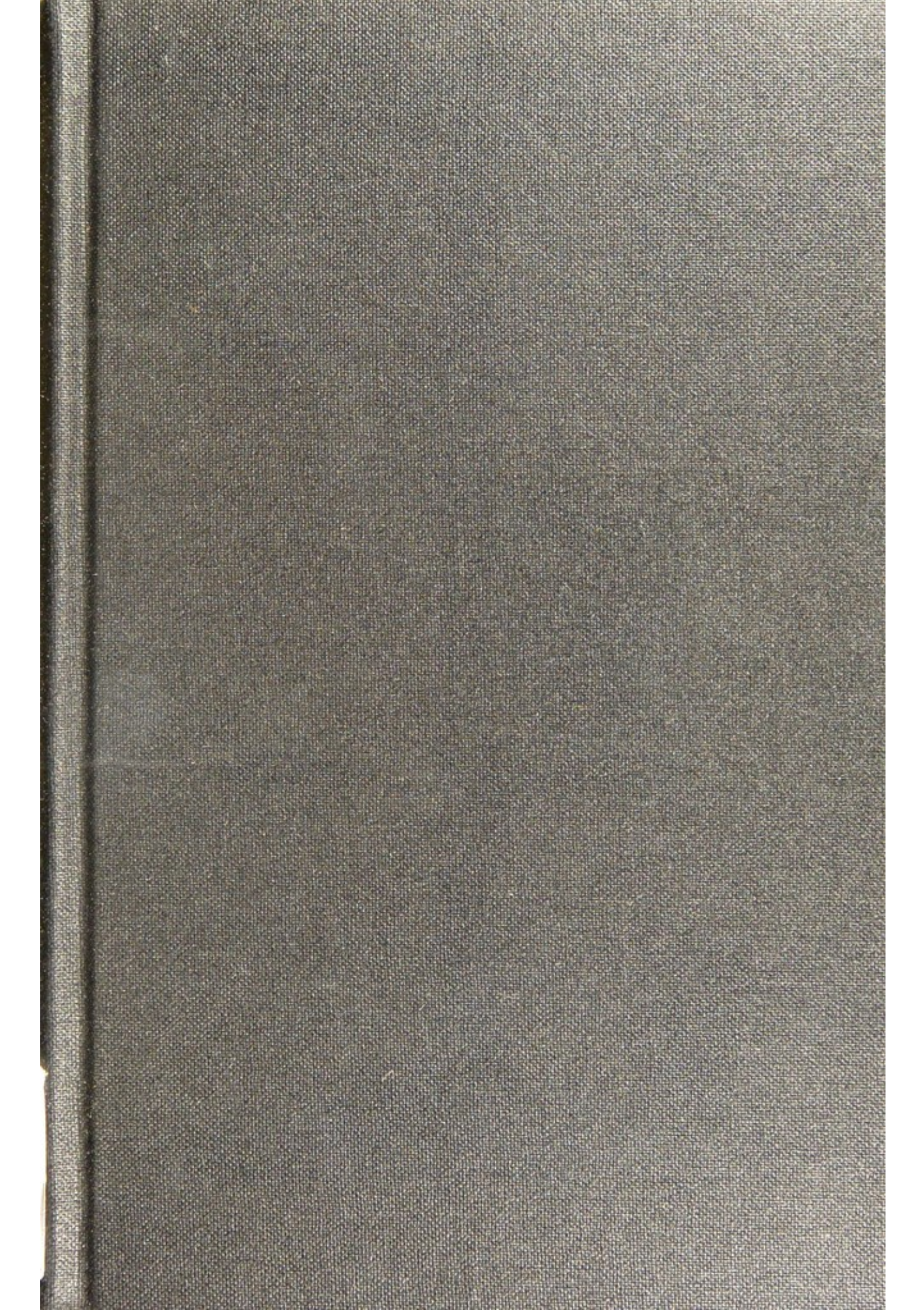
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Circular Letter of Inquiry sent to the Superintendents and Principals of American and Canadian Schools for the Deaf.

1,336 Nineteenth Street, Washington, D.C. : April 30, 1888.

DEAR SIR,—I have been invited to appear before the Royal Commission appointed by the British Government to inquire into the condition of the deaf, and propose sailing for Europe very shortly for this purpose.

Allow me to request your co-operation in obtaining the latest information concerning American Institutions for the Deaf.

The subjects upon which information is specially desired by the Royal Commission are stated to be :—

- '1. Visible Speech. (We know very little about this.)
- '2. Aural Method. (We know very little about this.)
- '3. Intermarriage of deaf-mutes and possibility of a deaf variety of the human race. Any trustworthy statistics on this would be most valuable.
- '4. Any general views which you might have on our inquiry, which is briefly to inquire into the education and training of deaf-mutes in the United Kingdom so as to make them more generally self-supporting than now.'
5. Information is also desired concerning the general work of articulation teaching.

May I trouble you to answer the following queries ?

I shall be thankful for whatever information you may be kind enough to send, but to be of use it must be sent at once.

I am, dear Sir, yours truly,

ALEXANDER GRAHAM BELL.

QUERIES.

I. Has 'Visible Speech' been employed in your institution?

Is it still employed, and to what extent?

If not, what cause do you assign for its discontinuance?

II. Auricular Instruction.—Do you make any special efforts to develop and utilise the hearing-power of your semi-deaf pupils?

If so, how many pupils do you have under auricular instruction?

How many of them are deaf from birth?

I shall be glad of any details regarding the methods of instruction employed in such cases and the results. Do you use instrumental aids, such as hearing-tubes or trumpets, audiophones, dentaphones, &c.?

What is your opinion concerning the relative merits of such apparatus?

Do you know of any facts indicating improvement of hearing power at or about the age of puberty?

How many pupils in your institution do you consider to be 'semi-deaf'?

How many of these were deaf from birth?

How many pupils in your institution were deaf from birth?

So few statistics have been collected concerning the numbers of the semi-deaf, that I trust you will give all the assistance in your power in determining some reliable percentage.

Statistics concerning the number of pupils who can hear the ringing of a dinner-bell would be of use.

III. I should be pleased to receive your opinion relating to the intermarriages of the deaf, and the inheritance of deafness by the offspring; and any statistics relating to the subject.

IV. I shall also be glad to have you communicate any facts relating to the instruction of the deaf which you think would be of value to the Commission, and it will give me pleasure to lay your views before the members.

Space for brief replies to these questions (III. and IV.) will

be found on the other side of this sheet, but I trust you will not deem it necessary to confine yourself to this limit if you desire to submit any views.

V. General Articulation work.—How many Articulation teachers do you employ ?

Kindly fill out the following table relating to articulation :—

	Total number of pupils	Period of life when deafness occurred			
		Birth or infancy (less than 2 years of age)	Early childhood (2 and less than 5 years of age)	Late childhood (5 or more years of age)	Unknown
TAUGHT ARTICULATION :					
Articulation used as means of instruction
Articulation not used as means of instruction
NOT TAUGHT ARTICULATION :					
Dropped from articulation classes
Received no instruction in articulation
Grand total

I enclose a table relating to the teaching of articulation in the institutions of the United States, compiled May 1883, by the Principal of the Clarke Institution. Please inform me if you observe any errors or omissions.

A. G. B.

REVISED LIST OF ITEMS

be found in the same way as the other items. It is not necessary to mention the name of the item in the list. The name of the item is given in the list. The name of the item is given in the list. The name of the item is given in the list.

Name of the item	Quantity
...	...
...	...
...	...
...	...
...	...
...	...
...	...
...	...

I enclose a table showing the position of the items in the list. The position of the items in the list is given in the table. The position of the items in the list is given in the table. The position of the items in the list is given in the table.

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I. VISIBLE SPEECH.

Replies of Superintendents and Principals of American and Canadian Schools for the Deaf to the first Query in the Circular Letter of Inquiry.

Name of Institution	(a) Has visible speech been employed in your Institution?	(b) Is it still employed?	(c) If not, what cause do you assign for its discontinuance?
			GENERAL REMARKS
1. American Asylum.	Yes.	No.	Because we found that we could accomplish the same results in less time by using diacritical marks of the dictionary. I consider it very essential that the teacher should have a thorough training in visible speech.—JOB WILLIAMS, <i>Principal</i> .
2. New York Institution.	—	—	J. L. Peet, <i>Principal</i> . No reply to circular letter to date, June 2, 1888.
3. Pennsylvania Institution.	Yes.	No.	Too difficult. Valuable aid for teachers.—A. L. E. CROUTER, <i>Principal</i> .
4. Kentucky Institution.	No.	No.	W. K. Argo, <i>Principal</i> .
5. Ohio Institution.	—	—	Just now I am <i>very full</i> of work, arranging for examinations and the close of school. I will endeavour to have the work done for you soon.—AMASA PRATT, <i>Superintendent</i> . No further reply received to date, June 2, 1888.
6. Virginia Institution.	Yes.	Yes.	Used at intervals for the last twenty years, steadily since 1874. We have one teacher who has twenty-four pupils under instruction.—THOS. A. DOYLE, <i>Principal</i> .
7. Indiana Institution.	Yes.	Yes.	Used as a basis for articulating system.—WILLIAM GLENN, <i>Superintendent</i> .
8. Tennessee Institution.	Yes.	No.	The time required for a child to become familiar with the symbols and to translate them in reading or writing we think can be otherwise more profitably employed, in most cases.—THOS. L. MOSES, <i>Principal</i> .
9. North Carolina Institution.	No.	No.	W. J. Young, <i>Principal</i> .

I. VISIBLE SPEECH—(continued).

Name of Institution	(a) Has visible speech been employed in your Institution?	(b) Is it still employed?	(c) If not, what cause do you assign for its discontinuance?
			GENERAL REMARKS
10. Illinois Institution.	Yes.	Yes.	Used to a very limited extent. It is of advantage to teachers, as it enables them to comprehend physiological facts involved in speech; but for pupils, while it is thus helpful, it requires an amount of time and labour to acquire that can be better improved with the use of diacritical marks.—PHILIP G. GILLET, <i>Superintendent</i> .
11. Georgia Institution.	No.	No.	Have never been able to introduce it on account of want of funds to pay a specialist.—W. O. CONNOR, <i>Principal</i> .
12. South Carolina.	Yes.	Yes.	Used with all of our articulation pupils.—NEWTON F. WALKER, <i>Superintendent</i> .
13. Missouri Institution.	Yes.	No.	Have discontinued symbols in class-room, but the principles are constantly used, and we consider a knowledge of visible speech invaluable to a teacher. Too complicated and easily forgotten by pupils after leaving school.—JAMES N. TATE, <i>Principal</i> .
14. Louisiana Institution.	—	—	John Jastremski, Superintendent. No reply to circular letter to date, June 2, 1888.
15. Wisconsin School.	Yes.	No.	Used for four years by Misses E. Eddy and R. Ritscher. We hold it of value to the teacher as an aid in securing the pronunciation of difficult and obscure sounds and combinations. But seemed to require too much time from the pupils to require them to learn to read and write it.—J. W. SWILER, <i>Principal</i> .
16. Michigan School.	Yes.	Yes.	It is used only with those who show a faculty to readily improve by it.—M. T. GASS, <i>Superintendent</i> .
17. Mississippi Institution.	Yes.	Yes.	One class of eight is instructed by lip-reading and articulation altogether. About twenty-five are being taught to speak and read lips by the use of Bell's system. Several of our pupils are becoming fine lip-readers.—J. R. DOBYNS, <i>Superintendent</i> .
18. Iowa Institution.	—	—	G. L. Wyckoff, Principal. No reply to circular letter to date, June 2, 1888.
19. Texas Asylum.	No.	No.	W. H. Kendall, Superintendent.

I. VISIBLE SPEECH—(continued).

Name of Institution	(a) Has visible speech been employed in your institution?	(b) Is it still employed?	(c) If not, what cause do you assign for its discontinuance? GENERAL REMARKS
20. Columbia Institution: A. Kendall School.	Yes.	Yes.	Used in the initiatory steps, and as a foundation for explanation and correction.—JAMES DENISON, <i>Principal</i> .
B. National College.	—	—	Mr. Denison has sent you statements regarding the Kendall School. As to the College, there is nothing to say, as we do not teach speech therein.—E. M. GALLAUDET, <i>President</i> .
21. Alabama Institution.	No.	No.	Jos. H. Johnson, <i>Principal</i> .
22. California Institution.	No.	No.	Warring Wilkinson, <i>Principal</i> .
23. Kansas Institution.	Yes.	No.	It is thought that the time required to become adept in the use of symbols can be better spent in actual drill of vocal organs directed by teacher. It is deemed desirable, however, for teachers to be familiar with symbols.—S. T. WALKER, <i>Principal</i> .
24. Le Couteux St. Mary Institution.	Yes.	Yes.	Used with older pupils who have come from other schools without speech until they have learned the elements. With younger pupils we prefer the phonetic or word method.—SISTER MARY ANN BURKE, <i>Principal</i> .
25. Minnesota School.	Yes.	No.	Used for two years; not at all used now. It takes too much of the pupils' time, and small returns. It is well for the teachers to understand it. It does not give the help to pupils that I fully expected when I introduced it.—JONATHAN L. NOYES, <i>Principal</i> .
26. N. Y. Inst. for Improved Instruction.	No.	No.	D. Greenberger, <i>Principal</i> .
27. Clarke Institution.	Yes.	No.	Not used, except in training teachers. We found that by substituting Miss Worcester's method for visible speech we gained much time, obtained quite as good results in speech, far better results in lip-reading, and speech became a much more spontaneous method of expression for the pupils.—CAROLINE A. YALE, <i>Principal</i> .

I. VISIBLE SPEECH—(continued).

Name of Institution	(a) Has visible speech been employed in your Institution?	(b) Is it still employed?	(c) If not, what cause do you assign for its discontinuance?
			GENERAL REMARKS
28. Arkansas Institution.	—	—	F. D. Clarke, Principal, did not reply to this question.
29. Maryland School.	No.	No.	Visible speech has not been employed directly in the instruction of pupils. They have not been taught to read and write its forms. Our principal teacher of articulation was taught visible speech, and used it for a year at Northampton. Her knowledge of the organs of speech and their use obtained by this study I consider of great value. Visible speech has not been used because, in my judgment, the learning of the symbols by pupils lengthens rather than shortens the process of instruction.—C. W. ELY, <i>Principal</i> .
30. Nebraska Institution.	—	—	John A. Gillespie, Principal, did not reply to this question.
31. Horace Mann School.	Yes.	Yes.	It is occasionally used in the instruction to the older pupils. All of the teachers are required to have a knowledge of visible speech. Its use was discontinued with younger pupils because we thought it better to give no written representation of the elements until after the pupils are able to pronounce words containing them.—SARAH FULLER, <i>Principal</i> .
32. St. Joseph's Institution.	Yes.	No.	We did use it to some extent, but not within the past eight or ten years.—ERNESTINE NARDIN, <i>President</i> .
33. West Virginia School.	—	—	H. B. Gilkeson, Principal. No reply to circular letter received to date, June 2, 1888.
34. Oregon School.	No.	No.	We have never been able to introduce it for lack of funds.—P. S. KNIGHT, <i>Superintendent</i> .
35. Maryland Institute for Coloured Persons.	—	—	F. D. Morrison, Superintendent. No reply to circular letter received to date, June 2, 1888.
36. Colorado Institution.	Yes.	Yes.	Fourteen out of forty-two receive instruction in articulation.—JOHN E. RAY, <i>Superintendent</i> .
37. Chicago Day Schools.	Yes.	No.	Philip A. Emery, Principal. No remarks.

I. VISIBLE SPEECH—(continued).

Name of Institution	(a) Has visible speech been employed in your Institution?	(b) Is it still employed?	(c) If not, what cause do you assign for its discontinuance?
			GENERAL REMARKS
38. Central N.Y. Institution.	Yes.	Yes.	Used as far as it is practicable in each case.—E. B. NELSON, <i>Principal</i> .
39. Cincinnati Public Schl.	—	—	A. F. Wood, <i>Principal</i> . No reply to circular letter received to date, June 2, 1888.
40. West Pennsylvania Institution.	Yes.	No.	Used several years ago. Not at all now, because the pupils learn sounds just as quickly and accurately with diacritical marks, which we regard to be more simple.—JOHN G. BROWN, <i>Principal</i> .
41. Western N.Y. Institution.	—	—	Z. F. Westervelt, <i>Principal</i> . No reply to circular letter received to date, June 2, 1888.
42. Portland School.	Yes.	Yes.	Used with all pupils.—ELLEN L. BARTON, <i>Principal</i> .
43. Rhode Island School.	No.	No.	Not used at all to my knowledge. I have been <i>Principal</i> of the R. I. School for the Deaf for nearly three years now, and have always used the German method, with later improvements. I have made some study of the 'Bell System,' but must say I fail to see that it holds any advantage over the German or is quite equal to it. The only symbols we use are the Dictionary (Webster's) diacritical marks. Our charts are made as simple as possible, and we drill unceasingly on the combination of elements in word-building. Just as soon as the pupil strikes a combination which has a significant meaning, the teacher explains by illustrations. In this way he slowly gains a vocabulary of words. Our method is a sort of cross between the strictly elementary and the word method.—ANNA M. BLACK, <i>Principal</i> .
44. St. Louis Day School.	—	—	D. A. Simpson, <i>Principal</i> . No reply to circular letter received to date, June 2, 1888.
45. New England Industrial School.	Yes.	No.	The <i>Principal</i> taught it for a short period, but, owing to pressure of business and lack of time, was compelled to discontinue it. The school, since its opening in 1879, has laboured under financial difficulties, consequently has been unable to employ a fully qualified teacher of articulation.—NELLIE H. SWETT, <i>Principal</i> .

VISIBLE SPEECH

1. VISIBLE SPEECH—(continued).

Name of Institution	(a) Has visible speech been employed in your Institution?	(b) Is it still employed?	(c) If not, what cause do you assign for its discontinuance?
			GENERAL REMARKS
46. Dakota Schl.	—	—	James Simpson, Superintendent. No reply to circular letter received to date, June 2, 1888.
47. Milwaukie Day School.	No.	No.	Paul Binner, Principal.
48. Pennsylvania Oral School.	No.	No.	Emma Garrett, Principal. No remarks.
49. New Jersey School.	No.	No.	Not used in the instruction of pupils. I have used the system as a guide for my teachers in their study of the production of sound by the human organs of speech. My reason for not extending its use to my pupils is that, while I think it an aid to the forming of a correct habit of vocalisation, I have observed in pupils trained on this system a difficulty in passing from the use of symbols to that of alphabetic characters.—WESTON JENKINS, <i>Superintendent</i> .
50. Utah School.	—	—	Henry C. White, Principal. No reply to circular letter received to date, June 2, 1888.
51. Northern N.Y. Institution.	—	—	Henry C. Rider, Superintendent. No reply to circular letter received to date, June 2, 1888.
52. Florida Institution.	Yes.	Yes.	We do not use 'visible speech,' and have never done so. When we started, it was with your 'line writing,' which in the hands of an able teacher met every need, and our pupils made much more rapid progress than any I had ever observed where other means were used. Whether it is the method or the teacher to whom the success is due, is an open question; but I think each is entitled to some share of the credit. It has been our experience (limited to three years in this school) that every deaf child of fair mental powers can be taught to speak with sufficient clearness to be understood by those unaccustomed to hearing 'semi-mutes' talk, if the articulation training begin while the child is very young—say 4 to 8 years of

1. VISIBLE SPEECH—(continued).

Name of Institution	(a) Has visible speech been employed in your institution?	(b) Is it still employed?	(c) If not, what cause do you assign for its discontinuance? GENERAL REMARKS
53. Washington Territory School.	No.	No.	age. But little can be done with children over 15 years of age. — PARK TERRELL, <i>Principal</i> . [Line writing is the stenographic form of 'visible speech.' I have therefore changed Mr. Terrell's reply from the negative to the affirmative.—A. G. B.] James Watson, Director. No remarks.
54. New Orleans Public School.	No.	No.	This school being established in 1886, is a sign-language one, but I intend introducing an articulation class into this school shortly. —R. B. LAWRENCE, <i>Principal</i> .
55. Evansville School.	No.	No.	We will introduce it in the near future, when our school is large enough. — CHARLES KERNEY, <i>Principal</i> .
56. La Crosse School.	—	—	Albert Hardy, Superintendent. No reply to this question.
57. New Mexico School.	No.	No.	Lars M. Larsan, <i>Principal</i> . No remarks.

PRIVATE AND DENOMINATIONAL SCHOOLS.

1. Whipple's Home Sch.	Yes.	Yes.	It is used whenever we find it difficult to teach the pupil to articulate distinctly.—MARGARET HAMMOND, <i>Principal</i> . The following question was also asked: Is 'Whipple's Natural Alphabet' still used in the school? Would you kindly send me a copy of this ingenious alphabet to present to the Royal Commission? It would give me pleasure to receive any communication relating to the late Mr. Whipple's methods, and to lay it before the members.—No reply to this question received to date, June 2, 1888.
2. German Ev. Lutheran Institution.	Yes.	Yes.	Used exclusively.—D. H. UHLIG, <i>Director</i> .

1. VISIBLE SPEECH—(*continued*).

Name of Institution	(a) Has visible speech been employed in your institution?	(b) Is it still employed?	(c) If not, what cause do you assign for its discontinuance?
			GENERAL REMARKS
3. St. John's Catholic Institution.	Yes.	Yes.	Used only in special class.—CHARLES FESSLER, <i>Principal</i> .
4. Frederick Knapp Institution.	—	—	Frederick Knapp, <i>Principal</i> . No reply to circular letter received to date, June 2, 1888.
5. Voice and Hearing School.	—	—	Mary McCowen, <i>Principal</i> . No reply to this question.
6. Mary Garrett's School.	No.	No.	I studied visible speech with great pleasure to myself, and consider the symbols much superior to our English alphabet in that they represent the sounds as they are in words, while the names of the letters of the alphabet (with the exception of the long sounds of the vowels) are so different from their power in words. I do not use it with deaf pupils, because I want to teach them to understand the text in common use (faulty though it is) as early in their training as possible. I obviate the difficulty of there being several sounds for each vowel by teaching them their appropriate diacritical marks as soon as they begin to learn to write, so that they soon learn their different sounds. I also call their attention to the silent letters found in words.—MARY S. GARRETT, <i>Principal</i> .
7. Maria Consilia Institute.	Yes.	Yes.	Eight pupils receive instruction in it for one hour daily.—SISTER ADELE, <i>Principal</i> .
8. Cincinnati Oral School.	—	—	Cath. Westendorf, <i>Principal</i> . No reply to circular letter received to date, June 2, 1888.
9. Chicago Catholic Sch.	—	—	No reply to circular letter received to date, June 2, 1888.
10. Miss Keeler's Class.	—	—	Sarah Warren Keeler, <i>Principal</i> . No reply to this question.
11. Cathedral Catholic School.	—	No.	We do not employ visible speech, nor have we tried the auricular method. Our course of instruction is the same as that pursued at the Philadelphia Institute, except that we, for want of means, do not teach articulation or give industrial training.—E. P. CLEARY, <i>Principal</i> .

1. VISIBLE SPEECH—(continued).

Name of Institution	(a) Has visible speech been employed in your Institution?	(b) Is it still employed?	(c) If not, what cause do you assign for its discontinuance?
			GENERAL REMARKS
12. Sarah Fuller Home.	?	?	Sarah Fuller, Supervising Principal. See remarks of Principal of Horace Mann School.

SCHOOLS IN THE DOMINION OF CANADA.

1. Catholic Institute (Male).	—	—	J. B. Manseau, Principal. No reply to circular letter received to date, June 2, 1888.
2. Catholic Institute (Female).	—	—	Sister Mary of Mercy, Superioress. No reply to circular letter received to date, June 2, 1888.
3. Halifax Institute.	No.	No.	J. Scott Hutton, Principal.
4. Ontario Institute.	Yes.	No.	Beginning in 1879, but dropped after about three years' trial. The system seems to be too difficult to be understood by young pupils. A thorough knowledge of visible speech, however, has been found of great assistance to the teacher of articulation.—R. MATHISON, <i>Superintendent</i> .
5. Mackay Institute.	Yes.	Yes.	Used for seven years with every pupil to whom articulation is taught.—HARRIET E. MCGANN, <i>Superintendent</i> .
6. New Brunswick Inst.	—	—	A. H. Abell, Principal. No reply to circular letter received to date, June 2, 1888.
7. Frederickton Institute.	—	—	Albert F. Woodbridge, Principal. No reply to circular letter received to date, June 2, 1888.

Professor J. C. Gordon, of the National Deaf-mute College, writes: 'In reference to visible speech I feel that you will be fully justified in urging that all teachers of articulation should be thoroughly grounded in the mechanism of speech, and to this end "Visible Speech" gives a completeness and definiteness and sense of mastery not readily acquired by any purely experimental system.'

II. AURICULAR INSTRUCTION.

Statistics relating to Auricular Instruction and Description of Methods employed in American Schools to develop latent hearing power. Replies of Superintendents and Principals to the Second List of Queries in the Circular Letter.

(g) How many of these were deaf from birth?	(h) How many pupils in your Institution were deaf from birth?	(i) How many pupils do you have under Auricular Instruction?	(j) How many of these were deaf from birth?	(k) Number of pupils who can hear the ringing of a dinner-bell
8	4	—	—	—
10	4	145	10	0
8	2	112	8	26
GENERAL REMARKS				
<p>(a) Do you make any special efforts to develop and utilise the hearing power of your semi-deaf pupils?</p> <p>(b) I shall be glad of any details regarding the methods of instruction employed in such cases and the results.</p> <p>(c) Do you use instrumental aids, such as hearing tubes or trumpets, audiphones, dentaphones, &c.?</p> <p>(d) What is your opinion concerning the relative merits of such apparatus?</p> <p>(e) Do you know of any facts indicating improvement of hearing power at or about the age of puberty?</p>				
1. AMERICAN ASYLUM.				
(a) No systematic efforts. (k) I cannot tell.—JOHN WILLIAMS, <i>Principal</i> .				
2. NEW YORK INSTITUTION.				
J. L. Peet, <i>Principal</i> . No reply received to circular letter to date, June 2, 1888.				
3. PENNSYLVANIA INSTITUTION.				
(a) To a limited extent. (c) We use hearing-tubes. (d) All have their value. (e) I have no information upon this point. (i) About 10. (j) None of them. (k) The majority say they can hear a bell ring.—A. L. E. CROUTER, <i>Principal</i> .				
4. KENTUCKY INSTITUTION.				
(a) In cases where hearing promises to prove of use as a means of instruction—yes. (c) Yes. (d) In the majority of cases of little practical value. Trumpet gives most satisfactory				

results: (e) On the contrary, since 1880 we have had 6 pupils whose deafness came upon them about this period, in most cases gradually. (k) 57 older pupils tested—26 heard.—W. K. ARGO, *Superintendent*.

5. OHIO INSTITUTION.

Just now I am *very full* of work arranging for examinations and the close of school. I will endeavour to have the work done for you soon.—AMASA PRATT, *Superintendent*.
No further reply received to date, June 2, 1888.

6. VIRGINIA INSTITUTION.

(a) Very little. (c) We have one of the Currier double tubes which we use sometimes—but not continually with any pupil. (d) All the dentaphones so called that I have seen I regard as humbugs. Currier's tube is the best piece of such apparatus that I know. (e) I do not. Edward Green, who entered here as a pupil in 1865 and was discharged in 1872, is said to have recovered his hearing since leaving. He is ranked in the record as a 'semi-mute,' who lost his hearing at two years of age by scarlet fever. (h) 80 I should say, although some of this 80 have been reported as going deaf at any age less than two years.—THOMAS A. DOYLE, *Principal*.

7. INDIANA INSTITUTION.

(a) To a limited extent—limited by lack of time. (c) Use hearing-tubes. (d) Not of much use. (e) None.—WM. GLENN, *Superintendent*.

8. TENNESSEE SCHOOL.

(a) We do. (b) By putting them in the 'articulation' or 'oral' class, believing that training of this kind teaches children to discriminate between the sounds of different words or that such training improves the hearing—which we regard as one and the same thing—in *results*. (c) We have used tubes, trumpets, and dentaphones. (d) They are helps in some cases. (e) No; unless the fact that a larger percent. of our pupils who have reached that age are semi-deaf, than is found among the pupils under that age. (g) 3 so reported; but information as to others is not reliable. (h) About one-third born deaf, but above remark applies in this case. (k) 25 per cent.—THOS. L. MOSES, *Principal*.

9. NORTH CAROLINA INSTITUTION.

(a) No. (c) We use no instrumental aids. (e) None. (h) 'About 50' born deaf.—W. J. YOUNG, *Principal*.

9	7	80	—	—	—	—	—
20	—	—	20	9	—	—	—
20	3	—	8	3	—	—	—
10	—	50	—	—	—	—	—

II. AURICULAR INSTRUCTION—(continued.)

(f) How many pupils in your Institution do you consider to be semi-deaf?	(g) How many of these were deaf from birth?	(h) How many pupils in your Institution were deaf from birth?	(i) How many pupils do you have under Auricular Instruction?	(j) How many of these were deaf from birth?	(k) Number of pupils who can hear the ringing of a dinner-bell	GENERAL REMARKS
40	23	—	40	23	—	<p>(a) Do you make any special efforts to develop and utilise the hearing power of your semi-deaf pupils?</p> <p>(b) I shall be glad of any details regarding the methods of instruction employed in such cases and the results.</p> <p>(c) Do you use instrumental aids, such as hearing tubes or trumpets, audiphones, dentaphones, &c.?</p> <p>(d) What is your opinion concerning the relative merits of such apparatus?</p> <p>(e) Do you know of any facts indicating improvement of hearing power at or about the age of puberty?</p> <p style="text-align: center;">10. ILLINOIS INSTITUTION.</p> <p>(a) We do, to utilise the modicum of hearing they have, and I have always done this, but I do not think we improve the hearing, though in some cases we teach them to better use the little hearing they have. (c) Every aid I can obtain we use. (d) The hearing-tube aids more than any other instrument. (e) I have watched closely for this, but have found no cases improved by that physical change. The tendency is rather to become worse. (h) About one-half' deaf from birth. (i) 40 under auricular training at this date, May 8, 1888. (j) 23 deaf from birth; 2 became deaf under one year; 4 at 1 year; 5 at 2; 3 at 3; 1 at 4; 1 at 7; 1 at 9. (k) They all seem to hear the <i>dinner-bell</i> (1), but only about 5 per cent. hear the school bell.—PHILIP G. GILBERT, <i>Superintendent</i>.</p>
4	2	32	—	—	—	<p style="text-align: center;">11. GEORGIA INSTITUTION.</p> <p>(a) No. (e) No, speaking after 26 years' work in the Georgia Institution. (f) Of 300 pupils (admitted 1867 to 1888) 34 were semi-deaf. (h) 32 born deaf out of a total of 57.—W. O. CONNOR, <i>Principal</i>.</p>
6	2	42	—	—	—	<p style="text-align: center;">12. SOUTH CAROLINA INSTITUTION.</p> <p>(a) No. (e) No.—NEWTON F. WALKER, <i>Superintendent</i>.</p>

13. MISSOURI INSTITUTION.

(a) Have tried to utilise with all in class, and in some cases have succeeded in developing.
 (b) No aural class, but pupils in oral class have some aural instruction. (c) We use a hearing-tube, and find it helpful in some cases. (d) Have used but one, and cannot speak relatively. (e) No. (f) We know there are 17 semi-deaf, but the hearing of the whole school has never been tested. (k) About 30 out of 199 hear the bell.—JAMES N. TATE, *Principal*.

14. LOUISIANA INSTITUTION.

John Jastremski, Superintendent. No reply to circular letter received to date, June 2, 1888.

15. WISCONSIN SCHOOL.

(a) We endeavour to use hearing where it is serviceable without instruments—used flexible tubes (single) for two years without decided benefit. (c) No instrumental aids now in use. (d) After persistent use of flexible tubes two years could not see any decided utility in them.—JOHN W. SWILER, *Superintendent*.

16. MICHIGAN SCHOOL.

(a) We do not make any special efforts, although we as much as possible communicate with such pupils through the sense of hearing. (c) We have used a hearing-tube to a limited extent on account of sensitive ears; no systematic efforts have been made with the instrument. (e) I do not know.—M. T. GASS, *Superintendent*.

17. MISSISSIPPI INSTITUTION.

(a) Yes. (b) One pupil about four years ago could not understand a word. She has been practised with the flexible tube until she can hear and understand from 1 to 8 feet behind her (the person speaking standing behind her). (c) We use only the flexible tube. (d) As far as my experience goes I think this tube is the best. (e) I do not. (g) Not more than one of these born deaf. (h) Have not all statistics.—J. R. DOBYNS, *Superintendent*. [The figures given by Mr. Dobyms seem inconsistent with one another. I am unable to correct the error.—A. G. B.]

18. IOWA INSTITUTION.

G. L. Wyckoff, Principal. No reply to circular letter received to date, June 2, 1888.

II. AURICULAR INSTRUCTION—(continued).

(f) How many pupils in your Institution do you consider to be semi-deaf?	(g) How many of these were deaf from birth?	(h) How many pupils in your Institution were deaf from birth?	(i) How many pupils do you have under Auricular Instruction?	(j) How many of these were deaf from birth?	(k) Number of pupils who can hear the ringing of a dinner-bell	GENERAL REMARKS
14	5	67	—	—	23	19. TEXAS ASYLUM. (a) No, but expect to. (e) One case of slight improvement. (f) About 9 per cent. semi-deaf. (h) 67 supposed to be born deaf.
6	1	24	6	1	19	20. COLUMBIA INSTITUTION. A. KENDALL SCHOOL. (a) No systematic work in classes in this direction, but occasional work and testing of hearing in individual cases, which show possibility of improvement and give hope for the future. (c) Yes. English conversational tube, Mr. Currier's duplex, and Mr. Maloney's. (d) The English conversational tube is very helpful if used with care; Mr. Currier's duplex tube very useful in helping to develop the voice as well as the hearing; Mr. Maloney's less liable to cause injury than others, as it does not enter the ear, and in some cases more powerful. (e) No. (k) 19 out of the 61 pupils claim they can hear it when in the same room with the bell.—JAMES DENISON, <i>Principal</i> .
—	—	—	—	—	—	B. NATIONAL COLLEGE. Mr. Denison has sent you statements regarding the Kendall School. As to the College there is nothing to say, as we do not teach speech therein.—E. M. GALLAUDET, <i>President</i> .

- (a) Do you make any special efforts to develop and utilize the hearing power of your semi-deaf pupils?
- (b) I shall be glad of any details regarding the methods of instruction employed in such cases and the results.
- (c) Do you use instrumental aids, such as hearing tubes or trumpets, audiphones, dentaphones, &c.?
- (d) What is your opinion concerning the relative merits of such apparatus?
- (e) Do you know of any facts indicating improvement of hearing power at or about the age of puberty?

21. ALABAMA INSTITUTION.

(a) No. (c) Yes. (d) We don't think they are of any practical value, except to improve the quality of the voice in those pupils where we teach articulation. (e) No. (g) None of them.—JAMES H. JOHNSON, *Principal*.

22. CALIFORNIA INSTITUTION.

(a) No. (e) No. (h) 102 deaf from birth or under 2 years.—WARRING WILKINSON, *Principal*.

23. KANSAS INSTITUTION.

(a) Yes, with pupils who have some considerable perceptible degree of hearing. (b) Our regular articulation teachers take the class for 40 minutes each day. (c) Instrumental aid used very little. Have tried tubes, trumpets, audiphone, and dentaphone. (d) Currier's tube is best. (h) 157 deaf from birth or under 2 years. (k) 161 tested, 88 said they could hear, but 48 of these also said they heard when the bell was not rung. In a letter the superintendent says: 'In regard to the experiment of hearing the dinner bell I will say that a large percent. of those tried said they heard the bell, when I afterwards proved conclusively that they did not. I had them turn their backs to me each trial, and at a signal face me and tell who heard. These trials were repeated several times, and one or two of them were false trials when the bell was not touched. Notwithstanding, 48 of the 161 tried answered that they heard the bell *every time* even when it was not touched. Knowing that to make statistics of real effect (or rather the conclusions drawn from them) they should be as nearly correct as possible, I was careful to have these tests correct. I am convinced that fully one-half of any set of pupils give incorrect answers to questions relative to their powers of hearing. Why? I can't tell. They may not understand just what *hearing* is and *guess* that they hear, or they may like to appear to hear, and so say they do hear more than they can. It is so common for deaf children to deceive (intentionally or unintentionally I can't say), especially those who do not give their condition much thought. People in general believe more than is told them by or about deaf-mutes, especially their accomplishments.—S. T. WALKER, *Superintendent*.

24. LE COUTEULX ST. MARY'S INSTITUTION.

(a) Yes. (b) With beginners or those whose hearing has not been trained the word is first taken from the lips, then spoken into the ear until they become familiar with the sound. (c) Seldom. Have tried all the above-mentioned aids. (d) We find that they shook the nerves of many of the pupils. (e) No. (h) 6 can hear the ringing of a dinner bell from a distance.—SISTER MARY ANNE BURKE, *Principal*.

6	0	53	—	—	—	—	—
14	12	—	—	—	—	—	—
11	4	—	19	2	40	—	—
14	9	40	14	9	6	—	—

II. AURICULAR INSTRUCTION—(continued).

(f) How many pupils in your Institution do you consider to be semi-deaf?	(g) How many of these were deaf from birth?	(h) How many pupils in your Institution were deaf from birth?	(i) How many pupils do you have under Auricular Instruction?	(j) How many of these were deaf from birth?	(k) Number of pupils who can hear the ringing of a dinner-bell.
20	—	66	7	3	—
18	6	53	—	—	—
18	10	28	18	10	22
15	9	53	9	7	—

GENERAL REMARKS

25. MINNESOTA SCHOOL.

(a) In a very few cases I do. (c) Yes. Currier's ear-trumpet. The audiphone gave no help compared with the ear-trumpet. (d) In some cases it is of service; some of our pupils complain of soreness in the ear after using it, and do not like to use it. It is only a temporary aid, except in a very few cases. (e) I do not. (f) 20 more or less deaf. (h) 111 under 1 year, 66 of these congenital. (i) 7 more or less. (k) 15 hear the steam-whistle sound in the morning.

26. INSTITUTION FOR IMPROVED INSTRUCTION, N.Y.

(a) Yes. (c) We use ear-trumpets. (d) We prefer the conical shaped to the others. (e) No.—D. GREENBERGER, *Principal*.

27. THE CLARKE INSTITUTION.

(a) Yes. (c) Hearing-tubes and trumpets. (d) None but those named have proved of any use. (e) No. (f) We class as semi-deaf any who can be given any word through hearing, or can distinguish most of the vowel sounds. (h) 28 born deaf and three others possibly.—CAROLINE A. YALE, *Principal*.

28. THE ARKANSAS INSTITUTE.

(a) Yes. (b) [Mr. F. D. Clarke, Principal, has prepared a paper upon Auricular Training for the information of the Royal Commission, which is printed at the conclusion of this synopsis, among other papers upon the same subject.—A. G. B.]

(a) Do you make any special efforts to develop and utilise the hearing power of your semi-deaf pupils?

(b) I shall be glad of any details regarding the methods of instruction employed in such cases and the results.

(c) Do you use instrumental aids, such as hearing tubes or trumpets, audiphones, dentaphones, &c.?

(d) What is your opinion concerning the relative merits of such apparatus?

(e) Do you know of any facts indicating improvement of hearing power at or about the age of puberty?

(a) To utilize it, yes; to develop it also if by that is meant the removal of any obstacles to hearing. I am sceptical of any development in the sense of growth of hearing *power*, as meant when we speak of growth of muscle. From some cases under my observation I am inclined to believe that apparent increase of hearing power is due to increased attention and mental development. (c) Not at present. I do not like to go on record as opposed to the use of aids to hearing, but believe fully in their use where practicable. We have now only two pupils who could use such appliances, and these can be reached by the voice. (e) Not at present. (d) In a series of experiments conducted with my pupils a year or two ago, I was led to the conclusion that so far as these cases were concerned the hearing-tube was to be preferred. (e) No. (k) 12 can hear the bell when near.—
C. W. ELY, *Principal*.

30. NEBRASKA INSTITUTE.

(a) Yes. (b) [Mr. J. A. Gillespie, Superintendent, has prepared a paper upon Auricular Training for the information of the Royal Commission, which is printed at the conclusion of this synopsis, among other papers upon the same subject. The Nebraska Institute was the first in America to establish a separate auricular department. Mrs. Taylor and Miss McGowen, who have also contributed papers upon this subject, were teachers of the auricular class in this institution. Miss McGowen has since established a 'Voice and Hearing School' of her own in Englewood, Illinois, where she makes a speciality of Auricular Training.—A. G. B.]

31. THE HORACE MANN SCHOOL.

(a) Yes. (b) We try to train the pupils to hear the sound of the teacher's voice, without artificial aids. We think there is danger of harm to the child if it is quite young in the frequent use of tubes. We have no separate classes for such instruction. (d) We prefer instruments which are not inserted in the ear passage. (e) Yes. Several pupils have shown great improvement in their power to hear at that period. (g) Possibly 8 deaf from birth. (h) 14 deaf from birth, reported by parents. These do not include the 8 mentioned above. (k) 8 who are not semi-deaf can hear the ringing of a dinner-bell.—
SARAH FULLER, *Principal*.

32. ST. JOSEPH'S INSTITUTE.

(a) Yes, but do not separate them from those who are entirely deaf. (c) We use convex tubes, single and duplex, and ear-trumpets. We used the audiphones for some time, but did not find them of much value to our pupils. (d) We obtain the best results from the use of the convex tube. (e) No.

4 2 49 — — — 12

18 12 48 16 10 — —

15 8 22 — — — 23

35 19 85 35 19 — —

II. AURICULAR INSTRUCTION—(continued).

(f) How many pupils in your Institution do you consider to be semi-deaf?	(g) How many of these were deaf from birth?	(h) How many pupils in your Institution were deaf from birth?	(i) How many pupils do you have under Auricular Instruction?	(j) How many of these were deaf from birth?	(k) Number of pupils who can hear the ringing of a dinner-bell
—	—	—	—	—	—
—	—	9	—	—	4
<p>GENERAL REMARKS</p> <p>33. WEST VIRGINIA SCHOOL. H. B. Gilkeson, Principal. No reply to circular letter received to date, June 2, 1888.</p> <p>34. OREGON SCHOOL. (a) We are careful to exercise both hearing and speaking on part of those semi-deaf. (d) It depends <i>entirely</i> on the nature of the defect. Have found the audiphone and dentaphone absolutely useless in most cases. (e) Do not. But have one or two in whom defective hearing has been greatly improved by <i>simple exercise</i>. (f) 'Semi-deaf' is a very indefinite term. Several in my classes can hear sharp sounds who are beyond the possibility of being reached by articulate speech. Have only one such in 30. (k) 4 out of 30.—P. S. KNIGHT, <i>Superintendent</i>.</p> <p>35. MARYLAND SCHOOL FOR COLOURED DEAF-MUTES. F. D. Morrison, Superintendent. No reply to circular letter received to date, June 2, 1888.</p> <p>36. COLORADO INSTITUTE. (a) Not just yet, but hope to begin soon. (e) None.—JOHN E. RAY, <i>Superintendent</i>.</p> <p>37. CHICAGO DAY SCHOOLS. (a) No. (d) The tests we have made have been useless.—PHILIP A. EMERY, <i>Principal</i>.</p>					

- (a) Do you make any special efforts to develop and utilise the hearing power of your semi-deaf pupils?
- (b) I shall be glad of any details regarding the methods of instruction employed in such cases and the results.
- (c) Do you use instrumental aids, such as hearing tubes or trumpets, audiphones, dentaphones, &c.?
- (d) What is your opinion concerning the relative merits of such apparatus?
- (e) Do you know of any facts indicating improvement of hearing power at or about the age of puberty?

										38. CENTRAL NEW YORK INSTITUTION. (a) No, except by the use of Currier's conical tube. (c) We use Currier's conical tube. (d) It is the best I have ever seen, (e) No.—E. R. NELSON, <i>Principal</i> .
										39. THE CINCINNATI PUBLIC SCHOOL. A. F. Wood, <i>Principal</i> . No reply to circular letter received to date, June 2, 1888.
14	4	—	4	0	39					40. WEST PENNSYLVANIA INSTITUTION. (a) Yes. (b) We have pupils listen to vowel sounds with their eyes closed, until they can distinguish them. (c) We do not use any at present. (d) Have not found any that were very satisfactory. (e) One girl under auricular instruction 2 years; shows marked improvement during the present term. (f) 4 at present. (k) 39 out of 148.—JOHN G. BROWN, <i>Principal</i> .
										41. WESTERN NEW YORK INSTITUTION. Z. F. Westervelt, Superintendent and <i>Principal</i> . No reply to circular letter received to date, June 2, 1888.
10	10	34	10	10	—					42. PORTLAND SCHOOL. (a) I do. (c) Make use of hearing-tubes. (e) I do not.—E. L. BARTON, <i>Principal</i> .
6	3	9	6	3	8					43. RHODE ISLAND STATE SCHOOL. (a) Yes. (b) There are 5 or 6 of our pupils to whom we give a daily drill or practice with a flexible ear-tube, as a means of securing correctness of articulation or enunciation, and improving the timbre of voice. As to this practice increasing their ability to understand spoken language to any great extent, I am rather sceptical. I do not consider myself an enthusiast for auricular instruction. I have seen more children kept back by it than improved. There are people and people outside of our schools for the deaf, at the homes of the pupils and elsewhere, who, in spite of all that is reasonable and sensible, will scream at deaf persons be they totally or only partially deaf. It seems so much more important in our crowd of necessary and practical instruction to give them the best facility for speech-reading possible. I thoroughly believe in its persistent and exclusive practice; that is, as compared with the manual alphabet or signs. Vide my report for 1887, which I send with this. (d) I never knew but one person who could hear any better by the use of an audiophone or dentaphone. (e) I do not. (f) 6 at present. (g) 3 at present. (h) Probably 9 at present. Possibly there have been nearly 25 in all, since the school was organised in 1877. (k) The 6 mentioned above and probably 2 others.—ANNA M. BLACK, <i>Principal</i> .

II. AURICULAR INSTRUCTION—(continued).

(f) How many pupils in your Institution do you consider to be semi-deaf?	(g) How many of these were deaf from birth?	(h) How many pupils in your Institution were deaf from birth?	(i) How many pupils do you have under Auricular Instruction?	(j) How many of these were deaf from birth?	(k) Number of pupils who can hear the ringing of a dinner-bell.
6	5	11	3	1	6
—	—	—	—	—	—
1	1	17	—	—	9
—	—	—	—	—	—

GENERAL REMARKS
<p>(a) Do you make any special efforts to develop and utilise the hearing power of your semi-deaf pupils?</p> <p>(b) I shall be glad of any details regarding the methods of instruction employed in such cases and the results.</p> <p>(c) Do you use instrumental aids, such as hearing tubes or trumpets, audiphones, dentaphones, &c.?</p> <p>(d) What is your opinion concerning the relative merits of such apparatus?</p> <p>(e) Do you know of any facts indicating improvement of hearing power at or about the age of puberty?</p>
<p>44. ST. LOUIS DAY SCHOOL.</p> <p>D. A. Simpson, Principal. No reply to circular letter received to date, June 2, 1888.</p>
<p>45. NEW ENGLAND INDUSTRIAL SCHOOL.</p> <p>(a) Yes, when we have such cases. (e) No. (h) Of 22 now present, 11 were born deaf. (i) We have had 3.—NELLIE H. SWETT, <i>Principal</i>.</p> <p>46. DAKOTAH SCHOOL.</p> <p>James Simpson, Superintendent. No reply to circular letter received to date, June 2, 1888.</p>
<p>47. MILWAUKIE DAY SCHOOL.</p> <p>(a) No. (e) Among the 45 pupils which I have had in my school within the last 4 years, I have in vain sought for development of hearing power at that age. (f) One semi-deaf. She was congenitally deaf. She was completely deaf when she entered in 1885. From 1886 to 1887 her hearing developed considerably, though she was only 9 years of age. Within the last year no improvement in hearing has taken place, although she is improving physically and mentally. Her ear is so sensitive now that she cannot bear the loud voice close to her ear, nor even the careful use of an ear-trumpet, latest pattern, made by a gentleman in Washington (I cannot recall his name just now). [Probably Maloney.—A. G. B.]</p>

(k) 17 out of 45 congenitally deaf. (l) Used a very large dinner-bell, diameter at mouth 7½ inches, height 5 inches. Nine out of 35 pupils heard this bell within a range of from 4 to 6 feet.—PAUL BINNER, *Principal*.

48. PENNSYLVANIA ORAL SCHOOL.

(d) I think above instrumental aids are useful to some. Some seemed to be helped as well without instrumental aid. (f) I have at present but 2 pupils who would be called 'semi-deaf.' One entered a few days ago. Latter speaks some words imperfectly. The other one did not speak on entering—hearing seemed to develop while she was acquiring speech through the eye. I have had but one assistant with 26 pupils this winter, therefore I could not form an aural class with *one* semi-deaf pupil. Still as the teacher speaks distinctly to her I have felt she would certainly gain somewhat *if* her deafness is of a nature to admit of aural development. I had a child who showed good results in aural development who left me to go to Philadelphia because it was a *boarding-school*. (h) Fifteen supposed to be deaf from birth.—EMMA GARRETT, *Principal*.

49. NEW JERSEY SCHOOL.

(a) I use the ordinary flexible conical tubes. (c) As stated above. Have found metallic trumpets of little aid, on account of lack of clearness proportional to intensity of sound. Have met but 1 case in which the audiphone was helpful. (d) In my own practice I have found the flexible tubes useful in a greater or less degree in all cases of not too profound deafness; the metal trumpets helpful only where there was some recollection of the sounds of speech. Have never tried the dentaphone. (e) No case in which I could say positively that such facts were shown, but 2 or 3 in which my observation, not confirmed by careful tests, gave me the impression that such improvement took place. (g) 6 born deaf—only 1 after 2 years. (j) 5 born deaf—the others from 2 years and under.—WESTON JENKINS, *Superintendent*.

50. UTAH SCHOOL.

Henry C. White, *Principal*. No reply to circular letter to date, June 2, 1888.

51. NORTHERN NEW YORK INSTITUTION.

Henry C. Rider, *Superintendent*. No reply to circular letter to date, June 2, 1888.

II. AURICULAR INSTRUCTION—(continued).

(f) How many pupils in your Institution do you consider to be semi-deaf?	(g) How many of these were deaf from birth?	(h) How many pupils in your Institution were deaf from birth?	(i) How many pupils do you have under Auricular Instruction?	(j) How many of these were deaf from birth?	(k) Number of pupils who can hear the ringing of a dinner-bell
2	0	—	—	—	—
5	0	5	—	—	—
3	—	7	—	—	2
4	0	5	—	—	12
0	—	3	—	—	—

(a) Do you make any special efforts to develop and utilise the hearing power of your semi-deaf pupils?

(b) I shall be glad of any details regarding the methods of instruction employed in such cases and the results.

(c) Do you use instrumental aids, such as hearing tubes or trumpets, audiphones, dentaphones, &c.?

(d) What is your opinion concerning the relative merits of such apparatus?

(e) Do you know of any facts indicating improvement of hearing power at or about the age of puberty?

GENERAL REMARKS.

52. FLORIDA INSTITUTE.
Two of the pupils can hear a little (semi-deaf). One became deaf at 2 years of age, and the other gradually lost her hearing—cause not known. We have never made any effort to develop the hearing of these pupils, though I doubt not that at least one of them could be much benefited by a systematic course of training.—PARK TERRELL, *Principal*.

53. WASHINGTON SCHOOL (VANCOUVER W.T.).
(a) No. (e) No.—JAMES WATSON, *Director*.

54. NEW ORLEANS PUBLIC SCHOOL.
(a) Have not tried any yet. (d) I cannot form any opinion, as I have no experience as to the matter. (e) I don't know any. (f) 3 semi-deaf. (g) 7 of them deaf from birth [? A. G. B.]. (h) 7 born deaf.—R. B. LAWRENCE, *Principal*.

55. EVANSVILLE SCHOOL.
(a) No. (d) I once witnessed such apparatus at the Illinois Institution. I should think they are of great value to those who can hear.—CHARLES KERNEY, *Principal*.

56. LA CROSSE SCHOOL.
(a) None.—ALBERT HARDY, *Superintendent of Schools*.

57. NEW MEXICO SCHOOL.

(a) I do think some of having articulation here if a good number of semi-deaf scholars can be had, but the people here in this territory, being mostly Mexican, speak Spanish, and if their deaf youths be taught to speak in English in this school it would be of *no* use to them, as they cannot talk orally to their Spanish-speaking folks. They generally want them to get education here—especially in the Roman Catholic creeds. English is now taught here according to the Committee's decision. (k) One can hear the door-knock if about 7 yards near the door.—LARS M. LARSON, *Superintendent*.

DENOMINATIONAL AND PRIVATE SCHOOLS.

1. WHIPPLE'S HOME SCHOOL.

(a) No. (d) We have had no experience with the instruments mentioned. (e) No. (k) Two can hear the dinner-bell when rung in the room.—MARGARET HAMMOND, *Principal*.

2. GERMAN EVANGELICAL LUTHERAN INSTITUTION.

(a) No, but we utilise it for the best advantage of teacher and pupil. (e) No. (d) We don't care anything about it. We have tried it, but found it almost useless. (e) No; we have not yet investigated this matter, nor have we heard or read anything about it.—D. H. UHLIG, *Director*.

3. ST. JOHN'S CATHOLIC INSTITUTE.

(a) No. (e) Nothing reliable.—Rev. CHAS. FESSLER, *President*.

4. KNAPP'S INSTITUTE.

F. Knapp, Principal. No reply to circular letter to date, June 2, 1888.

5. VOICE AND HEARING SCHOOL.

(a) Yes. (b) [Miss McCowen, Principal, was one of the teachers of the first auricular class in the Nebraska Institution, and has since established a 'Voice and Hearing School' at Englewood, near Chicago, Ill. She forwards a statement respecting her school, which is printed at the end of this synopsis, among other papers referring to auricular work.—A. G. B.]

2 0 2 — 1

2 1 — — 2

1 0 19 1 0 —

4 0 3 — —

— — — — —

— — — — —

II. AURICULAR INSTRUCTION — (continued).

(f) How many pupils in your Institution do you consider to be semi-deaf?	(g) How many of these were deaf from birth?	(h) How many pupils in your Institution were deaf from birth?	(i) How many pupils do you have under Auricular Instruction?	(j) How many of these were deaf from birth?	(k) Number of pupils who can hear the ringing of a dinner-bell
3	1	7	2	0	—
GENERAL REMARKS					
<p>6. MARY GARRETT'S SCHOOL.</p> <p>(a) Yes. (b) Whenever I can find a pupil who can hear vowel sounds I endeavour to develop the hearing by use, and by teaching him words in his ear. If he cannot at first copy the sound or word I repeat it in his ear. I show him what it is with my lips, and then repeat it in his ear to teach him the meaning of the sound. The pupils I have so trained improve in hearing, and the two I have under instruction now have learned to recognise many words if spoken within a quarter of a yard of their ears. (c) I have tried the audiphone and the Currier tube. (d) In the cases I have tried I prefer the tube, but while the pupils admit that they can hear better through a tube, they object to its use and prefer that I should speak near their ears. (f) 3, but they are more than 'semi-deaf.' (h) 1 from birth, 1 at 6 months, 1 at 18 months.—MARY S. GARRETT, <i>Principal</i>.</p>					
<p>7. MARIA CONSILIA INSTITUTE.</p> <p>(a) We do in a few cases only. (c) We do not use any instrumental aids. (k) Five of our pupils can hear the large bell, 1 can hear the door-bell.—SISTER ADÈLE, <i>Principal</i>.</p>					
<p>8. CINCINNATI ORAL SCHOOL.</p> <p>Mrs. Katharine Westendorf, <i>Principal</i>. No reply to circular letter received to date, June 2, 1888.</p>					
<p>9. CHICAGO CATHOLIC SCHOOL.</p> <p>No reply to circular letter received to date, June 2, 1888.</p>					

10. MISS KEELER'S ARTICULATION CLASS.

The 2 semi-deaf children have only a *very* slight degree of hearing. I have used speaking tubes with success in the cases of the 2 semi deaf-mutes.—SARAH WARREN KEELER, *Principal*.

11. CATHEDRAL SCHOOL.

(a) We have not tried the auricular method.—E. P. CLEARY, *Principal*.

12. THE SARAH FULLER HOME.

[Just organised. No report.—A. G. B.]

SCHOOLS FOR THE DEAF IN CANADA.

1. MONTREAL CATHOLIC INSTITUTION FOR MALES.

Rev. J. B. Manseau, *Principal*. No reply to circular letter received to date, June 2, 1888.

2. MONTREAL CATHOLIC INSTITUTION FOR FEMALES.

Rev. Sister Mary of Mercy, *Superioress*. No reply to circular letter received to date, June 2, 1888.

3. HALIFAX INSTITUTION.

(a) No special efforts have been made in this direction. (c) Have used the audiphone and dentaphone to some extent. (d) I have not found either the audiphone or dentaphone of much value in teaching articulation. (e) Have not had my attention called to any instance of this kind. (f) By 'semi-deaf,' I understand such as can distinguish sounds or words by ear. (h) Probably 56 out of 75 pupils. (k) 21 out of 75 can hear a dinner-bell more or less distinctly when rung close to the head or ear. Six of these in one ear only—chiefly the right ear. One can distinguish the sounds *o* and *e*, and 2 of them most of the vowel sounds, and many words, as well as the bell at a considerable distance.—J. SCOTT HUTTON, *Principal*.

2	—	6	2	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
2	1	56	—	—	21

II. AURICULAR INSTRUCTION—(continued).

(f) How many pupils in your Institution do you consider to be semi-deaf?	(g) How many of these were deaf from birth?	(h) How many pupils in your Institution were deaf from birth?	(i) How many pupils do you have under Auricular Instruction?	(j) How many of these were deaf from birth?	(k) Number of pupils who can hear the ringing of a dinner-bell
5	—	—	—	—	—
<p>4. ONTARIO INSTITUTION.</p> <p>(a) No. (c) We have tried all the aids mentioned with little results. (d) I know of 1 case where the audiphone is of great benefit to a lady in Belleville. With it she can hear ordinary conversations—without it she is very hard of hearing. (e) No. (f) Four or five. (g) Have no information on this point. (h) See Reports. (i) Cannot give reliable statistics—so many of the smaller ones mistake hearing for vibration.—R. MATHISON, <i>Superintendent</i>.</p>					
<p>5. MACKAY INSTITUTION.</p> <p>(a) We have done so, but were obliged to discontinue for want of time. (b) We used no instruments, merely spoke in a loud key into the child's ear, and I have no doubt much could have been accomplished, as the improvement in the hearing of each one so instructed was much improved. (c) No.—HARRIET E. MCGANN, <i>Superintendent</i>.</p>					
<p>6. NEW BRUNSWICK INSTITUTION.</p> <p>A. H. Abell, Principal. No reply to circular letter received to date, June 2, 1888.</p>					
<p>7. FREDERICKTON INSTITUTION.</p> <p>Albert F. Woodbridge, Principal. No reply to circular letter received to date, June 2, 1888.</p>					
<p>GENERAL REMARKS.</p>					
<p>(a) Do you make any special efforts to develop and utilise the hearing power of your semi-deaf pupils?</p> <p>(b) I shall be glad of any details regarding the methods of instruction employed in such cases and the results.</p> <p>(c) Do you use instrumental aids, such as hearing tubes or trumpets, audiphones, dentaphones, &c.?</p> <p>(d) What is your opinion concerning the relative merits of such apparatus?</p> <p>(e) Do you know of any facts indicating improvement of hearing power at or about the age of puberty?</p>					

‘Nebraska Institute for the Deaf and Dumb, Omaha, Neb. :
 ‘ May 4, 1888.

MY DEAR PROF. BELL,—Herewith please find a brief history of the aural work, with the tables you desire. This is as condensed as I could very well make it and give what you desire. Hoping it may prove to be what you wish, and to be of use to you,

‘ I am, very truly yours,

‘ J. A. GILLESPIE.

‘ Prof. A. G. Bell, Washington, D.C.’

‘ CONDENSED HISTORY OF AURAL INSTRUCTION.

‘The history of the development of the aural method of instruction for the semi-deaf is as follows:—

‘Eight years ago a class of the older semi-deaf was organised as an experimental class, and supplied with the Rhodes audiphone.

‘By a patient and laborious course these children were taught to recognise sounds, by repeating again and again various vowel sounds, and finally words and sentences. This result was obtained after about a three months’ drill, half an hour each day, beginning at a point with them where they did not recognise sounds as such, but simply as noises.

‘The next class in order was one of the smaller children of the school. In this case, after a similar drill, the results were equally or more satisfactory.

‘In the fall of 1882 a class of the younger semi-deaf children was organised, whose instruction in all school work was to be carried on by this method.

‘On the close of the school year, June following, this class had accomplished all, in an intellectual point of view, that could be expected of a beginning class taught by the ordinary methods. They had a vocabulary of two hundred to five hundred words which they could recognise by sound, speak fairly well, and use with facility in language exercises. A portion of these pupils left the State, some to attend the public schools and others to continue the work elsewhere. This method has

been pursued uninterruptedly until the present time. In all, thirty-six pupils have been instructed by it. Of these, nineteen are congenital, fifteen from disease (two not stated), twenty-four males, twelve females. Of those deaf from disease, three lost hearing under one year of age, five between one and two years, remainder not stated.

‘ At present there are one hundred pupils in attendance. We have sixteen under aural instruction ; of these, nine will leave school as hard-of-hearing speaking people, with perhaps no greater degree of disadvantage from deafness than those who have become partially deaf in adult life.

‘ After eight years of experience in this work and of observation elsewhere, it is my firm belief that at least fifteen per cent. of our deaf-mute population are fit subjects for aural instruction, and that a majority of these can be graduated as hard-of-hearing speaking people, and the condition of the remainder greatly elevated above that of the ordinary deaf-mute.

‘ As to what takes place in a scientific point of view in aural work, my opinion is that in some cases there is a development in the hearing power, as well as improvement due to an increased knowledge of spoken language. In the majority of cases I think it proper to say that there is an improvement in both directions.

‘ As to the best means of testing the hearing power, I know of nothing better than the small class-room bell. We have used the audiometer, but the results with the bell have been equally as satisfactory.

‘ As to artificial aids to hearing, the ordinary flexible tube is as good as anything. The audiphone is useful in some cases, its value dependent upon the cause of deafness and condition of the auditory nerve and of the teeth.

‘ In three cases which have come under my notice there has been a decided change for the better in the condition of the hearing as the individuals entered the age of puberty. My confidence in the possibilities of this method is but strengthened by experience and observation.

‘ J. A. GILLESPIE, *Superintendent,*
Nebraska Institute for the Deaf and Dumb.’

Cause of Deafness	Number of Pupils in School	Number of Pupils capable of Auricular Instruction	Number actually under Auricular Instruction
Congenital . . .	48	12	10
Adventitious . . .	44	4	4*
Not stated . . .	8	1 (adult 1)	1 (adult 1)
Total . . .	100	18	16

* One at the age of 3 years, 1 at the age of 2 years, and 2 at the age of 1 year.

‘ National Deaf-Mute College, Kendall Green, near Washington, D.C. :
‘ May 7, 1888.

‘ MY DEAR PROFESSOR BELL,—Let me thank you for your kind note of the 1st inst., and while I fear that I cannot at present write anything that would be of any value for your purpose, perhaps the enclosures may be of some use to you. At one time I thought of making at least a little memorandum for our “ Philosophical Society ” upon auricular work, and the enclosures were sent to me in reply to my requests for information.

‘ I also had letters from Dr. Gillett and Mr. Crouter, but these added no information of consequence.

‘ I have made no use of Mrs. Taylor’s interesting paper, and turn it over to you.

‘ One point of considerable importance in regard to auricular work is this: very imperfect audition may be utilised with profit in improving the modulation of voice and the general quality of the articulation if persistently appealed to by the teacher of articulation. Another point is that many cases of feeble hearing power are to be found among the so-called “ congenitally deaf,” where the deaf habit has been formed largely through neglect.

‘ In reference to visible speech, I feel that you will be fully justified in urging that all teachers of articulation should be thoroughly grounded in the mechanism of speech; and to this end “ visible speech ” gives a completeness and definiteness and sense of mastery not readily acquired by any purely experi-

mental system. And, finally, let me say I am very glad you have accepted the invitation to appear before the Commission, and if I can serve you, or the work rather, in any way, please let me know it. Excuse delay in answering your note and present haste.

‘Yours truly,

‘J. C. GORDON.’

‘Nebraska Institute for the Deaf and Dumb, Omaha, Neb.:

‘February 15, 1888.

‘MY DEAR PROFESSOR,—I owe you an apology for not replying sooner, but I seemed to be so busy, I did not get round to it. As to aural work, there is nothing new to say. It is a fact, and, as an established fact, has become a part of our regular school work. I enclose a paper by Mrs. W. E. Taylor (Miss Plum) which will give you an idea of what she thinks. She has been our aural teacher for four years, and knows what she is talking about. I have had no reason to modify my views with reference to this matter as yet. Everything I see in connection with it but confirms me in the opinion that all semi-deaf children should be taught by this method, and also that the percentage of pupils that can be instructed this way will not fall below that we have already suggested.—Very truly,

‘J. A. GILLESPIE.

‘Professor H. C. Gordon, Washington, D.C.’

By Mrs. W. E. TAYLOR (formerly Miss PLUM).

‘Aural work has been so long an established fact that the history of the past three years presents few new features and gives the results of few new experiments, but is merely a continuation and elaboration of the work begun five years ago.

‘During these three years we have had twenty-one pupils under this instruction. Of these, one was removed to enter the public schools, and others to different States, leaving us sixteen

in our school of one hundred. Our work with these leads us to believe that, generally, development is in educating the sense already possessed. In three instances the hearing power itself has increased.

' We do not now use the audiphone, because the ear-trumpet is preferred when any artificial aid is used for our present needs. By this means the pupil is to correct his speech by hearing his own voice as well as that of the speaker. This will not always answer, however, as there are on record cases where the audiphone has been beneficial when the trumpet would not meet the demand. In this connection we mention one boy who was started by the audiphone when his prospects of using his ears were decidedly slight. He continued its use for a few months, when it was thought no longer necessary to use any instrument for his further assistance. His hearing grew stronger, and with it his speech rapidly improved. In three years he became able to converse with his family by the use of his hearing, and to respond to their calls when not in the same room. His voice became natural and pleasant. This last is a fact that scarcely needs mention, as the speech of all aural subjects is more perfect and more easily made so than those of articulation, while the voices are infinitely better modulated.

' There have been several interesting cases in the Institution during the time you mention.

' Ernest Clark, of Columbus, Neb., had considerable hearing, being able to recognise sounds made by a voice from a distance of sixteen feet. He had been taught the elements of sound at home by what his mother described as a "natural method," but which we would designate "aural." Pursuing our usual line, the boy soon took school-room conversation. Being greatly interested in machinery, he was taught the names and movements of machines in the buildings. These names he pronounced easily, and with an articulation as perfect as could be desired; nor did he have any help in that direction. His hearing did not increase, but training helped him to use what he had. He is now in the public schools.

‘ Another boy, John McCartney, of Willow Springs, Neb., entered with us after some years’ teaching in a sign class. After four years—one spent on the farm—he is able to do without signs, and, hearing him talk, a stranger would imagine him to be anything but a congenital mute. This is one of the cases in which there has been a growth of the hearing as well as education.

‘ A few weeks ago, a young man, eighteen years of age, never before in school, came to us. His hearing is very slight, and as yet he has not a large amount of voice. His first training was the shouting of sounds in various degrees of pitch or volume for him to imitate. This was to help him use his voice, and, by aid of the trumpet, the point was gained. The next step was to teach him the long, easily-heard sounds, as *ō*, *o*, *a*, *a*, and simple words containing them. To get a correct utterance of the consonant’s articulation, help was given, because he has not yet a sufficient quantity of hearing to enable him to imitate them. His hearing is rapidly improving, and he recognises known sounds and notices new ones farther and more quickly than at first. His present work is the learning of “action words,” having previously taken about fifteen nouns, names of things with which he was familiar.

‘ In our beginning class now, we follow the same outline that we should were these sign children, being careful to select those words whose vowel element is most easily recognised, and whose consonants are easiest to reproduce.’

• Voice and Hearing School for the Deaf,
• Wabash Avenue, near Sixty-third Street, Englewood, Ill. :
• May 1, 1888.

‘ DEAR SIR,—Your letter of inquiry received. Am glad to furnish the desired information with regard to my own school, hoping it will aid the cause of this afflicted class, in whom I am so deeply interested.

‘ In answer to your questions, will state briefly :—

‘Have had two cases in which I considered there was real increase of hearing power, both quite marked—one due to the removal of a large mass of hardened wax from the ear, and the other to increased bodily vigour (the result, no doubt, of more active exercise and regular habits).

‘*Apparent* improvement in hearing is usually increase in knowledge, due to *cultivation* of (1) *attention* and accurate (2) *perception* of sounds, that *without training* were but *disturbing noises*, if heard at all.

‘I have only one pupil who appears to be in the least benefited by the audiphone.

‘The London Dome is a favourite with all who hear *when listening to music*. The flexible ear-tubes are relied on for conversation when any instrument is used.

‘1. Will further add: the only means of communication used in our home or school is idiomatic English.

‘2. All class instruction is given through lip-reading, as there are some in every class who are totally deaf, and those who hear most hear not enough to dispense with lip-reading.

‘3. Aural instruction is special, and given individually or introduced in their games, and the pupils helped to use each other’s hearing, &c., &c.

‘4. All hand work—Kindergarten, drawing, painting, modelling, type-setting, and wood-carving (in all of which boys and girls engage together with equal success), are used as a means of recreation and as a pleasurable *incentive* to *speech* as well as for the hand and eye training.

‘Have tabulated answers to your remaining questions, which I hope will be available.

‘Very respectfully,

‘MARY McCOWEN.

‘Mr. Alexander Graham Bell, Washington, D.C.’

—	Whole number of Pupils in my School since its opening	Number capable of being taught through Hearing	Number with very slight Hearing	At what Age became Deaf						
				Under 1 Year	Between 2 and 3 Years	Between 3 and 4 Years	Between 4 and 5 Years	Between 5 and 6 Years	At 7 Years	At 12 Years
Congenital . . .	26	7	5	—	—	—	—	—	—	—
Adventitious . . .	23	11	2	1	7	2	3	7	2	1
Total . . .	49	18	7	—	—	—	—	—	—	—

‘ One of the above pupils was also born *blind*, but has slight sight now, as the result of an operation. Her improvement in every way is very satisfactory. Another pupil not enumerated in either table heard perfectly, but was dumb from feeble-mindedness. I taught her to speak in short sentences, and she is now progressing satisfactorily under a private teacher.

‘ Kindergarten Class (in 2 divisions), 8 pupils.

‘ Daily exercises in Kindergarten games, Kindergarten occupations, aural drill, voice building, writing and blackboard drawing, incidental language, lessons whenever possible.

‘ Second Class, 2 pupils.

‘ All above lessons continued with the addition of special—
1. Language lessons on all common objects and everyday actions, with easy idiomatic descriptions of same; 2. Writing with ink; 3. Drawing in charcoal (from the object); 4. Clay modelling (easy objects).

‘ Third Class, 6 pupils.

‘ All previous work continued and expanded. More difficult idiomatic descriptions of all that is done, seen, heard, and spoken of in actual life, here, or in lesson books. Regular lessons in reading and arithmetic with book, and oral geography with map.

‘ Fourth Class, 3 pupils.

‘ Read *fluently* in any Third Reader. This year will *complete* Barton’s “Language Lessons in Arithmetic,” Barnes’ “Primary History of United States,” Swinton’s “Introductory Geography.” Daily lessons in general information in advanced idiomatic language, using objects, animals, plants, children’s magazines,

No. of Pupils	Age	Age when entered School	Time in this School	Totally Deaf	Hear shrill metallic noise, but not voice	Undecided as to hearing	Hear easy words spoken very loud	Hear and understand perfectly everything spoken close to the ear	Receiving daily auricular instruction	Had some use of hearing when entered School	Had no use of hearing when entered School	Congenital	Adventitious	Age when became Deaf	Cause of Deafness	Knowledge of Language when entered this School
1	3 yrs.	3 yrs.	7 ms.	-	-	+	-	+	+	+	+	+	+	2 yrs.	Scarlet fever.	None. Makes himself understood in baby vocabulary.
2	5 yrs.	5 yrs.	2 wks.	-	-	+	-	+	+	+	+	-	+	2 yrs.	-	Lost speech entirely. Has been taught to speak twenty words by private teacher this year.
3	6 yrs.	6 yrs.	2 wks.	-	-	-	-	-	-	-	-	-	-	-	-	None.
4	4½ yrs.	4½ yrs.	21 ms.	+	-	-	-	-	-	-	-	+	+	2½ yrs.	Spinal meningitis.	Used an occasional word under excitement which his mother only could understand.
5	5 yrs.	5 yrs.	7 ms.	+	-	-	-	-	-	-	-	-	-	-	-	None.
6	5 yrs.	5 yrs.	4 ms.	-	-	+	-	-	+	+	+	+	+	-	-	None.
7	5 yrs.	5 yrs.	7 ms.	-	-	-	+	-	-	-	-	+	+	-	-	None.
8	5½ yrs.	5½ yrs.	15 ms.	-	-	-	-	-	-	-	-	+	+	-	-	Had been taught by sign eight months, with a long vacation following. Remembered 15 written words. Spoke none.
9	7 yrs.	5 yrs.	27 ms.	-	-	-	-	-	+	+	+	+	+	-	-	None.
10	8 yrs.	6 yrs.	17 ms.	+	-	-	+	-	-	-	-	+	+	-	-	None.
11	8 yrs.	5 yrs.	3 yrs.	-	-	-	-	-	-	-	-	+	+	-	-	None.
12	7 yrs.	7 yrs.	27 ms.	-	+	-	+	-	+	+	+	+	+	-	-	Had been in private school taught by sign 1 year. Seemed to remember no words.
13	9 yrs.	8 yrs.	7 ms.	-	-	-	+	-	+	+	+	+	+	-	-	None.
14	11 yrs.	9 yrs.	15 ms.	-	-	-	+	-	+	+	+	+	+	5 yrs.	Scarlet fever.	Used slightly imperfect speech; did not read lips; wrote nothing.
15	7 yrs.	7 yrs.	5 yrs. & 7 ms.	-	-	-	-	+	+	+	+	+	+	-	-	None.
16	13 yrs.	7 yrs.	4 yrs. & 7 ms.	-	-	-	-	+	+	+	+	+	+	-	-	None.
17	11 yrs.	11 yrs.	13 ms. & 7 ms.	-	-	-	-	+	+	+	+	-	+	-	-	Talked but only an occasional word that a stranger could understand; wrote nothing.
18	8 yrs.	8 yrs.	4 yrs.	-	+	-	-	-	-	-	-	+	+	-	-	Had been in sign school 3 years; knew 100 written words.
19	15 yrs.	11 yrs.	4 yrs.	+	-	-	-	-	-	-	-	-	-	2 ms.	A fall.	Had been in a morning session oral school 2 years. Knew 50 words, spoken and written.
20	19 yrs.	15 yrs.	4 yrs.	-	-	-	+	-	+	+	+	-	+	5 yrs.	Scarlet fever.	Had attended sign Institution 3 years. Spoke 25 words; wrote 400 words; construction of sentences very poor.
20	-	-	-	4	2	4	5	5	14	4	12	13	7	-	-	-

* Have a very limited vocabulary, but are learning fast. † Attention easily attracted by a noise, but did not understand a word—is gradually losing her hearing this year. Gives her whole time to language and art work—Drawing, painting, designing, modelling in clay, wood-carving.

and the daily papers. Clay modelling continued and wood-carving begun.

‘MARY McCOWEN.’

‘New York Institution for the Deaf and Dumb, Station M.,
New York City: February 17, 1887.

‘MY DEAR MR. BELL,—In reply to your communications of February 10 and 12, I would state that the work of developing the latent hearing of such pupils as we find, upon careful examination, possess any appreciation of sound, has been carried on in this institution for nearly two years with the most gratifying as well as the most convincing results.

‘That the hearing power is increased I will not claim, but it is certain that voice sounds are more readily recognised and interpreted after a systematic course of aural training, and therefore, for practical purposes, it may not seem incorrect to assert that the hearing power is made available, if not increased, to such an extent, that many sounds which, before instruction was given, passed unnoticed, become readily appreciated and interpreted by the hitherto dormant ear.

‘About seventeen per cent. of our pupils have the ability to comprehend sounds to a degree sufficient to warrant the training of the auditory apparatus to perform, with instrumental aid, the functions which belong to the organ of hearing in its normal condition.

‘Experiments with the various “phones,” trumpets, and tubes led to the perfecting of my conico-cylindrical tube, for which, from the testimony of teachers using it, as well as from my own observation, I feel justified in claiming that it is the most powerful conductor of voice sounds yet devised, and it has this superiority over any of the wholly metallic trumpets—in its use none of the unpleasant “roarings” are perceived. Besides, being flexible, it is easily carried. My duplex ear-piece with two conico-cylindrical tubes attached thereto gives, in many instances, a most perfect bridge across the chasm between hearing

and actual deafness, because the deaf person is enabled to hear his own voice as well as that of the person speaking to him, and thus he is placed in as nearly a normal condition as is possible.

‘You can readily understand, from your past experience, of what great value this becomes in the culture of the voice.

‘For conducting musical sounds the London dome ear trumpet is very useful, but for voice sounds it does not equal my conico-cylindrical tube.

‘The audiphone was thoroughly tested here, but it was not of sufficient conducting power to render its use available in our work. It has a value, however, and for many cases, slightly deaf as we should term them, in which a greater degree of hearing has existed and education has been acquired prior to the diminution of that sense, is an all-sufficient aid to an understanding and appreciation of sound.

‘In a paper on “Aural Development,” which I wrote, at the request of Mr. Gillespie, for presentation to the Convention of last summer, I gave an outline of my method of procedure in the class-room as follows:—

“Begin by accustoming the ear to interpret the sounds of the short vowels and their modifications combined with the consonants, for the reason that a very large proportion of the syllables in the English language have the short vowel sounds, and also, because the first efforts required to master the pronunciation of our language are facilitated by a limited number of easy rules. The class being furnished with the double instrument before mentioned, write a sentence on the large slates, one in which short *a* only is used: That cat has a rat. Placing the ear-pieces firmly in the external meatus, speak the sentence slowly into the bells of the tubes gathered in a cluster and require each pupil to repeat the words as nearly as it may be possible for him. Next, repeat the sentence naturally and urge the pupil to attempt it in the same way without assistance. The pupil should be allowed to observe the lips of his teacher at the same time in order that he may the more readily imitate the

required sounds. If, however, this watching proves insufficient, his attention should be directed to the proper placing of the vocal organs for the production of such sounds. Do not expect or demand perfection; approximation should be regarded as progress at the first. You will discourage if you criticise too closely.

“Bear in mind that the child possessing normal hearing requires years of practice, and under the most favourable circumstances, before he can secure correctness of enunciation. Recall the recitations of ‘Mother Goose’ and kindred rhymes by your own little friends, in which scarcely a word would be spoken with correctness. Should we demand more from our pupils?

“Take up, seriatim, the sounds composing the words in the sentence: th-a-t—that, c-a-t—cat, h-a-s—has, a—a, r-a-t—rat, combining both eye and ear in assisting the pupil to reproduce the sounds uttered, thus securing lip-reading, hearing, and articulation.

“As soon as short *a* is mastered, take short *e*, as in pen; short *i*, as in pin; short *o*, as in not; short *u*, as in but; and develop them in the same way.

“In like manner take up the long vowels, and when you have completed them you will not only have laid a good foundation, but you will also have stimulated the acuity and increased the ability to perceive and comprehend sound.”

“I am certain that in time to come, as men become broader in sentiment and feeling, we shall find a better classification of the deaf, so that each class will have the instruction best adapted to its peculiar needs, regardless of sign, oral, or aural methods, and that in the same institution and under the same direction each of these systems will be honestly and faithfully carried out, to the end that each deaf person shall be so taught as shall best enable him to overcome his defectiveness and enjoy the society of the world about him.

“In the hope that your efforts to enlighten the members of the Royal Commission will be rewarded by an increased

endeavour to still further ameliorate the condition of the deaf,
not only abroad but at home, I am faithfully yours,

‘E. H. CURRIER.

‘To Dr. Alexander Graham Bell,
‘1,500 Rhode Island Avenue, Washington, D.C.’

‘The Arkansas Deaf-Mute Institute, Little Rock, Ark.: April 30, 1888.

‘DEAR SIR,—In reply to yours of the 26th I would say:—

‘1st. Professor J. A. Gillespie stated at the Convention of Teachers of Articulation held at New York in 1884 that “a majority of 15 per cent. of all the pupils of our schools for the deaf could be graduated as hard-of-hearing speaking persons.” He meant by this that 15 per cent. could be taught auricularly, and of these a majority would graduate as stated. I think this statement true; but after a long and careful trial I would prefer to place all those whose hearing was dullest in the regular articulation and lip-reading class, keeping only the most promising cases under special auricular instruction.

‘2nd. In my experience the large majority of those pupils who hear best are found among the congenitally deaf. Their deafness is so slight that had it occurred after becoming familiar with the sounds of spoken language, it would have caused no great inconvenience; but occurring before, prevented their learning to speak as normal children learn. I do not mean that this degree of deafness is more frequently congenital than adventitious, but that only those who are thus afflicted from birth or very early infancy are sent to our special schools for the deaf.

‘3rd. In my opinion, in most cases there is no increase in the hearing power, only an increase in the power of the mind to distinguish what it hears—a mental, not a physical, improvement. Still, I am convinced that, especially in congenital cases there is occasionally a real physical improvement in hearing.

‘4th. To ascertain the hearing power of a large number of

deaf pupils, I would prefer to make a preliminary test with the audiometer, submitting all who heard as high as 10° to further tests with the voice, tube, and audiphone or tuning-fork. In my own practice, after my new pupils feel at home with me and their surroundings, I go into their class-room and test them by shouting, when they are not expecting it. Afterwards I use the tube, &c.

‘ 5th. My attention has been directed to this subject for only four years. I share the general impression, that hearing sometimes improves about the age of puberty. It certainly has been noticed for the first time then. I have no evidence to offer, however. There *can* be no positive evidence till tests of hearing have been made and recorded for some years.

‘ 6th. The audiphone, or its equivalent, a thin piece of hard wood veneer slightly bent, is valuable as a test in some cases. However, even in those cases that at first seem to hear best by its use, it is usually laid aside after a while, and the pupil seems to hear without it. Out of 797 cases that I have examined carefully, I only know two who continued to think it an assistance. A good tuning-fork in the hands of a careful experimenter is an equally good test, but there is more danger of mistaking feeling for hearing than with the audiphone.

‘ In conclusion, allow me to say that I have found no facts contrary to the report of the Committee of which you were chairman, published in the “Annals” some three years ago.

‘ Any further information or assistance that I can render you will be a pleasure.

‘ Yours very sincerely,

‘ FRANCIS D. CLARKE, *Principal*.

‘ Alexander Graham Bell, LL.D., Washington, D.C.’

AURICULAR INSTRUCTION IN ARKANSAS INSTITUTE.

Age at which Deafness occurred	No. Pupils actually present	No. considered capable of Auricular Instruction	No. actually under Auricular Instruction	
Unknown	3	—	—	—
Congenital	53	9	7	4 taught entirely through the ear; the other 3 for one hour a day
1 year or under	9	—	—	—
1 year to 2 years	25	2	—	Both this year's pupils, and inconvenient to put them in class till after they learn to write
2 years to 3 years	7	2	1	One of these is a new pupil; can't write yet
3 years to 4 years	4	1	1	This boy says that he never could hear well. Father says he lost hearing at 4 from meningitis. Taught entirely through the ear
4 years to 5 years	2	0	0	—
5 years to 6 years	—	—	—	—
6 years to 7 years	2	—	—	—
10 years	1	1	—	Can be taught auricularly as well as any way, but is very dull.
12 years	1	—	—	—
16 years	1	—	—	—
Total	108	15	9*	

* 5 (4 congenital, 1 the doubtful case between 3 and 4) can hear ordinary conversational tones if slow and distinct, and say or understand anything.
 2 (congenital) hear well but have a very limited vocabulary.
 2 (1 congenital, 1 between 2 and 3) can hear very loud talking, or with the tube.

III. INTERMARRIAGES OF THE DEAF.

Opinions and Statistics submitted by Superintendents and Principals of American and Canadian Schools for the Deaf in answer to the Circular Letter of Inquiry.

1. AMERICAN ASYLUM.

Mr. Job Williams, Principal, directs attention to the following extract from the 1887 Report of the American Asylum:—

‘Much has been said of late concerning hereditary deafness and of the tendency from the intermarriage of deaf-mutes “to form a deaf-mute variety of the human race.” This impending catastrophe has been strongly set forth by Professor A. G. Bell, of Washington, D.C., who has industriously gathered statistics to sustain his theories, but whose data are too limited and too unreliable to draw therefrom any reliable conclusions. It is very difficult to get reliable statistics even in regard to those now living and at school, and time and distance increase the difficulty more than in proportion to the square of the time and distance. Let me illustrate. A deaf child entered our school a short time ago, and in answer to the question, ‘What deaf-mute relatives has she?’ the reply came back, ‘None.’ Happening to know that the father was a deaf-mute, I divided the above general question into six or eight specific questions, and found that the child had *ten* deaf-mute relatives. Again, correct statistics as given are often very misleading; *e.g.*, we have in school 13 children, both of whose parents are deaf-mutes; or to state the case differently:—

‘Three pupils have both parents, 2 brothers, 2 sisters, 2 uncles, 1 aunt, and 1 cousin.

‘Two pupils have both parents, 3 brothers, 1 sister, 2 uncles, 2 aunts, and 1 cousin.

‘Two pupils have 2 grandparents, both parents, 1 brother, 2 sisters, 2 uncles, 1 aunt, and 4 cousins.

‘Two pupils have 2 grandparents, both parents, 2 brothers, 1 sister, 2 uncles, 1 aunt, and 4 cousins.

‘Two pupils have both parents, 2 brothers, 1 sister, 1 uncle, and 2 cousins.

‘Two pupils have both parents, 1 brother, 2 sisters, 1 uncle, and 2 cousins.

‘Here are 13 children, and though an intelligent guess might be made as to the number of families from which they come, it would be impossible to be sure of that point from the above data. There might be 3 families, or there might be 13, or any number between those, so far as could be determined from the facts given. The truth of the matter is, there are *three* families, having respectively 4, 4, and 5 deaf-mute children.

‘Glance again at the above table. Would it not puzzle one to be sure how many people were really involved in the figures there given? There might be *sixty-one* so far as one could tell from the table itself, but there really are only *twenty-seven*. Not a few of the published facts relating to deaf mutes are as useless as the above table as bases from which to draw conclusions.

‘Moreover, almost anything may be proved by facts, provided the line of investigation be carefully chosen, and as carefully restricted within narrow limits. To take a very few families, in which both parents are deaf-mutes and prolific in deaf-mute offspring, gather the facts most carefully in regard to them, and draw therefrom general conclusions, while ignoring the hundreds of other families in which also both parents are deaf-mutes, gives results of little scientific value. For instance, we have had in school, in the decade under review, pupils from eleven families, in which the whole number of children is 73, of whom 30 are deaf-mutes. Now, so far as can be ascertained, there is no blood relationship between the parents in these families, nor was there any deafness in any previous generation which could be inherited; yet *forty-one per cent.* of the children are deaf-mutes.

Should we confine our investigation to this narrow limit, we might conclude that there was a strong tendency in the whole human race to produce deaf-mute offspring, and therefore all marriage should be discouraged. That would be a no more hasty conclusion than some that have been drawn concerning the tendency of deaf-mute parents to produce deaf offspring.

‘ A more thorough investigation than has yet been made is needed before any reliable conclusions can be drawn. If Professor Bell, with the ample means at his command, would take the whole pupilage of the American Asylum, or of the Institution at Washington Heights in New York City, or of the Institution in Philadelphia, and trace the descendants of every pupil in attendance since the opening of the school about seventy years ago, he might give us facts from which reliable and broad general conclusions could be drawn.

‘ In the absence of any such general investigation, we can give only the few facts that we have been able to gather. Perhaps, in time, enough fragmentary reports may be collected to be of value.

‘ Since the last decennial report of this school 289 pupils have been admitted. In regard to these, great pains have been taken to get reliable facts. Of these, 118, or nearly 41 per cent., were born deaf.

‘ Sixty-seven pupils, coming from 47 different families, have deaf-mute relatives, and in the same families there are 154 hearing children, and 19 other deaf-mute children, not at school here in the last ten years. So that *thirty per cent.* of the children in these 47 families are deaf.

‘ In 8 families, both parents being deaf-mutes, there are 21 children, of whom 15, or *seventy-one per cent.*, are deaf, all congenitally so.

‘ In 2 families, 2 grandparents and both parents being deaf, there are 5 children, all congenitally deaf.

‘ In 1 family, both grandfathers, 1 grandmother, and mother being deaf, there are 2 hearing children, and 2 children, or *fifty per cent.*, congenitally deaf.

‘ In 1 family, the mother being hard of hearing, there are 7 children, 4 of whom, or *fifty-seven per cent.*, are deaf.

‘ Were this a fair representation of the average condition of the offspring of deaf-mute parents, the facts would be appalling, but it is not. Revert again to the 2 families in which 5 children have both parents and 2 grandparents who are deaf. All these children are congenitally deaf. But this statement, in order to give it value as a scientific fact, should be modified by the further statement that 4 out of the 5 children come from 1 family, and that a daughter of the same grandparents, herself a deaf-mute, married a deaf-mute and has 4 children, all of whom can hear. So that the offspring of the 2 pairs of grandparents, instead of being 100 per cent. deaf-mutes, as appeared by the first statement, is in reality *only fifty-five per cent.*

‘ Again, it was stated that in 8 families, from which we have received pupils in the last ten years, both parents being deaf-mutes, there were in all 21 children, of whom 15, or *seventy-one per cent.*, were deaf-mutes. With this statement compare the following: From 1850 to 1874, inclusive, there were five general gatherings at the American Asylum of its former pupils. Among those assembled were the heads of 127 families having children. In 97 of these families both parents were deaf-mutes, and the aggregate number of their children was 266, of whom 32, or *twelve per cent.*, were deaf-mutes.

‘ In 30 other families but 1 parent was a deaf-mute, and there were 76 children, of whom 5, or *six and one-half per cent.*, were deaf-mutes.

‘ Let us look at another set of facts. In 25 families who have sent children to this school since the report of 1877, hearing parents, related by blood, have had 124 children, of whom 37, or *thirty per cent.*, were born deaf, and 20, or *sixteen per cent.*, were accidentally deaf—*i.e.*, *fifty-three per cent.* of their children were deaf.

‘ In 7 of these families the parents are first cousins, and have 45 children, of whom 6, or *thirteen per cent.*, are congenitally deaf, and 7, or *fifteen per cent.*, are accidentally deaf.

‘In 3 of these families the parents are second cousins, and have 18 children, of whom 5, or *twenty-seven per cent.*, are congenitally deaf, and 1, or *six per cent.*, are accidentally so.

‘In 4 of these families the parents are third cousins, and have 10 children, of whom 2, or *twenty per cent.*, are congenitally deaf, and 2, or *twenty per cent.*, are accidentally deaf.

‘In 9 of these families the parents are cousins (degree not specified), and have 43 children, of whom 6, or *thirteen and one-half per cent.*, are congenitally deaf, and 6, or *thirteen and one-half per cent.*, are accidentally deaf.

‘In 2 families the parents are uncle and niece, and have 8 children, of whom 1 is congenitally deaf, and 1 accidentally so.

‘Seventeen of the above 25 families have no deaf-mute relatives.

‘One more point. It is claimed by some that the large schools of this country, by allowing the use of the sign language, foster a clannish spirit, and promote the marriage of deaf-mutes to deaf-mutes, and so have a strong tendency to produce deaf-mute offspring, which would be avoided were the oral method adopted. Statistics do not sustain this theory, for in Germany, the home and chief advocate of oral schools for more than a century and a quarter, there are 96 deaf-mutes to 100,000 of population, while in the United States there are only 66 deaf-mutes to 100,000 of the population. It might not be amiss in both cases to take into account human nature as an important factor in the solution of the problem.

‘The following table shows all the children admitted to this school since May 1877 who have deaf-mute relatives, and also all children admitted during the same time whose parents are related by blood. Cases connected by a brace belong to the same family :—

DEAF MUTES HAVING DEAF RELATIVES

Case	Register No.	Age at which Deafness occurred	Consanguinity of Parents	No. of Hearing Children in Family	Deaf-Mute Relatives.										
					Grand-father	Grand-mother	Father	Mother	Brother	Sister	Uncle	Aunt	First Cousin	Second Cousin	
1	2145	Congenital	—	0	1	1	1	1	1	1	2	1	4	—	—
	2362	Congenital	—	0	1	1	1	1	1	1	2	1	4	—	—
	2327	Congenital	—	0	1	1	1	1	1	1	2	1	4	—	—
2	2146	Congenital	—	0	1	1	1	1	1	1	2	1	4	—	—
	2150	Congenital	2nd cousins	5	—	—	—	—	—	—	—	—	—	—	—
3	2285	Congenital	2nd cousins	5	—	—	—	—	—	—	—	—	—	—	—
	2152	Congenital	—	0	—	—	—	—	—	—	—	—	—	—	—
4	2386	Congenital	—	0	—	—	—	—	—	—	—	—	—	—	—
	2257	Congenital	—	0	—	—	—	—	—	—	—	—	—	—	—
5	2308	Congenital	—	0	—	—	—	—	—	—	—	—	—	—	—
	2153	Congenital	—	0	—	—	—	—	—	—	—	—	—	—	—
6	2378	Congenital	—	1	—	—	—	—	—	—	—	—	—	—	—
	2198	Congenital	—	1	—	—	—	—	—	—	—	—	—	—	—
7	2199	Congenital	—	1	—	—	—	—	—	—	—	—	—	—	—
	2247	Congenital	—	2	—	—	—	—	—	—	—	—	—	—	—
8	2264	Congenital	—	0	—	—	—	—	—	—	—	—	—	—	—
	1140	Congenital	—	1	—	—	—	—	—	—	—	—	—	—	—
9	2336	Congenital	—	3	—	—	—	—	—	—	—	—	—	—	—
	2214	Congenital	—	0	—	—	—	—	—	—	—	—	—	—	—
10	2388	Congenital	—	0	—	—	—	—	—	—	—	—	—	—	—
	2125	(?)	—	5	—	—	—	—	—	—	—	—	—	—	—
11	2126	(?)	—	5	—	—	—	—	—	—	—	—	—	—	—
	2391	Congenital	1st cousins	8	—	—	—	—	—	—	—	—	—	—	—
12	2128	4 years	1st cousins	8	—	—	—	—	—	—	—	—	—	—	—
	2134	4 years	Cousins	2	—	—	—	—	—	—	—	—	—	—	—

* Eight aunts and uncles together.

One cousin of mother is deaf and dumb
 One cousin of mother is deaf and dumb
 One cousin of mother is deaf and dumb
 One cousin of mother is deaf and dumb
 One cousin of mother is deaf and dumb

Her paternal grandparents were 2nd cousins, and had 9 deaf children

One cousin of father

PUPILS HAVING DEAF RELATIVES—(continued).

Case	Register No.	Age at which Deafness occurred	Consanguinity of Parents	No. of Hearing Children in Family	Deaf-Mute Relatives															
					Grandfather	Grandmother	Father	Mother	Brother	Sister	Uncle	Aunt	First Cousin	Second Cousin						
26	2136	Congenital	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
27	2103	Congenital	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
28	2140	Congenital	3rd Cousins	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
29	2141	1 year	—	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
30	2273	3 years	1st Cousins	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
31	2172	Congenital	1st Cousins	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
32	2173	Congenital	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
33	2176	1½ years	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
34	2178	Congenital	Cousins	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
35	2232	Congenital	Cousins	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
36	2204	Congenital	Cousins	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
37	2322	Congenital	—	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
38	2209	Congenital	—	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
39	2398	Congenital	—	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
40	2139	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
41	2326	Congenital	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
42	2329	Congenital	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
43	2330	Congenital	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
44	2331	Congenital	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
45	2335	Congenital	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
46	2338	Congenital	1st Cousins	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
47	2345	1½ years	—	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
48	2349	Congenital	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
49	2350	Congenital	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
50	2352	9 months	3rd Cousins	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

† Partially deaf.

Mother has 1 deaf-mute cousin.
 Father's sister married her 1st cousin, and had two deaf-mute children.

Two cousins of father.
 Two cousins of father.
 Two cousins of father.

Grandfather, uncles, and aunt grew deaf at about twenty-five years of age.

ALLEGED CAUSES OF DEAFNESS OF 289 PUPILS ADMITTED FROM MAY
1877 TO MAY 1887.

Bilious and catarrhal fever	1
Boils on head	1
Brain fever	5
Brain and bilious fever	1
Brain and catarrhal fever	1
Cholera infantum	3
Colds	2
Congenital	118
Congestion of brain	1
Diphtheria	2
Disease in head	7
Falls	10
Fever	5
Fits	4
Fright	1
Idiotic	3
Inflammation of the ears	1
Inflammation of the spine	1
Lung fever	1
Measles	8
Meningitis	21
Poisoned by toy	1
Salt rheum	1
Scarlet fever	53
Scrofula	2
Sickness	8
Small-pox	2
Spotted fever	1
Teething	1
Typhoid fever	4
Unknown	16
Whooping cough	4
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AGE AT WHICH DEAFNESS OCCURRED.

Congenital	118
Doubtful	18
Under 1 year	28
Between 1 and 2 years	39
" 2 and 3 years	26
" 3 and 4 years	21
" 4 and 5 years	15
" 5 and 6 years	8
" 6 and 7 years	7
" 7 and 8 years	2
" 8 and 9 years	1
" 10 and 11 years	2
" 12 and 13 years	1
Idiotic	3
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‘JOB WILLIAMS, *Principal.*’

2. NEW YORK INSTITUTION.

J. L. Peet, Principal. No reply to circular letter received to date, June 2, 1888.

3. PENNSYLVANIA INSTITUTION.

'I am of the opinion that the intermarriage of the deaf, particularly the congenitally deaf, should be discouraged.

'A. L. E. CROUTER, *Principal.*'

4. KENTUCKY INSTITUTION.

'As to the intermarriage of the deaf, my observation and experience is that those who were rendered deaf by accident or sickness are no more liable to have deaf offspring than people in possession of all their faculties. In the case of those born deaf there have been a number of cases where intermarriage has led to deaf-mute offspring. Such cases are infrequent, however, and confined mostly to one or two families that seem to have an inherited taint in the blood. In my judgment there is no danger of the formation of a deaf variety of the human race. . . .

'W. K. ARGO, *Superintendent.*'

5. OHIO INSTITUTION.

'Just now I am *very full* of work, arranging for examinations and the close of school. I will endeavour to have the work done for you soon.

'AMASA PRATT, *Superintendent.*'

No reply to circular letter received to date, June 2, 1888.

6. VIRGINIA INSTITUTION.

'On our general register of pupils we have the names of some 600 persons. This register includes all who have been

here since the opening of the school in 1839. In looking over this list I find that there have been a number of marriages in which both parties were mutes, and know of but three of these marriages which have produced deaf-mute offspring. In the case of the Rev. Job Turner, who married a deaf-mute, there were two children—sons—one of whom married a Miss Bean of Rockingham County. Miss Bean can hear and speak perfectly, but has three first cousins on her father's side who are congenital mutes. There are two children—grandchildren of Rev. Job Turner—both of whom can hear and talk. A first cousin of Mrs. Turner (last-mentioned) married a semi-mute, and they have three children who can hear and speak. Another first cousin married a semi-mute. This couple has one child which can hear and speak. I know of several families in Virginia (as many as ten, I think) in which deafness is common, but I have been able to hear of no children born to any of our old pupils that are deaf, beyond the cases cited above. . . .

‘THOMAS A. DOYLE, *Principal.*’

N.B.—The Rev. Job Turner is a deaf-mute; his children can hear and speak.—A. G. B.

7. INDIANA INSTITUTION.

William Glenn, Superintendent, expresses no opinion upon this question.

8. TENNESSEE SCHOOL.

Thomas L. Moses, Principal, expresses no opinion upon this question.

9. NORTH CAROLINA INSTITUTION.

‘I know of one family in our state where both of the parents are deaf and dumb, and all their children, nine in number, deaf and dumb; also two other families where both parents are deaf

and dumb, and two or three children in each deaf and dumb. I have known of four families in this city (Raleigh) where the parents are deaf and dumb, and several children in each, none of whom are deaf.

‘W. J. YOUNG, *Principal*,’

10. ILLINOIS INSTITUTION.

‘I do not discourage the intermarriage of the deaf, as they are usually more happily mated thus than where one of the parties only is deaf. The deaf need the companionship of married life more than those who hear, and it is a gross wrong to discourage it.

‘Deafness is not so frequently inherited by the offspring of deaf parents as by the offspring of parents who have deaf relatives other than children. There is a susceptibility to deafness in some kindreds which asserts itself whenever favouring conditions present themselves. These may occur in a family where both parents are deaf, or in some other family of the kindred. But the fact of the presence of deafness in the parents does not render the susceptibility more intense than in other families of the same kindred.

‘I enclose some extracts from my last report, which may be of some aid to you:—

‘I have been endeavouring to collect vital statistics concerning the deaf and dumb for thirty-two years, but, notwithstanding my favourable situation, I have often found it very difficult to obtain the truthful information which is of so great importance. The strange reluctance of some persons to give information of their personal and family history is of such strength, that neither a corkscrew could draw, nor an hydraulic press could squeeze it out of them. Others have no intelligent knowledge of the circumstances which induced the deafness we seek information about, and sometimes assign causes purely imaginary. These statistics, I fear, are not entirely exact, for I frequently

get new information about cases I had long known; but they are approximately so, and are probably as near exact, as far as they go, as can be obtained.

‘From the information thus far obtained I find that deafness occurred—

	Cases
At birth in	490
Under 1 year of age	167
At 1 and under 2 years of age	138
At 2 " 3 " 	156
At 3 " 4 " 	102
At 4 " 5 " 	64
At 5 " 6 " 	51
At 6 " 7 " 	29
At 7 " 8 " 	25
At 8 " 9 " 	16
At 9 " 10 " 	7
At 10 " 11 " 	11
At 11 " 12 " 	2
At 12 " 13 " 	4
At 13 " 14 " 	7
At 14 " 15 " 	7
At 15 " 16 " 	1
At 17 " 18 " 	1
At 20 " 21 " 	1

‘The causes of deafness among the pupils of this institution, so far as known, have been—

	Cases
Congenital, in	490
Cerebro-spinal meningitis	299
Inflammation of the brain	36
Brain fever	92
Scarlet fever	135
Erysipelas	4
Diphtheria	12
Measles	42
Small-pox	2
Chicken-pox	1
Fever	63
Nervous fever	6
Typhoid fever	45
Intermittent fever	11
Congestive fever	7
Catarrh	12
Colds	27
Sickness (nature not given)	72
Falls	35
Gathering in head	44
Whooping-cough	24
Pneumonia	22

	Cases
Spasms	21
Scrofula	10
Hydrocephalus	12
Congestion of the brain	11
Cutting teeth	5
Excessive use of quinine	15
Disease of the ear	8
Mumps	7
Gradual decadence of hearing	4
Paralysis	3
Fright	2
Shock of lightning	2
Sea-sickness	2
Cholera infantum	2
Burned with lye	2
Cholera	2
Concussion of brain	1
Influenza	1
Croup	1
Vaccination	1
Rickets	1
Disease of the spine	1
Worm fever	1
Burn	1
Scald-head	1
Drinking lye	1
Apoplexy	1
Scald	1
Cold plague	1
Cancer	1
Jaundice	1
Disease of kidneys	1
Bronchial affection	1
Sunstroke	1
Sprain in neck	1
Exposure to heat	1
A blow on the head	1
Washing in cold spring	1
Hæmorrhage from the mouth	1
Throat diseases	1

‘ The 1,886 pupils represent 1,075 families.

Of these	1 family contained	5 deaf-mutes.
”	12 families	” 4 ”
”	50 ”	” 3 ”
”	103 ”	” 2 ”
”	1,541 ”	” 1 deaf-mute.

‘ Among the 1,705 families, in 8 families the father and mother were deaf; in 1 family the father was deaf.

‘ Four hundred and fifty-two had deaf-mute relationships numbering 770, a detailed statement of which, as far as ascertained, is as follows:—

	Cases
Father and mother in	5
Father and sister in	2
Father, mother, 1 uncle and 1 aunt, in	1
Father, mother, and 1 brother, in	3
Father, mother, and sister, in	1
Father, mother, and 1 second cousin, in	1
Father, mother, 1 sister, 1 brother, 2 uncles, and 1 aunt, in	1
Father, mother, 2 brothers, 2 uncles, and 1 aunt, in	1
Grandmother, in	1
One brother, in	82
Two brothers, in	27
Three brothers, in	2
One brother and 1 sister, in	49
One brother and 2 sisters, in	13
Two brothers and 1 sister, in	13
One brother, 1 sister, and 3 cousins, in	2
One brother and 1 fourth cousin, in	2
Two brothers and 3 cousins, in	1
One brother and 2 great-uncles, in	1
One brother and 1 third cousin, in	1
One brother, 1 uncle, and 1 aunt, in	1
One brother and 3 cousins, in	1
One brother, 1 sister, and 1 uncle, in	1
One brother and 3 third cousins, in	2
One brother and 1 second cousin, in	3
One brother, 2 sisters, 1 uncle, and 2 aunts, in	1
Two brothers and 3 second cousins, in	3
One brother, 1 sister, and 1 cousin, in	3
Two brothers and 1 cousin, in	1
Two brothers, 1 sister, 1 uncle, and 2 aunts, in	1
One brother and 2 cousins, in	1
One brother, 1 sister, and 1 uncle, in	1
Two brothers and 1 uncle, in	1
One brother, 2 sisters, and 1 second cousin, in	1
One brother, 1 sister, and 2 cousins, in	2
Two brothers and 2 cousins, in	1
One brother, 1 great uncle, and 1 great aunt, in	1
One brother and 1 fourth cousin, in	1
One brother and 1 cousin, in	2
One brother and 1 great uncle, in	2
One sister, in	83
Two sisters, in	16
Three sisters, in	2
One sister and 2 great uncles, in	1
One sister and 1 second cousin, in	4
One sister and 1 third cousin, in	1
Two sisters and 1 second cousin, in	2
One sister, 1 great uncle, and 1 great aunt, in	1

	Cases
One sister and 1 fourth cousin, in	2
One cousin, in	46
Two cousins, in	1
Three cousins, in	2
Five cousins, in	1
One second cousin, in	19
One third cousin, in	7
Two third cousins, in	2
Three second cousins, in	1
Four second cousins, in	1
One fourth cousin, in	2
Two fourth cousins, in	1
Two second cousins and 2 fourth cousins, in	1
One cousin and 1 third cousin, in	1
One second cousin and 1 third cousin, in	1
Two cousins and 1 nephew, in	1
One uncle, in	7
One uncle and 2 aunts, in	1
Two uncles and 1 aunt, in	1
One uncle and 1 great uncle, in	1
Two great grand-uncles, in	1
One uncle and 1 niece, in	1
One great uncle, in	1
One aunt, in	2
One great aunt, in	1
Two great aunts, in	1
One aunt and 2 cousins, in	1
One nephew, in	1
Two nephews and 1 niece, in	1

‘It is a very interesting and striking fact that while the 450 deaf-mutes enumerated in the foregoing statement had 770 relationships to other deaf-mutes, making a total of 1,222, that only 12 of them had deaf-mute parents and only 2 of them 1 deaf-mute parent, the mother of these having been able to hear, and that in no case was the mother alone a deaf-mute.

‘Of the deaf-mutes who have been connected with the institution as pupils and have left it, 272 have married deaf-mutes, and 21 have married hearing persons. These marriages have been as fruitful in offspring as the average of marriages in society at large, some of them resulting in large families of children. It is interesting to know that among all these only 16 have deaf-mute children. In some of the families having a deaf child there are other children who hear. These facts clearly indicate that the probability of deaf offspring from deaf parentage is remote, while other facts, set forth herein, very

clearly indicate a deaf person probably has or will have a deaf relative other than a child.

‘The family descent of the 1,886 pupils have been—

	Cases
American	1,284
German	271
Irish	161
Swede	44
English	29
French	25
Hebrew	13
Scotch	13
Coloured	11
Polish	10
Portuguese	4
Canadian	4
Russian	4
Italian	3
Norwegian	3
Hungarian	2
Bohemian	2
French and Indian	2
Mexican	1

‘Very nearly 6 per cent. (110) of the pupils who have been admitted to this institution are reported as children of parents having consanguineous origin, as follows:—

	Cases
Children of first cousins	76
Children of second cousins	17
Children of third cousins	9
Children of fourth cousins	9
Grandchild of first cousins	1
Child of uncle and niece	1

‘These came from 88 different families, of which

- Two families had four deaf children.
- Five families had three deaf children.
- Ten families had two deaf children.
- Seventy-two families had one deaf child.

‘I have experienced considerable difficulty in ascertaining facts on this point, and I believe there are some cases of this kind upon which we are not correctly informed. If all the cases of the offspring of parents related by blood were reported, I have no doubt the percentage of such would be larger, certainly not less than 8, and probably quite 10 per cent.

‘PHILIP G. GILLET, *Superintendent.*’

11. GEORGIA INSTITUTION.

'I enclose answers to questions and also some tables containing statistics.

TABLE I.
Causes of Deafness as given by Parents.

	Cases
17 unknown	·077
112 congenital	·511
19 meningitis	·086
12 sickness	·054
8 brain fever	·036
5 scarlet fever	·022
2 typhoid fever	·009
1 worm fever	·004
1 malignant fever	·004
6 fever	·027
7 pneumonia	·032
7 rising in the head	·032
4 whooping cough	·018
2 measles	·009
1 mumps	·004
1 erysipelas	·004
1 convulsions	·004
1 catarrh	·004
1 milk scab	·004
1 scrofula	·004
2 strong medicine	·004
4 quinine	·018
1 paralysis of the drum	·004
1 concussion—kicked by a mule	·004
1 concussion—thrown from horse	·004
1 concussion—firing gun while head was in a kettle	·004
<hr/> 219	<hr/> ·995 +
Whole number of cases	219

TABLE II.
Giving Age at which Deafness occurred.

17 unknown	·077
112 congenital	·511
15 under one year	·068
19 over one and under two	·086
17 over two and under three	·077
12 over three and under four	·054
10 over four and under five	·045
7 over five and under six	·032
3 over six and under seven	·013
2 over seven and under eight	·009
3 over eleven and under twelve	·013
1 over fourteen and under fifteen	·004
1 over eighteen and under nineteen	·004
<hr/> 219	<hr/> ·993
Whole number of cases	219

TABLE III.

Giving Number of Deaf-mutes to each Family.

	Cases
142 families have one deaf-mute each	142
23 families have two deaf-mutes each	46
13 families have three deaf-mutes each	39
4 families have four deaf-mutes each	16
3 families have five deaf-mutes each	15
185	258

The 219 deaf-mutes are representatives of 185 families, which contain altogether 258 children (deaf).

Of the 219 deaf-mutes, 93 have deaf-mute brothers, sisters, or other relatives.

In 5 families the parents are deaf-mutes, producing 14 deaf-mute children, and in *each* case the mothers, and in 3 cases the fathers, congenitally so.

One of the 219 has 11 deaf-mute relatives—1 brother, 2 sisters, 3 cousins in 1 family, 1 each in 3 other families.

In 1 family the father, mother, and 5 children are all deaf-mutes.

TABLE IV.

Showing the Consanguinity of the Parents as given by the Parents themselves.

In 20 families the parents were first cousins, producing 33 deaf-mutes, or nearly $12\frac{1}{2}$ per cent. of the 258.

In 11 families the parents were second cousins, producing 18 deaf-mutes, or nearly 7 per cent. of the 258.

In 4 families the parents were third cousins, producing 7 deaf-mutes, or about 3 per cent. of the 258.

In 1 family the parents were fourth cousins, producing 5 deaf-mutes, or nearly 2 per cent. of the 258.

In 1 family the parents were half-cousins, producing 1 deaf-mute, or about $\frac{1}{3}$ of 1 per cent. of the 258.

In 3 families the parents were distantly related, producing 5 deaf-mutes, or nearly 2 per cent. of the 258.

From the above it is seen that in 40 of the 185 families the parents were more or less related—a number equal to nearly $21\frac{1}{2}$ per cent. of the whole.

From these 40 families emanated 69 deaf-mutes, or 267 per cent. of the 258.

TABLE V.

Giving Progeny of Former Pupils of the Georgia Institution who have Married each other, as well as those who have Married Hearing Persons, in all the Cases of which the Principal has Knowledge.

1. William Jones, congenital, to Margaret McLeod, congenital, and 1 of 2; 5 children, all deaf-mutes.
2. James Jones, congenital, and son of above, to hearing lady; 3 children, all hear perfectly.

3. Henry Taylor, congenital, 1 of 3, to Mary Jones, congenital, daughter of No. 1; 1 child deaf-mute, and 1 hears perfectly.
4. Lucius Prior, congenital, 1 of 5, to Mary Hoge, congenital, 1 of 3; 6 children, all hear perfectly.
5. Samuel Potts, congenital, 1 of 4, to Angeline Prior, congenital, 1 of 5; 4 children by this marriage, all hear perfectly.
6. Jackson Payne, congenital, 1 of 4, to Angeline Potts, widow; 2 children, all hear perfectly.
6. James Jornigan, 1, to 6½, Rebecca Whiteside, 1 deaf at 15 months; 6 children, all hear perfectly.
7. John Wright, 1, to 7½, Amanda Ray, congenital, and 1 of 4; 1 deaf mute, 1 hears perfectly; first marriage.
8. David Payne, congenital, 1 of 4, to 7½, Amanda Wright, widow; 2 children, all hear perfectly.
9. David Payne, married second time to 9½, Dollie Highfill, congenital, and 1 of 2; 1 deaf mute. Dollie has 1 cousin and 1 sister deaf.
10. Samuel Bruce, hard of hearing and brother to two deaf-mutes, to Margaret Jones 1; 5 children, all hear perfectly.
11. John Ray, congenital, brother to 7½, to hearing lady; 5 children, all hear perfectly.
12. George Ray, congenital, brother to 7½, to hearing lady; 4 children, all hear perfectly.
13. Joshua Davis, congenital, 1 of 3, to 13½, Nancy Morris, congenital, 1 of 3; 5 children deaf-mutes, 1 very hard of hearing, 1 hears perfectly. Davis's grandmother deaf-mute.
14. Henry Morris, congenital, brother to 13½, to 14½, Emma Edwards, congenital, and child of deaf-mute parents, both of whom were congenitally so; 2 children deaf-mutes and 1 very hard of hearing.
15. — Sweetman, one, to 15½, Kate Morris, sister to 13½; 5 children, all hear perfectly.
16. John Payne, congenital, brother to 8; Mattie Harris, 1; 3 children, all deaf-mutes.
17. John Burks, congenital, 1, to Susan Gaines, congenital, 1; 3 children, all hear perfectly.
18. Abner Davis, congenital, 1 of 3, brother to No. 13, to Mary Davis (not related), congenital, 1 of 3; 5 children, all hear perfectly.
19. W. B. Lathrop, 5 years, 1, to Miss Wright, hearing lady, but daughter of No. 7; 1 child, hears perfectly.
20. Styles Philips, congenital, 1 of 2, to Ida Wright, congenital, 1, daughter of No. 7; 1 deaf-mute, 1 hears perfectly.
21. Charles Davis, congenital, 1 of 3, brother to No. 13, to Barthella Darden, 3 years, 1; 1 child, hears perfectly.
22. Zachary T. Wood, congenital, 1, to hearing lady; 2 children, hear perfectly.
22. Joe White, congenital, 1, to Catherine Worrel, congenital, 1; 2 children, all hear perfectly.
23. William Bailey, congenital, 1 of 2, to Mallie Pendergrass, 3 years, 1; 1 child, hears perfectly.
24. James Shannon, 1, 12 years, to Martha Tootle, congenital, 1 of 2; 3 children, all hear.

Sixteen marriages of congenital deaf-mutes produced 59 children, 19 or 32½ per cent, of which were deaf-mutes.

‘W. O. CONNOR, *Principal.*’

12. SOUTH CAROLINA INSTITUTION.

'I think the intermarriage of the congenital deaf tends strongly towards an increase of the deaf as a class. See no special reason why a congenital deaf-mute should not marry another deaf person, so from disease or other cause. I send accompanying statement of a family living near here:—

'Robert P. Rogers, a deaf-mute, having one brother and two sisters deaf, of Freeport, Maine, married Sarah Holmes, a deaf lady of S.C., having one deaf brother. This marriage resulted in a family of five children, three girls and two boys, all deaf.

'1. The eldest of these, Jane, married a deaf man; they have five children, four deaf and one *probably* semi-deaf.

'2. The second, William H., married a deaf lady; they have two children, both deaf.

'3. The third, David S., married a deaf lady; no children.

'4. The fourth, Laura A., married a deaf man (not congenital); they have two children, both can hear.

'5. The fifth, Clara A., married a deaf man (am not certain if congenital or not); one child, can hear.

'N.B. All of above-mentioned are congenital deaf-mutes, except those designated otherwise.

'NEWTON F. WALKER, *Superintendent.*'

13. MISSOURI INSTITUTION.

James N. Tate, Principal, expresses no opinion upon this question.

14. LOUISIANA INSTITUTION.

John Jastremski, Superintendent. No reply received to date, June 2, 1888.

15. WISCONSIN SCHOOL.

'In considering the welfare and social life of the deaf, I would advise, first, celibacy; but if nothing short of the married

state will satisfy, then I would advise the deaf to marry the deaf, believing peace, happiness, and prosperity will thereby be promoted, and the probabilities of deaf offspring but slightly increased.

‘J. W. SWILER, *Superintendent.*’

16. MICHIGAN SCHOOL.

‘All that can be said is very speculative. Very few deaf-mutes in my own school have deaf parents. The proportion is so small that it does not go far, in my opinion, to establish the theory that deaf-mute marriages tended to produce a deaf-mute offspring.’

‘M. T. GASS, *Superintendent.*’

17. MISSISSIPPI INSTITUTION.

‘I know a great many married deaf-mutes. I do not know of a deaf-mute couple who have deaf-mute children. I know a deaf man who married a hearing and speaking lady; they have a deaf-mute daughter. I have not been convinced that deafness is hereditary.’

‘J. R. DOBYNS, *Superintendent.*’

18. IOWA INSTITUTION.

H. W. Rothert, Superintendent. No reply to circular letter received to date, June 2, 1888.

19. TEXAS ASYLUM.

‘The parents of but one of our children are both deaf. There is another, however, whose father is a mute, the mother being hearing and speaking. Out of a total of 158, 40 have deaf relatives. There are 36 instances where such relations are of the same generation, being sisters and brothers and cousins; one

case of third cousin; six instances where relatives are in the next generation above; three where they are in the second generation above, and six instances where generation is not stated. The number 40 given above represents 28 families, as in ten cases there are two to a family and in one case three to a family, and four of these children, representing two families, are not congenitally deaf; four others, representing four families, are not congenitally deaf; making six families in all out of the 28 represented whose children are not congenitally deaf.

‘W. H. KENDALL, *Superintendent.*’

20. COLUMBIA INSTITUTION.

(A.) Kendall School. James Denison, Principal, expresses no opinion upon this question.

(B.) National College. E. M. Gallaudet, President, expresses no opinion upon this question.

21. ALABAMA INSTITUTION.

‘We have had eighteen couples married, former pupils of this institution. So far as we can learn, not a single case of deafness amongst their children. One child suspected of being deaf died before the matter was definitely settled.’

‘JOS. H. JOHNSON, *Principal.*’

22. CALIFORNIA INSTITUTION.

‘Any defect in parents is more likely to appear in offspring than if such defect did not exist in the parents. This abnormal tendency is especially seen following the marriage of cousins or second cousins. Among the pupils graduates of this institution there have been many marriages and many children, but there has never been a child inheriting the affliction of its parents.’

‘WARRING WILKINSON, *Principal.*’

23. KANSAS INSTITUTION.

'Not a sufficient number of cases of offspring of deaf-mutes is under my knowledge for me to speak with much force on the question. And yet I am acquainted with several such families, but do not now recall but two cases where offspring are also deaf.

'S. T. WALKER, *Principal.*'

24. LE COUTEULX ST. MARY'S INSTITUTION,
BUFFALO, NEW YORK.

'Of the 442 pupils who have been under instruction in our school there is only one instance of a deaf-mute born of deaf-mute parents.

'Sister MARY ANN BURKE, *Principal.*'

25. MINNESOTA SCHOOL.

'In regard to the intermarriage of the deaf, I have seen very few instances of children of deaf parents inheriting their infirmity during the 36 years I have laboured among these children. For 22 years I have been superintendent of the Minnesota School, have had about 500 deaf children under my care; during that time over 30 of them were married and have children, but none of these are deaf. Not a child received here has had deaf and dumb parents. In one case a mother is hard of hearing but the father is all right. I regard the intermarriage of own cousins as much more dangerous to the well being of offspring than the intermarriage of deaf mutes. Still, I would be very guarded not to allow two who were congenitally deaf to marry each other. Moreover, after considerable observation and careful consideration, I feel confident that happiness follows the intermarriage of the deaf far more frequently than it does when one of the couple is deaf and the other hears and speaks. I am confident this is the rule.

'J. L. NOYES, *Superintendent.*'

26. INSTITUTION FOR THE IMPROVED INSTRUCTION OF DEAF-MUTES, LEXINGTON AVENUE, NEW YORK.

D. Greenberger, Principal, expresses no opinion upon this question.

27. CLARKE INSTITUTION.

Miss Caroline A. Yale, Principal, expresses no opinion upon this question.

In answer to a special request for information regarding the marriages of former pupils, Miss Yale submits the following report:—

‘Seventeen pupils have married. Twelve have married deaf-mutes educated in other schools, 5 have married hearing persons. We know of no deaf child born to any former pupil of this school.

‘Below are given, as requested, all the information we have in regard to those marrying deaf-mutes.

Allen, James D. (dead), Montague, Mass., one child—not deaf.
 Annan, Josephine A., East Boston, Mass., Mrs. Beltis.
 Bosworth, Mary, Eastford, Conn.
 Brown, Mary Lizzie, Kensington, N.H.
 Forbes, Alice V., Sherborn, Mass., Mrs. Henry A. Porter.
 Kelly, Mary E., Lynn, Mass., Mrs. C. E. Burrill, one child—
 not deaf.
 Nevers, Harry W., Bridgport, Conn.
 Nicholls, Marietta, Arlington, Mass.
 Porter, Isabel E., Santa Fé, New Mexico, Mrs. Lars M. Larson,
 one child—not deaf.
 Robinson, Hattie F., Boston, Mass.
 Towle, Lewella, East Boston, Mass., Mrs. Ivory W. Allen.
 Whittier, Mary Emma, Brooklyn, N.Y., Mrs. Leo Greis.’

28. ARKANSAS INSTITUTION.

F. D. Clarke, Principal, expresses no opinion upon this question.

29. MARYLAND SCHOOL.

'While the vast majority of deaf-mutes are not the result of deaf-mute marriages, and do not show hereditary influence, there is in my mind no question that the marriage of congenital deaf-mutes is *liable* to be followed by a deaf-mute issue—that the chances of deaf-mute offspring in such cases is many times greater than in ordinary marriages.

'C. W. ELY, *Principal*.

'May 10, 1888.'

30. NEBRASKA INSTITUTE.

J. A. Gillespie, Superintendent, expresses no opinion upon this question.

31. HORACE MANN SCHOOL.

Miss Sarah Fuller, Principal, expresses no opinion upon this question. In answer to a special request for information regarding the marriages of former pupils, Miss Fuller submits the following list of pupils married; and a personal letter from which the following is quoted:—

' . . . Three marriages are the probable result of association in classes in the Horace Mann School. The others, I think, may be traced directly to "Deaf-Mute Associations" and "Deaf-Mute Conventions," which seem to exert every possible influence to bring together young deaf people. I have learned to-day that there are four societies in Boston under the direction of deaf persons. . . . The so-called religious societies continually attract to their meetings young persons whose parents do not take the trouble to interest and help them at home. As all of the exercises are in signs, and a free use of signs is not only allowed but encouraged, one cannot wonder that there is some confusion in the minds of children, or rather young persons, when they reflect upon the different methods of instruction. The criticisms which sometimes come to me are so exactly those that I have heard from teachers of signs, that I think our children must have

MARRIAGES OF THE PUPILS OF THE HORACE MANN SCHOOL.

Name	Time of Deafness	Where educated	Business	When married	Number of Children	Hearing or Deaf
{ Emma Collins . Michael Lynch .	Infancy hears slightly. Infancy	Horace Mann School Horace Mann School	Marble worker	1883	Three	Hearing
{ Hannah Ryan . Joseph E. Finnegan .	Infancy Congenital	Horace Mann School Horace Mann School	Shoemaker .	1886	One, died at birth	
{ Jane A. Bragg . Frank L. Cole .	Seven years of age 2½ years of age .	Horace Mann School Horace Mann and Providence Schools	Do not know .	Oct. 1886	None	
{ Mary E. Moriarty .	Five years of age .	Horace Mann School and N.Y. Improved Institute	—	—	—	
{ George Neville . Mary J. Carton .	A hearing man . Ten years of age .	— Horace Mann School	Actor	Aug. 1886	None	
{ James H. Farley . Ida L. Marshall .	13 years of age . Infancy	American Asylum . Horace Mann School	—	Jan. 1881	Three	Hearing
{ John N. Davis .	Was not born deaf (speaks) At ten years of age	Public Schools in Winchendon Public School and Horace Mann School	Operative in pail factory	Dec. 1887	None	
{ Gelia H. Tewksbury	At ten years of age	Public School and Horace Mann School	—	—	—	
{ Charles C. Fisher .	At 8 or 10 years of age	American Asylum .	Engraver and designer	June 1887	None	
{ Susan Simons (wid.) . Frederick Roberts .	Congenital At six years of age	American Asylum . Horace Mann School, and later Hartford	Works in market	Think in 1885	None	
{ Mary Carroll .	Infancy	American Asylum, and Horace Mann School	—	—	—	
{ Amos A. Ladd . Lizzie M. Sargent .	Congenital Unknown	American Asylum . American Asylum .	Clockmaker . Works in a rubber factory	Sept. 1884 Nov. 1881	None None	
{ Isaac A. Blanchard	Infancy	New York Institution, and few months at Horace	—	—	—	

{ Henry A. Porter .	Unknown .	Horace Mann, later at Clarke Institution and American Asylum	Mill operative .	August, 1884	One	Hearing
{ Luella Towle .	Infancy .	Montreal and New York	—	—	—	—
{ Ivory W. Allen .	Six years of age .	Northampton, and a few months at the Horace Mann Sch. Educated in public schools	Steward .	March, 1885	One	Hearing
{ Harriet F. Robinson .	Congenital .	Northampton, Am. Asylum, and a short time at the Horace Mann School	—	—	—	—
{ Elbridge A. Wellington .	Infancy .	American Asylum .	Works in car shop	May, 1883	None	—
{ Mary O'Neil .	Congenital .	American Asylum .	—	—	—	—
{ William F. Young .	Infancy .	American Asylum, and a few months at the Horace Mann School	Do not know .	Think in 1880	Four (all died in infancy)	—
{ Amelia McCallum .	Unknown .	Think American Asylum	—	—	—	—
{ Alvah W. Orrutt .	At four years of age	Horace Mann School, later American Asylum	Do not know .	Dec. 1886	None	—
{ Nora C. Noyes .	Congenital .	American Asylum .	—	—	—	—
{ Samuel S. Cross .	Congenital .	American Asylum, and one year at the Horace Mann School	Shoemaker .	May, 1887	None	—
{ Mollie Mann .	Unknown .	Think Columbus Inst., Ohio	—	—	—	—
{ Henry White .	At five years of age	Hartford Asylum, Horace Mann Sch., National College	Teacher .	June, 1885	One	Hearing

most emphatic teaching from the sign-makers in regard to the *value of signs*. With so much adverse influence about our young people, I do not wonder that they marry among deaf persons and spend their social hours in criticisms of each other. I remember that you once thought I was mistaken in wishing that the young deaf people were not encouraged to meet together. My longer experience and knowledge of young deaf persons confirms my belief that even if some of the joys of social life are lost through separation from other deaf persons, they gain greatly in moral strength by meeting only persons who hear. It seems to me to be a great wrong to deaf persons to encourage them to meet together. Possibly you remember the remark that was made about our restricting our pupils in the use of signs: "It is cruel"—I think it *cruel* to encourage their use. Did I not know that there are many of our pupils who use and enjoy using speech, and who mingle freely with friends and with strangers, and who *do not* meet with societies of deaf persons, I should at times be disheartened.

'The names reported in the preceding list have probably been given by the Principal of the American Asylum, or by the New York reports. Nevertheless I give them, thinking they might aid in making fuller statements than would be possible without them. Ten of the persons were never pupils of the Horace Mann School, and none were there for a long period.'

32. ST. JOSEPH'S INSTITUTE.

Madame Ernestine Nardin, President, expresses no opinion upon this question.

33. WEST VIRGINIA SCHOOL.

H. G. Gilkeson, Principal. No reply to circular letter received to date, June 2, 1888.

34. OREGON SCHOOL.

'I know personally 9 deaf-mute families. In 6 of these families there are children, in all 14, none deaf. In eighteen years I have had 90 pupils in all. One of these, only partially deaf, was of deaf-mute parentage.

'P. S. KNIGHT, *Superintendent.*'

'Salem, Oregon: May 1888.'

35. MARYLAND INSTITUTION FOR COLOURED DEAF-MUTES.

F. D. Morrison, Superintendent. No reply to circular letter received up to date, June 2, 1888.

36. COLORADO INSTITUTE.

John E. Ray, Superintendent, expresses no opinion upon this question.

37. CHICAGO DAY SCHOOL.

In reply to this question, Mr. Emery forwarded a number of pamphlets which he has published bearing upon the subject, and directs special attention to an article entitled 'Inter-marrying of Mutes,' from which the following is quoted:—
'Permit us a few words about mutes marrying mutes. Is it *selfishness* or *unselfishness* in parents and friends who *fear* the ways of Providence in deafness, and do not want their deaf son or deaf daughter to marry and enjoy the highest state of *use* and happiness on earth to man? Even suppose this intermarrying of mutes does *actually* tend to, and *will* in time, produce a new "variety of the human race," is it not the will of Providence to that end for a *purpose*? Where is our authority to thwart this purpose? Would it not savour more of wisdom to aid Providence by a more normal development of the physical and mental natures of the deaf than by prohibition or dis-

couraging of intermarrying among them? Our duty is to *develop*, and not to suppress, whatever Providence gives or sends us.

‘Let us admit for argument’s sake, or even if the figures *do prove*, that the intermarrying of the deaf with the deaf *tends* to produce a new variety of the human family, just how long will it take to cause the whole world—all people—to become deaf? A billion, if not a trillion of years! unless you can show an *increasing* ratio of deafness greater than the increase of hearing people, for the increase of deaf and dumb by intermarrying is a very small mote in fact, and far from being a beam. Will it be wise and philanthropic to interfere with Providence even in *theory*? Or are you riding a hobby under the mantle of *human* wisdom? Better mount the hobby of *preventiveness* of deafness, as “an ounce of prevention is worth a pound of cure.”

‘Allow us to repeat, by asking that in case a new variety of the human family from the intermarrying of deaf-mutes is to be regretted as a social disaster, would not Providence have *foreseen* it and have prescribed a prevention of it in deafness by causing deafness or some other effect to neutralise or paralyse the love of sex—amativeness? Or may He not do this yet? Or may He not yet stop the cause of deafness ere we reach the dreaded new variety? It seems to us that it will be well to keep “hands off” of what is so remote and problematic.

‘PHILIP A. EMERY, *Principal.*’

For the full text of Mr. Emery’s communication see volume marked ‘Emery Pamphlets.’

38. CENTRAL NEW YORK INSTITUTION.

E. B. Nelson, Principal, expresses no opinion upon this subject.

39. CINCINNATI PUBLIC SCHOOL.

A. F. Wood, Principal. No reply to circular letter received up to date, June 2, 1888.

40. WEST PENNSYLVANIA INSTITUTION.

'I regret to say that I have no statistics at present bearing upon this question. So far as the range of my observation goes, however, in the majority of cases of intermarriage between the deaf the children are similarly affected. I find among our pupils a very considerable number have one or both parents deaf, or have deaf grandparents or deaf uncles, aunts, or other relatives.

'JOHN G. BROWN, *Principal.*'

41. WESTERN NEW YORK INSTITUTION.

Z. F. Westervelt, Principal. No reply to circular letter received up to date, June 2, 1888.

42. PORTLAND SCHOOL, MAINE.

Ellen L. Barton, Principal, expresses no opinion upon this question.

43. RHODE ISLAND STATE SCHOOL.

'In regard to the intermarriage of the deaf, I think the least that can be said is, that they run a great risk in regard to the offspring being deaf, or at least predisposed to deafness. I have observed that in some families there is an inherited predisposition to deafness. Many of those, I think, who are not actually deaf, have this inherited tendency, and it takes but a slight cause to render them partially if not wholly deaf. Frank Lamont Cole, now of Pawtucket, R.I., attended this school from February 1877 (at its founding) to June 1880. Was 13 when admitted. Became deaf from scarlet fever at 2½ years. After leaving school married a deaf-mute, Jennie Bragg, who was *not a congenital*. They had twins, who died soon after their birth. Mary Emily Bauer, now living at Green, R.I., married Frank

Brown, congenital deaf-mute. They have 1 child, now nearly a year old, *not deaf*. Emily Bauer attended the R.I. School from April 1877 to May 1880.

‘ANNA M. BLACK, *Principal*.’

44. ST. LOUIS DAY SCHOOL.

D. A. Simpson, Principal. No reply to circular letter received up to date, June 2, 1888.

45. NEW ENGLAND INDUSTRIAL SCHOOL.

‘One of our graduates married a deaf-mute—no children.

‘NELLIE H. SWETT, *Principal*.’

46. DAKOTA SCHOOL.

James Simpson, Superintendent. No reply to circular letter received up to date, June 2, 1888.

47. MILWAUKIE DAY SCHOOL.

‘So far as my observation has gone, deaf-mutism is not *direct* hereditary, but in very few cases. I find that a deaf-mute couple will very seldom have deaf-mute children; but the offspring of these hearing and speaking children is sure to be tainted. Deaf-mutism is undoubtedly hereditary.

‘PAUL BINNER, *Principal*.’

48. PENNSYLVANIA ORAL SCHOOL, SCRANTON.

‘When educated by *pure* oral method, I think large numbers will marry hearing people.’

‘EMMA GARRETT, *Principal*.’

49. NEW JERSEY SCHOOL.

The Superintendent submits the following extract from his 1885 Report, and adds: 'I feel obliged to recant the opinion cautiously hazarded in my Report of 1885 as to the probable comparative results of intermarriages among the deaf, and of marriage between deaf and hearing persons in respect to the proportion of the deaf to the hearing children of the two classes of unions respectively.'

(Extract from 1885 Report.)

'During the past year considerable interest has been awakened not only among those who are immediately interested in deaf-mute instruction, but in scientific circles and among the community at large by the discussion, in which Professor A. Graham Bell has taken a leading part, of the question how far the intermarriage of deaf-mutes tends to form an increasing class of deaf persons, differentiated more and more from those who hear.

'Very little can be positively said as to the ante-natal causes of deafness in the present state of knowledge on the subject, and while deafness in the parents undoubtedly tends, with a certain degree of force, to reproduce itself in the children, it cannot yet be pronounced, with any degree of certainty, that there are not other and more obscure causes which have a larger share in producing congenital deafness.

'As a slight contribution towards the solution of this question I give below the information on this subject furnished by the records of this school.

'Of the 134 pupils who have received instruction in this school since its opening, there have been twenty-nine who have each one or more deaf relatives.

'These twenty-nine pupils represent twenty-four families, in one of which there have been five deaf-mute children, while two families have had four each, three families have had three each, and seven families have had two each of children thus afflicted. In three families, with a total of five deaf-mute children, both parents were deaf-mutes; and in four families, with a total of

five deaf-mute children, one parent was deaf in a greater or less degree.

‘ In the eight remaining cases representing the same number of families, the deaf relatives were outside of the immediate family circle, being uncles, cousins, or those still more distantly related.

‘ As regards the relationship of parents before marriage, in the case of two out of our 134 pupils the parents were cousins, in two cases they were second cousins, and in one case they were third cousins.

‘ In none of these five families were there two or more deaf-mute children, and the proportion of related parents (less than four per cent. of the whole) is perhaps not greater in the 129 families from which these statistics are gathered than in the community as a whole.

‘ In the six families reported above as containing each three or more deaf-mute children, I am satisfied (although the point does not admit of exact statement) that the parents were in no case below the average in physique, in morals, or in their sanitary surroundings, and in no case was either of the parents deaf, while the 22 deaf-mute children of those families are, on the whole, rather above than below the average in health and vigour.

‘ While the number of cases covered by this Report is not large enough to furnish a safe basis for drawing any general conclusions, yet the indications which they afford will have a certain value, especially when they harmonise with the results of other investigations independently conducted.

‘ It would appear, then, that while the great majority of cases occur singly in unrelated families, there is yet a considerable number of marriages which give rise each to several deaf-mute children. Nor, if we may generalise from our figures, are the parents of a numerous deaf-mute progeny generally deaf themselves or from an ancestry characterised by deafness. It would seem, too, that, contrary to a rather wide-spread notion, neither consanguinity nor low vitality of the parents is a frequent

cause of deafness in the children. I believe that these conclusions are in general harmony with the results of other investigations, except that deafness is probably rather more common among the classes surrounded by unfavourable conditions as to health than among those more fortunate in this respect.

‘It is a curious fact that more marriages between deaf and hearing persons have furnished deaf children to this school than marriages in which both parties were deaf-mutes.

‘While I would not attach too much importance to this circumstance, it is not without significance as suggesting that, so far as deafness is hereditary, we might expect the birth of fewer deaf-mute children to result from the intermarriage of the deaf among themselves than from the union of every marriageable deaf person with a hearing partner.

‘In the latter case the number of marriages involving the danger of transmitting deafness to the children would be twice as many as in the former case, while our figures suggest the probability of inheriting the infirmity may not be doubled when both parents, instead of one, are deaf.

‘Again, the fact that in so many cases *partial* deafness in a parent is followed by deaf-mutism in a child may be of more importance than at first appears.

‘Partial deafness, as is well known, is in many cases, and especially where its intensity varies very much from time to time, caused by catarrh; and it is established by medical examination that a considerable share of congenital deafness is also of a catarrhal nature.

‘There is, I believe, high medical authority for holding that the tendency to catarrhal disease is apt to be inherited, and the inference would be that this disease, affecting as it does the mucous membrane, may, when inherited, attack any mucous surface, whether or not it be the same which was affected in the parent.

‘In this view, not only would the children of a parent whose hearing is dulled by catarrh be more likely than others to be deaf, but there would be an intelligible reason why a couple who

have perfect hearing and excellent general health may have several deaf-mute children, as we have found to be often the case.

‘The explanation would be that catarrh, which in the parents may have shown itself in some other mucous surface, has in the children passed to the auditory apparatus.

‘This would be similar to what observers have reported in regard to scrofula, a disease which is undoubtedly inheritable, and of which the indications may be noticed in a considerable proportion of deaf-mutes.

‘On the other hand, where deafness is caused by an acute disease, as brain fever, scarlet fever, or cerebro-spinal meningitis, it does not seem probable that there would be a tendency to transmit deafness to the children.

‘The whole subject is one in which the general public, as well as specialists, have an interest; and it deserves, and is likely to receive, careful investigation.

‘While Dr. Bell deserves great credit for his patient gathering of statistics of deafness, as well as for his ingenious analysis and interpretation of his own figures, and while later observers have contributed additional information, the subject awaits treatment at the hands of some member of the medical faculty who unites high professional skill to familiarity with the mass of recorded facts.

‘WESTON JENKINS, *Superintendent.*’

50. UTAH SCHOOL, SALT LAKE CITY.

H. C. White, Principal. No reply to circular letter received up to date, June 2, 1888. For Mr. White's views upon this subject see article quoted by the Principal of the Cathedral School, Cincinnati, p. 83.

51. NORTHERN NEW YORK INSTITUTION.

Henry C. Rider, Superintendent. No reply to circular letter received up to date, June 2, 1888.

52. FLORIDA INSTITUTE.

Park Terrell, Principal. A reply to circular letter was sent, but through some unexplained delay in the mails it had not been received up to date, June 2, 1888. In a private note Mr. Terrell says: 'I have known of several cases of inherited deafness. Two little boys at this school, the children of W. F. Pape, of Branson, Levy County, Florida. The father was born deaf, and the mother a semi-mute. Perhaps Dr. E. M. Gallaudet can give you further account of Mr. Pape, as he was at the college one or two years.'

53. WASHINGTON TERRITORY SCHOOL.

James Watson, Director, expresses no opinion upon this question.

54. NEW ORLEANS PUBLIC SCHOOL.

'My opinion is that to make any effort to secure the passage of a law to prohibit the intermarriage of the deaf would amount to a most tyrannical thing, but as the best way to put a stop to the increase of the deaf I would earnestly recommend the passage of a law to prohibit the intermarriages of blood cousins.

'R. B. LAWRENCE, *Principal.*'

55. EVANSVILLE DEAF-MUTE SCHOOL, INDIANA.

'A deaf-mute in Iowa married a woman whose hearing was perfect, and had two children by her—one a deaf-mute son who

died childless, the other a hearing daughter who married a hearing man, and gave birth to two deaf-mute daughters and a hearing son. This son married a hearing woman, and had by her a deaf-mute son. One of the daughters married a deaf-mute, and bore a hearing son. I have no confidence in the inheritance of deafness by offspring, as I doubt if there has been a deaf child born among about 1,000 schoolmates of mine who went to school with me at the Danville, Ky., Indianapolis, Ind., and Washington, D.C., Institutions.

‘CHARLES KERNEY, *Principal.*’

56. LA CROSSE DAY SCHOOL, WISCONSIN.

‘I have no data whatever. So far as I can judge, this matter is simply a “bugbear.” I do not think there is even a possibility of a “race of deaf-mutes” resulting from intermarriage of deaf-mutes.

‘ALBERT HARDY, *Superintendent of Schools.*’

57. NEW MEXICO SCHOOL.

‘All the pupils here except one, who has a deaf cousin (probably a young man in Kansas), have no deaf relatives. I was made deaf by some unknown sickness at the age of nearly two years, and graduated from the Wisconsin School. Mrs. Larsan, a graduate from the Clarke Institute, became deaf at the age of thirteen years. We now have one child nearly two years old neither deaf nor dumb. He can hear and talk. There are three deaf families having deaf children in Wisconsin, and two in Chicago, Ill. This is all I know of.

‘LARS M. LARSAN, *Principal.*’

PRIVATE AND DENOMINATIONAL SCHOOLS.

1. WHIPPLE'S HOME SCHOOL, CONN.

'I think it would be much better for the deaf never to marry, as I have known of no instance where there were not more deaf people brought into the world as the result, and I consider them an unfortunate class.

'MARGARET HAMMOND, *Principal.*'

2. GERMAN EVANGELICAL LUTHERAN INSTITUTE,
NORRIS, MICHIGAN.

'We know very little about it.

'D. H. UHLIG, *Principal.*'

3. ST. JOHN'S CATHOLIC INSTITUTE, ST. FRANCIS,
WISCONSIN.

Rev. Chas. Fessler, *Principal.* Expressed no opinion upon this question.

4. FREDERICK KNAPP INSTITUTE, BALTIMORE.

Frederick Knapp, *Principal.* No reply to circular letter received up to date, June 2, 1888.

5. VOICE AND HEARING SCHOOL, ENGLEWOOD,
ILLINOIS.

Mary McCowen expresses no opinion upon this question.

6. MARY GARRETT'S PRIVATE SCHOOL, PHILA-
DELPHIA.

'Cases of intermarriages of the deaf have not come under my notice, and I have not had time to investigate the subject,

although it is one of great interest. I have known of cases where deaf and idiotic offspring were the result of the marriage of cousins. In trying to obtain reliable statistics about my pupils, I find that when parents are related or have deaf relatives, they are loth to admit it, and frequently do not state the facts as they are. The parents of a bright little fellow of four who is rapidly learning articulation and language told me he had no deaf relatives, and I afterwards discovered he has a deaf uncle in a feeble-minded school. I think, therefore, that it requires a great deal of careful investigation to get at the real facts.

‘MARY S. GARRETT, *Principal.*’

7. MARIA CONSILIA INSTITUTE.

Sister Adèle, Principal, expresses no opinion upon this question.

8. CINCINNATI ORAL SCHOOL.

Katharine Westendorf, Principal. No reply to circular letter received to date, June 2, 1888.

9. CHICAGO CATHOLIC SCHOOL.

No reply to circular letter received to date, June 2, 1888.

10. MISS KEELER'S ARTICULATION CLASS, NEW YORK.

Sarah Warren Keeler, Principal, expresses no opinion upon this question.

11. CATHEDRAL SCHOOL (CATHOLIC), CINCINNATI.

‘The accompanying clipping will show how we stand as to the question of intermarriage of the deaf.

‘E. P. CLEARY, *Principal.*’

(From the Salt Lake City Daily Tribune.)

‘EDITOR *Tribune*,—In your last Sunday issue there was a remark quoted from the *Chicago Herald*, to the effect that a deaf race of men seems to be the inevitable result of schools for deaf-mutes. “The close association with one another leads to intermarriage, with offspring inheriting the common infirmity:” this is what the *Herald* says is the result.

‘This is a curious study in human heredity, one well worth the best efforts of the scientists, one of whom, Prof. Bell, of telephone fame, has made exhaustive researches upon the subject. As to whether it is true that deafness is inevitably transmitted from generation to generation by the intermarriage of deaf-mutes, the following facts will show:—

‘1. The world is 6,000 years old, and during all these years deaf-mutes have been born; they have intermarried and died, leaving children after children, yet nowhere on the face of the earth is a hereditary race of deaf-mutes found.

‘2. The proportion of adventitious or accidental deafness caused by sickness is greater than that of congenital “born-so” deafness, as the records of all institutions for the deaf show. The annual report of the Ohio Institution for 1887 gives a list of 2,216 deaf-mutes as having been taught within its walls during the 61 years of its existence, and the number is divided as follows:—

Adventitious deafness	. . . . .	1,314
Congenital	”	663
Unknown	”	239
Total	. . . . .	<hr/>2,216

‘3. Deaf-mutes, in the majority of cases, have borne children that have lived to maturity, married others and died in perfect possession of all their senses without transmitting the infirmity of the first generation. This is a well-authenticated fact among the deaf-mutes of Boston and New York City, “where they most do congregate.”

‘4. While there happens in several cases to be a deaf-mute

offspring in deaf-mute families, the same thing is true in cases where a deaf-mute had married a hearing person. How do you account for this reversion of nature—viz., deaf-mutes bearing hearing children, and mixed couples bearing deaf-mute children? This shows that there is evidently no law of heredity in deafness. It may be acquired independently of nature.

‘5. While there is the least danger of transmission between deaf-mutes who have become accidentally deaf, it is greater in cases of congenital deafness—that is, when both parents were born deaf—but by a curious law of affinity, marriages between congenitals is rare among the deaf-mutes; therefore, the infirmity is likely to be wiped out in the second generation.

‘6. The sage remark of the *Chicago Herald*, “the close association with one another leads to offspring inheriting the common infirmity,” has been refuted by an experiment that was made thirty years ago by a colony of deaf-mutes in Kansas. Like birds of a feather, deaf-mutes gathered there from the hills of New England, from the plains of the Middle States, and from the Sunny South, to form a community, or, as the *Chicago Herald* put it, “a race of deaf men.” A town government was set up with a deaf mayor and deaf selectmen, and the experiment seemed to progress favourably. But the projectors had forgotten their hearing children, who multiplied in number and usurped the government. Doubtless the leading men longed for a race of deaf offspring, but it was not given to them to be so blessed. Where is that deaf-mute community now? Go ask the four winds of heaven. The new order of things brought on dissensions among the silent community, and it broke up, scattering them all over the Union, and the much-dreaded deaf race was blotted from the face of the earth like the extinct race of mastodons of “ye ancient times.” There is no more danger of a hereditary race of deaf-mutes spreading than there is of the revival of the gigantic animal just mentioned. The *Chicago Herald* man may rest his soul in peace. He will never live to see a deaf race of men.

‘7. Here in Utah there are over two hundred deaf-mutes, and

as yet no case of deaf-mute parents having deaf-mute children has been reported; while, on the other hand, there are several married deaf-mutes who have children in perfect possession of all their senses. Neither my wife nor myself were born deaf, neither of us has any deaf-mute relatives living or dead, and our child is blessed with perfect auditory and vocal organs, and the danger of deafness is no greater in her case than in that of any other children. If she ever becomes deaf, it will not be through heredity, but from scarlet fever or cerebro-spinal meningitis, those dreaded diseases from whose fatal effects children escape only by giving up one of their most important senses as a sort of propitiatory sacrifice to Death.

'8. Other statistics serve to show that intermarriage of blood relations is the most frequent cause of deafness. Degrees of consanguinity as between cousins are productive of more "ills that the flesh is heir to" than any other known cause of heredity. The deaf-mutes of Oregon are said to owe their infirmity more to blood relationship than to accidental sickness, on account of the intermarriage of the first families there. As every breeder of horses knows, the highest and best qualities of racehorses are frequently obtained by what is called inbreeding, so the worst defects may also be transmitted from the same cause.

'H. C. WHITE,

'*Principal of the Utah School for the Deaf.*'

12. SARAH FULLER HOME.

Sarah Fuller, Supervising Principal. See report of Horace Mann School.

SCHOOLS IN THE DOMINION OF CANADA.

1. CATHOLIC INSTITUTION (MALE), MONTREAL.

J. B. Manseau, Principal. No reply to circular letter received to date, June 2, 1888.

2. CATHOLIC INSTITUTION (FEMALE), MONTREAL.

Sister Mary of Mercy, Superioress. No reply to circular letter received to date, June 2, 1888.

3. HALIFAX INSTITUTION.

‘Such marriages should not be encouraged, but cannot be prevented or prohibited. Out of 30 marriages among my own former pupils, 20 have been to deaf-mutes and 10 to hearing persons. So far there are probably between 30 and 40 children in these families, and only in one case do the offspring of these unions share the infirmity of the parents; but that case is sadly noteworthy, all the children, five in number, being deaf-mutes (one of the five is dead and the mother also). In this instance, however, the children were, so to speak, *doubly stamped*, there being several deaf and dumb in the families on both sides, as well as deafness in one of them three generations back.

‘Out of 72 families connected with the Halifax Institution, where the pupils were all *congenital* mutes, 39 families had an average of about 3 congenital deaf-mutes to each; 73 families had an average of about 2 congenital deaf mutes to each.

‘Out of 147 families, there were 68 cases where the pupils had brothers and sisters or other relatives deaf and dumb or otherwise defective.

‘Out of 120 families containing 189 deaf mutes, of whom 131 were congenital, 45 were consanguineous marriages, *five-ninths* of the parents being *first cousins*. Further figures may be found in my Report for 1877.

‘J. SCOTT HUTTON, *Principal*.’

4. ONTARIO INSTITUTION.

In a note, dated May 10, 1885, the Superintendent says:—
‘In reply to yours of April 30, I have filled up some of the blanks, and for the information asked for in some of the others

referred you to some printed reports, copies of which I send you. In addition thereto I may say that, in Sept. 1885, we admitted a small boy named Gregg, whose mother is deaf and dumb—the only one that has ever been received. Up to this time I have not learned of any of the children of deaf-mute couples in Ontario being mutes.'

(*Extract from 1883-4 Report.*)

'Much has been said and written during the last three months about a deaf-mute variety of the human race, and fears were expressed by the writers that the intermarriage of deaf-mutes perpetuated a race of deaf-mutes, and was strongly disapproved of. A great many statistics were collected from various sources to prove the theory. Of course, I cannot tell what the facts are in connection with other institutions, but, from the information we have here, I am led to believe that the conclusions drawn are erroneous. Six hundred and sixty-one children have attended, or are in attendance, at this institution, and from the records I learn that not a single parent of these children is deaf and dumb. A few of their grandparents were mutes and some of their great-great-grandparents. Of those who have been here and have intermarried, I have been unable to find that one of their offspring is deaf and dumb. The facts would seem to indicate that the intermarriage amongst the deaf and dumb is not the means of bringing into the world children similarly afflicted, and that deaf and dumb children are usually the offspring of hearing and speaking persons.

'R. MATHISON, *Superintendent.*'

Under date May 16, 1888, Mr. Mathison forwards the following particulars concerning an apparently deaf child in Ontario, both of whose parents are deaf:—

'I forward you extended history of the Terrell family.

'William Terrell, Maria Terrell, parents of 8 children noted below:—

'Both hearing persons, not related in the slightest degree;

no deaf-mutes have been known in either of their families, but they are the parents of 5 mutes in a family of 8.

' 1. William James, aged 39, mute, married. His wife and her sister both lost their hearing at an early age by sickness. Has had 3 children : one died in infancy, one at 13 months old, *and the other, now 2½ years of age, is apparently deaf and dumb.*

' 2. Benjamin, mute, married, wife also deaf; 6 children, who can all hear.

' 3. Rose, deaf-mute, married; has had 5 children—4 living; husband also deaf; children's faculties unimpaired.

' 4. Mary, deaf-mute, husband also deaf; 1 child, who can hear and speak.

' 5. Samuel, hearing, married, wife can hear; 2 children, both can hear.

' 6. Bessie, hearing, married, husband semi-mute; 1 child, who can hear.

' 7. John, deaf-mute, single.

' 8. Maria, hearing, single.

'The 2½ year old child of William Terrell is the only congenital deaf-mute child of a deaf-mute father I have heard of here. In the Gregg case the mother lost hearing at 4 years of age, and this child at 2 years of age.'

5. MACKAY INSTITUTE, MONTREAL.

Harriet E. McGann, Superintendent, expresses no opinion upon this question.

6. NEW BRUNSWICK INSTITUTION.

A. H. Abell, Principal. No reply to circular letter received to date, June 2, 1888.

7. FREDERICKTON INSTITUTION.

Albert F. Woodbridge, Principal. No reply to circular letter received to date, June 2, 1888.

SCIENTIFIC TESTIMONY.

Relating to the possibility of the formation of a deaf variety of the human race in America and the conditions necessary to establish it.

From Professor EDWARD D. COPE, Editor of the 'American Naturalist' and Member of the National Academy of Sciences.

'No. 2,102 Pine Street, Phila.: May 8, 1888.

'DEAR MR. BELL,—Your letter of May 5 is at hand. You desire my opinion relative to the possibility of the formation of a deaf variety of the human race. Also, given certain conditions, a deaf variety should arise. But what are these conditions? This is the point on which you wish my assistance.

'According to my views of evolution it is quite possible for a deaf or deaf-mute variety of man to arise and be perpetuated. It is not more improbable than that blind species of animals should arise and be perpetuated, a circumstance which has often occurred in the evolution of animals. The subject can be considered under two heads—first, the origin of such deaf-mutes; second, the perpetuation.

'First, as to the origin. Of this matter I know but little. In the case of sight, disuse is supposed to be the sufficient cause. Disuse of hearing is, however, difficult to experience in this world. Excessive use, that is, the constant presence of excessive noise, might, and does, cause deafness. The greater number of cases are, however, to be accounted for probably by disease. Dumbness would ultimately follow deafness.

'Second, as to perpetuation. The interbreeding of deaf-mutes should produce a deaf-mute race after a considerable lapse of time. Hearing is a sense of great antiquity, and the tendency to reproduce normal organs of hearing is so strong that they are to be looked for in the children of deaf-mutes for a long period. Reversions to hearing children would be

frequent. But the number, *i.e.* proportion, of deaf-mute children would constantly increase with succeeding intermarriages. It would, however, take a long period to produce a race of deaf-mutes which would not from time to time revert by producing normal children. But by preventing all marriages with normal persons such a result could in time be brought about.

‘The fact that you mention—viz. that the proportion of deaf-mutes born of deaf-mutes is larger than in the case of normal people—is consistent with the view you take, which I believe to be a correct one. It is sustained by what we know of the evolution of vertebrated animals.—I am very truly yours,

‘EDWD. D. COPE.

‘P.S.—I may be more specific with regard to some of the vertebrata. In the Batrachian class the organs of hearing have undergone with time a great degeneracy in the series of the *Urodela* (the tailed division). The semicircular canals only exist with their auditory nerve branches; but there are no ossicles, except the lid-shaped stapes, and no external ear. They are descended from types (*Gænocephala* and *Rhachitomi*) which had both. The *Urodela* (salamanders) are probably not entirely deaf, but their hearing must be very obscure. They are mute, except the species of *Desmognathus*, which chirrup sometimes, and *Amphiuma*, which does the same. They are all more or less subterranean or aquatic, and the condition of their auditory organs may be therefore due to disuse. The history of these regions will be found in the June number of the “*American Naturalist*.”’

From Professor ALPHEUS HYATT, Professor in Harvard University, Member of the National Academy of Sciences.

‘Boston Society of Natural History,

‘Berkeley Street, Boston, Mass. : May 8, 1888.

‘DEAR PROFESSOR BELL,—If congenitally deaf-mutes have been led by association, or otherwise, to seek each other in marriage, there can be no doubt that the most favourable

conditions for the formation of a race of deaf-mutes has been brought about.

‘This goes without saying on the principle of the transmission of hereditary tendencies, and certainly it cannot be a wise system which fosters such marriages.

‘If such marriages should continue through several generations I should regard it as almost certain that a deaf-mute race would be produced. It would be, to my mind, no serious objection that a proportion of the first generation of the offspring of deaf-mutes should be normally formed (*i.e.* have good hearing); I should expect that the following generations would have a steadily-increasing proportion of deaf-mutes, and, in a certain number of generations, that the major number, or all, would be deaf. I am not a practical breeder, but have been accustomed to study series of animals, with the view of testing what characteristics were hereditary. I have found that my experience coincided with that of breeders and the opinions of writers like Ribot and others, who hold that all characteristics tend to become inherited.

‘It would be a very strange contradiction of experience and theory if a deaf-and-dumb race were not produced by continual intermarriage of persons afflicted in this way. In fact, the onus of proof lies with those who assume the negative rather than with those who take the affirmative on this question.

‘Wishing you success in your humanitarian efforts, I am very sincerely yours,

‘ALPHEUS HYATT.’

From Dr. BOWDITCH, Professor in Harvard University, Member of the National Academy of Sciences.

‘Physiological Laboratory, Harvard Medical School,

‘Boylston and Exeter Streets, Boston : May 13, 1888.

‘DEAR PROFESSOR BELL,—I have received your letter of May 5, relating to the formation of a deaf variety of the human race.

‘I do not consider myself an authority on questions of heredity and breeding, but, as I understand the doctrine of evolution, there can be no doubt that you are perfectly right in maintaining that for the production of a true breed of deaf-mutes it is not necessary that the *majority* of the children of congenital deaf-mute parents should be born deaf, but only that the *proportion* of deaf offspring of such marriages should be greater than in the case of marriages between persons who are not deaf-mutes. That this is really the case I think you have shown very conclusively, and I have always considered your paper as a very valuable demonstration that the human race is capable of modification by selective breeding, as well as a useful warning of the danger which attends the purely philanthropic method of dealing with social problems.—Yours very truly,

‘H. P. BOWDITCH.’

From Professor WILLIAM H. BREWER, Norton Professor of Agriculture in Yale University, Member of the National Academy of Sciences.

‘New Haven, Conn. : May 25, 1888.

‘MY DEAR SIR,—You ask me for a statement of my “views upon the possibility of the formation of a deaf variety of the human race by the continued intermarriage of congenitally deaf-mutes.” Of such a possibility I have no doubt whatever.

‘As the subject is one of great interest and importance, I will give you at some length the general grounds of my opinion.

‘The term *Breed*, as used by farmers, stock-breeders, and fanciers, means a variety of domestic animals. Two attributes are necessary in the constitution of a breed—namely, the members must have some distinctive and recognisable character, and this character must be hereditary. The distinctive character may be but one single “point,” to be bred for, and the special development of any one “point” may become the foundation of a breed.

‘In practice, however, breeders usually recognise a combina-

tion of points more or less correlated to each other, and all bearing on the special uses or beauties of the breed.

‘The heredity of the distinctive character is essential, because, if not transmitted to the offspring as a rule, then the special points are but individual peculiarities. Individual peculiarities may or may not be transmitted by heredity, but they are liable to be, however acquired. Such peculiarities may be transmitted to some of the descendants and not to others; they may be transmitted entire or only in part; they may be transmitted to the immediate offspring, or they may be dormant in the offspring and reappear in succeeding descendants.

‘A breed is uniform only in those points which are considered essential to that breed. It may vary greatly in other characters. For example, the English thoroughbred (horse) is of many colours; the Trakene is of but one colour; Shorthorns are variously coloured; Devons are of but one colour, and so of other examples. But if from changes in the fashion, changes in the market, or any other cause, it becomes desirable to fix any character before varied, that is easily brought about.

‘As to the origin of existing breeds, some are ancient and their actual origin is unknown. Others are modern, and of some of these historical breeds we have a reasonably complete history. Some of these breeds are already completed and finished, as is the English thoroughbred; others are in process of evolution, as is the American trotter. Both these breeds are especially bred for speed, but are varied in their other characters. Other modern breeds are uniform in many characters, as for example the Poland-China hog and the Plymouth Rock fowl. Many of the ancient breeds which were well defined long before herd-books or flock-registers were known, have been changed in modern times; characters have become strictly hereditary (“fixed”) which were before uncertain; and other characters have become uniform which formerly varied. For example, the Galloway cattle formerly were mostly horned, but are now polled; Jersey cattle and Newfoundland dogs were formerly mostly spotted, but have now solid colours; the ancient Merino

sheep have diverged into distinct sub-breeds, of which the Saxon, the French, and the American Merino are well-known examples.

‘ We have so complete a history of the processes employed by which new breeds have been created and old ones changed, that the principles involved are as well understood as are those pertaining to any other branch of biological science.

‘ However different the details may have been in practice, the essential and controlling factor has been *artificial selection*.

‘ A breed may be founded on any character which is transmissible. Almost any character is sometimes transmissible, and, if so at all, its heredity may be increased and fixed by continued selection. The uniformity of transmission by heredity is related to pedigree, and the individuals vary much more during the early history of a breed than later, and after herd-books or pedigree-registers are established. These differences between individuals are sometimes very profound, extending even to important anatomical characters. For example, the middle of the last century the cattle of the Galloway breed were mostly horned, and that character continued so long as the presence or absence of horns was a mere fancy of the breeder. The time came when the hornless ones brought a slightly higher price; such were then selected more commonly for breeding, and during the first years of the present century most of the individuals were hornless, or with only scurs—that is, small horns attached to the skin only, and not to the skull by a bony core. After the herd-books were established for recording their pedigree, and associations for deciding what points of character the breed must have, and what they may not, and which denied record to an animal with even a scur, these disappeared, and now the breed is entirely hornless. Other equally instructive examples might be cited.

‘ In the creation of a new breed or the changing of an old one, we may say that we determine the character by selection; we establish and fix it by heredity, and we ensure it by pedigree.

‘It is conceded that the same biological laws apply to man and brute alike. I am not aware that any eminent biologist, naturalist, or breeder denies this. Let us now consider the especial case under discussion.

‘1st. Let considerable numbers of deaf-mutes marry. This is the selection, and deafness is the character.

‘2nd. If they have any congenitally deaf offspring (and we know they do), let these again intermarry. This increases the heredity of the character.

‘3rd. Continue this process for a few generations. This establishes the pedigree and enhances the results. How many generations are required to establish a new breed out of old materials has never been determined, but numerous authorities and associations have agreed as to the number of generations of ancestors of an established breed which should be required as equivalent to pure blood for record in herd-books and pedigree registers, and therefore suitable for perpetuating the breed. Five generations of sires and four of dams is a common rule, and I imagine that the chances of a child being born with hearing would be small if all its ancestors for a like number of generations had been congenitally deaf. It is, however, only in modern times, and since the days of printed pedigree records, that breeds have been kept so pure, and the special characters so uniformly transmitted. Such is still the case with all races of civilised man, where we have a greater variety of character than in the better defined breeds of animals, because of less purity of pedigree. So in the case of the intermarriage of the deaf, the liability of being born deaf would be diminished by intermarriage with hearing persons.

‘The only argument against the formation of a breed of men in whom complete or partial deafness will be a prevalent character, is, that many of the deaf-mutes have become so by disease or accident, and not by heredity. But no fact is better established or more universally recognised among breeders, than that many forms of unsoundness that may be of accidental origin may become hereditary. Ring-bone, spavin, and similar

diseases, are often as truly the result of accident as deafness, and these are considered fit cause of rejection in the prize stallion shows, as note the recent practice and the abundant literature on the subject. Defects of the organs of sense are especially noted in this connection, more especially those of the eye.

‘In the light of present biological science, and of the breeder’s art, it is inconceivable that the process of selection of deaf parents should not establish a deaf variety of the human race.

‘Yours truly,

‘WM. H. BREWER.

‘Professor Alexander Graham Bell, Washington, D.C.’

From Professor SIMON NEWCOMB, Superintendent of the United States ‘Nautical Almanac,’ Member of the National Academy of Sciences.

‘Washington, D.C. : May 2, 1888.

‘DEAR PROFESSOR BELL,—I have your circular of April 30, to which you append a request for my opinion regarding the possibility of the formation of a deaf variety of the human race by the continual intermarriage of congenital deaf-mutes.

‘That the continual intermarriage of persons possessing any peculiarity tends to make that peculiarity permanent is, I believe, a recognised law, constantly applied by breeders of new species in the animal and vegetable world. The result will, however, depend upon the general policy adopted.

‘If we take all the congenital deaf-mutes now living, and form them into a community into which no new blood enters in subsequent generations, there would be no tendency towards the formation of a deaf variety. The second generation would, as you have shown, contain an undue proportion of congenitally deaf, but these deaf would still constitute a minority of the total population, and continuous intermarriage of the whole mass would only result in the formation of a community in which an undue proportion of the members would be congenitally deaf.

To form a permanent type, it is necessary that the hearing offspring should be continually eliminated from the community, and their places taken by deaf persons born outside. All the conditions necessary to the ultimate formation of a permanent deaf-mute variety would then be fulfilled. Moreover, to bring about this result, it is not at all necessary that a separate community of the deaf should be formed. The system of deaf marrying deaf will lead to the same result, although the parties may be scattered through the whole population, instead of being aggregated into a community.

‘But this general statement does not give us any conception of the time which might be required to form the variety in question. Could breeders of human beings do as breeders of plants and certain animals can do, produce hundreds of offspring from a single pair, select those having the required peculiarity and eliminate the rest, the process would be very rapid. But, as human beings breed, it would be very slow. I have essayed a calculation as to the result of the policy in question on certain hypotheses; but I am unable to say how near these hypotheses approach the truth.

‘What we really want is a complete census of children born of marriages between the deaf. The proportion of deaf children to hearing children would then give us the probability that a child so born would be deaf.

‘In your memoir upon the formation of a deaf variety of the human race, you found that among the cases received into American institutions for the deaf and dumb 124 had both parents deaf. I also conclude from the table in Appendix Z that you found about 327 cases of marriages between deaf-mutes. In the absence of more complete statistics I shall assume that the ratio of deaf-mute children, both of whose parents were deaf-mutes, as collected by you, to the number of deaf who married deaf-mutes (654) gives a rude approximation to the required probability that deaf-mute parents will have deaf-mute offspring in the first generation. I assume this proportion to be one-fifth.

‘According to the law of heredity, the probability will increase in the case of each successive generation. In the absence of any exact knowledge of this law, I shall assume that the probability of deaf-mute parents having deaf-mute children increases through consecutive generations according to the series

$$\frac{1}{5}, \frac{1}{3}, \frac{1}{2}, \frac{2}{3}, \frac{3}{4}, \frac{4}{5}, \text{ \&c.}$$

‘Then assuming that we form an ideal community of n intermarried deaf-mutes, that in each generation we eliminate from this community the hearing children, and add n deaf-mutes from outside, and that each couple has, on the average, two children who grow up and marry, the number of the community at the end of $m + 2$ generation will be given by the series

$$\frac{6}{5}n + \frac{n}{15} \left(1 + \frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \frac{1}{m} \right).$$

‘The series within parentheses would correspond to the numbers of the community who were more likely than not to have deaf-mute children. In this case the formation of the deaf variety would be very slow, though ultimately it would be quite sure. At the end of the twelfth generation we should have only $\frac{n}{5}$ deaf-mutes more likely than not to have offspring of the same kind; at the end of the twentieth generation about $\frac{n}{4}$; but in each succeeding generation the probability of deaf-mute offspring would go on increasing.

‘Until we have more exact statistics of heredity I do not see how it is possible to do more than suppose a hypothetical case of this kind. The most precise statement I can make would be in the following form:—

‘1. The continual intermarriage of deaf-mutes through successive generations would ultimately result in the gradual formation of a deaf-mute variety.

‘2. But this tendency would be very slow, and many generations would have to pass away before the variety would be permanently established.

‘Yours very faithfully,

‘SIMON NEWCOMB.’

From Professor W. K. BROOKS, *Professor of Morphology in John Hopkins' University, Baltimore, Med., and Member of the National Academy of Sciences.*

‘I MUST preface the discussion of this subject by a definition. An *inherited characteristic* is one which the organism has derived from the fertilised germ. It may or may not have been manifested by the parents or other ancestors. If it is more common among either the ancestors, or the brothers and sisters and cousins of the organism, than it is in the race at large, this fact is scientific proof that it is an inherited characteristic according to the definition, for the germ out of which it developed is its only bond of connection with its collateral relations or its ancestors.

‘The experience of all breeders of domesticated animals and cultivated plants proves that only two conditions are necessary for the establishment of a new race or breed with any designated characteristic:—1st, the existence, in sufficient numbers to permit of propagation for a number of generations, without interbreeding, of individuals in which the desired peculiarity is inherited; and 2nd, the rigorous selection for breeding, generation after generation, of those children who inherit the designated characteristic.

‘All experience shows that if the peculiarity is *inherited*, as the word is defined above—that is, if the organism has received it from the fertilised germ, and if it has offspring by another organism with *the same* inherited peculiarity, the progeny of this union will contain a marked percentage of children with the same peculiarity; and that this percentage will increase rapidly in successive generations, and will soon approximate to 100.

‘Proof of this statement will be given soon. It is necessary, first, to point out that a congenital peculiarity is not necessarily an inherited peculiarity.

‘For example, so-called congenital deafness in human children may be divided into four classes:—1st. Cases where

there is no predisposition to deafness, and where the hearing is lost by accidents after birth, but before the time when normal children manifest consciousness of sounds. 2nd. Cases where there is no predisposition to deafness, but where hearing is lost by accident before birth. 3rd. Cases where there is an inherited predisposition to deafness. 4th. Cases where actual deafness is inherited.

‘These four classes cannot be distinguished by any intrinsic evidence. If, however, a deaf child has more deaf brothers or sisters or cousins or ancestors than the average for the community, this fact may be regarded as scientific evidence that it belongs to either class 3 or class 4.

‘The question whether classes 1 and 2 transmit their peculiarities by inheritance is still under discussion, and much difference of opinion exists, but we have abundant proof that this is true of classes 3 and 4.

‘It has been asserted, however, that inasmuch as each child is descended not only from its parents, but also from a long line of more remote ancestors, the influence, in inheritance, of an abnormal or exceptional parental peculiarity may be so overbalanced by the influence of the innumerable series of normal ancestors that the child will not resemble its parents, but will tend to revert to the normal type.

‘This is undoubtedly true when the characteristic is not inherited by the parent, but is induced by other influences. It is not true, however, in cases where both parents have *the same inherited* peculiarity.

‘It is only in a figurative sense that a child is descended from remote ancestors as distinguished from its parents, for all the matter in the germ comes to it from the bodies of its parents. If, then, each parent has the same inherited peculiarity—for example, a predisposition to deafness—this signifies that the sum or resultant of the combined influence of their ancestry tended to this result, to which it must necessarily tend in the child as well. All authorities upon inheritance are fully agreed that in such cases the child is enormously more likely than a child

with normal parents to exhibit and to transmit the same peculiarity.

‘So far as I am aware, the only authority which can be quoted as apparently opposed to this opinion is that of Galton; and an examination of his paper will, I think, show that in this case the opposition is apparent rather than real, and that his results are quite reconcilable with the view which has been advocated above.

‘He says (“Nature,” September 4, 1885), “It is some years since I made an extensive series of experiments in the produce of seeds of different sizes, but of the same species. . . . It appears from these experiments that the offspring did *not* tend to resemble their parent seeds in size, but to be always more mediocre than they; to be smaller than they if the parents were large; to be larger than the parents if the parents were very small;” and that the analysis of the family records of heights of 205 human parents and 930 children fully confirms and goes far beyond the conclusions obtained from seeds, as it gives with great precision and unexpected coherence the numerical value of the regression towards mediocrity. He says that this regression is a necessary result of the fact that “the child inherits partly from his parents, partly from his ancestors. Speaking generally, the farther his genealogy goes back, the more numerous and varied will his ancestors become, until they cease to differ from any equally numerous sample taken at haphazard from the race at large. Their mean stature will then be the same as that of the race; in other words, it will be mediocre.” He illustrates this by comparing the result of the combination in the child of the mean stature of the race with the peculiarities of its parents to the result of pouring a uniform proportion of pure water into a vessel of wine. It dilutes the wine to a certain fraction of its original strength, whatever that strength may have been.

‘He then goes on to the deduction that the law of regression to the type of the race “tells heavily against the full hereditary transmission of any rare and valuable gift, as only a few of the

many children would resemble the parents. The more exceptional the gift the more exceptional will be the good fortune of a parent who has a son who equals, and still more if he has a son who surpasses him. The law is even-handed; it levies the same heavy succession tax on the transmission of badness as well as goodness. If it discourages the extravagant expectations of gifted parents that their children will inherit all their powers, it no less discourages extravagant fears that they will inherit all their weaknesses and diseases. . . . Let it not for a moment be supposed that the figures invalidate the general doctrine that the children of a gifted pair are much more likely to be gifted than the children of a mediocre pair; what it asserts is that the ablest of the children of one gifted pair is not likely to be as gifted as the ablest of all the children of many mediocre pairs."

'Interesting and valuable as these results from the study of stature are, a little examination will show that they have no application to the case stated above; and there is ample evidence that if Galton had studied by themselves the cases where the parents were alike in stature, both short or both tall, and had picked out from among these the ones where the exceptional stature was due to the same peculiarity—for example, a very long femur—and if from among these he had again selected those in which each parent had relatives with the same peculiarity, he would have obtained a very different result.

'It is well known that an hereditary peculiarity—that is, one which is shared by other members of the family—often shows an astonishing tendency to persist in later generations, quite independently of the time it has already persisted, and that, too, when one of the parents in each generation is normal.

'Of this a most remarkable illustration may be found on page 30 of Professor Bell's memoir on "The Formation of a Deaf Variety of the Human Race."

'In the H. family of Kentucky two brothers and a sister inherited from their parents a common predisposition towards deafness, as is shown by the fact that they all became an-

cestors of congenital deaf-mutes, although only one of them was deaf.

‘We have no information regarding the first generation—the parents—although they were probably not deaf. In the second generation one of the three children was deaf. In the third generation all the grandchildren were deaf. In the fourth generation the records are incomplete, but all the children which are known, six in number, are deaf.

‘In the fifth generation selection was introduced, as three of the children married deaf-mutes. The records are very incomplete, but of the six descendants known one is deaf.

‘This remarkable case is given in the following table, and it seems to show that in the case of an inherited peculiarity the tendency of the children to resemble their parents may be vastly greater than their tendency to revert to the normal type of the race, even when there is no selection and one of the parents in each generation is normal.

First generation .	No information concerning their hearing				
Second generation .	Son deaf	Daughter hearing	Daughter hearing		
Third generation .	Seven deaf children	Two deaf children	Two deaf sons		
Fourth generation .	No information concerning the descendants	One child had two deaf children; no information concerning the other	One son did not marry; the other had two deaf daughters, D ¹ , D ² , and one deaf son, S.		
Fifth generation	No information	No information	D ¹ Married a deaf man One deaf son	D ² Married a deaf man No children	S Married a deaf woman Five hearing children In this case the mother is not known to have inherited deafness

‘I find among the notes which Professor Bell has kindly

placed in my hands another instructive case. O. H. was the only deaf child in a family of 11 children. He had 4 children, 2 of them deaf, and 3 grandchildren, 2 of them deaf, so that the relative predisposition of his parents, himself, and his children to transmit deafness may be represented by the series of fractions, $\frac{1}{11}$, $\frac{1}{3}$, $\frac{2}{3} = \frac{3}{33}$, $\frac{11}{33}$, $\frac{22}{33}$.

‘ These facts, and many more which might be quoted from our stock of information regarding domesticated animals, show that hereditary peculiarities are often very persistent, independently of selection, and the experience of all breeders shows that this tendency is greatly intensified when both parents have *the same* inherited peculiarity.

‘ Not only is this the case, but it is also well known, and proved by many observations, that the normal or type to which the average children of exceptional parents tend to revert may itself be rapidly modified in any desired direction.

‘ In proof of this I refer to the following experiments in selection by Fritz Müller (Ein Zuchtungsversuch an Mais. Kosmos, 1886, 2, 1, p. 22).

‘ Yellow corn is very variable in many respects. The number of rows of kernels on the cob is usually from 8 to 16, cobs with 10 or 12 rows being the most common, while one with 18 or 20 rows is very seldom found. After searching through several hundred cobs, Fr. Müller found one ear with 18 rows, but none with more.

‘ In 1867 he sowed, at different times, and in such a way as to prevent crossing, (1) seed from the cob with 18 rows; (2) the seed from the finest 16-rowed ear; and (3) the seed from the finest 14-rowed ear. In 1868 he sowed (1) seed from a 16-rowed ear which had grown from seed from a 16-rowed ear; (2) seed from an 18-rowed ear from 16-rowed seed; and (3) seed from an 18-rowed ear from 18-rowed seed. In 1869 he sowed (1) seed from an 18-rowed ear with 18-rowed parents and grandparents; (2) seed from a 20-rowed ear with 18-rowed parents and grandparents; and (3) seed from a 22-rowed ear from seed from an 18-rowed ear produced from seed from a

16-rowed ear. The results are given in the accompanying table.

Number of rows on cob from which seed were taken	1867			1868.			1869.		
	14	16	18	16 16	16 18	18 18	18 18 18	18 18 20	16 18 22
Total number of cobs produced	658	385	205	1,789	262	460	2,486	740	373
	%	%	%	%	%	%	%	%	%
8-rowed cobs . . . . .	.3	—	.5	.1	—	—	—	—	—
10-rowed cobs	14.4	3.	1.	1.4	.8	.2	.1	—	—
12-rowed cobs	48.0	22.8	13.	22.6	14.5	7.8	6.1	6.1	2.7
14-rowed cobs	35.6	48.6	37.8	48.5	46.7	35.4	37.3	28.5	25.3
16-rowed cobs	3.2	18.7	34.5	22.2	23.7	33.8	33.5	41.6	41.8
18-rowed cobs . . . . .	.5	6.8	12.6	4.9	12.3	18.2	18.6	20.2	24.1
20-rowed cobs	—	.1	.3	.3	1.2	4.4	3.9	2.8	4.8
22-rowed cobs	—	—	.3	—	.8	.2	.5	.8	1.
26-rowed cobs	—	—	—	—	—	—	—	—	.5
Average	12.61	14.08	14.9	14.15	14.39	15.52	15.57	15.70	16.15

‘It will be seen from this table that the number of ears with few rows decreases very rapidly in plants grown from seed taken from ears with many rows, and that the greater the number of rows on the ear from which the seed is taken the smaller is the number of ears produced with a small number of rows. It is also plain that, as the number of rows on the ear from which the seed was taken increases, the number of ears produced with a large number of rows increases, and that we have in each case a very considerable number of ears which equal their parents and a few which excel them, even when the parent seeds are far beyond the maximum for all ordinary corn. Fritz Müller says he has never, under ordinary conditions, except in three instances, found an ear with more than 18 rows, and Darwin puts the maximum at 20 rows; yet we have among the children of seed from a 22-rowed ear no less than 4.8 per cent., or 18 ears out of 373, with 20 rows, and one ear out of 373 with 26 rows, and it will also be seen that the number of children which equal their parents increases in each case in each successive generation.

‘Thus the seed planted in 1867 from an 18-rowed ear pro-

duced 12.6 % of 18-rowed children. The 18-rowed ear planted in 1868 from an 18-rowed parent produced 18.2 % of 18-rowed children, and the 18-rowed seed planted in 1869 from 18-rowed parents and grandparents produced 18.6 % of 18-rowed children. The series is 12.6 %, 18.2 %, 18.6 %.

'The rapid change which took place in the "type" after only three years of selection is well shown by the following table, which gives the dominant number of rows at each sowing, and also the percentage of ears which had this number:—

1867. 12 rows, 48 %.	|	1868. 14 rows, 35.4 %.
1867. 14 ,, 48.6 %.		1869. 14 ,, 37.3 %.
1867. 14 ,, 37.8 %.		1869. 16 ,, 41.6 %.
1868. 14 ,, 48.5 %.		1869. 16 ,, 41.8 %.

'The minimum for the third generation is equal to the mean for the first; the mean for the third generation, 16 rows, is very near the maximum for ordinary corn, and the maximum for the third generation is far beyond the maximum for the grandparents.

'I believe that a deaf race might be produced under less rigorous conditions than those which I have stated on the first page, but I am sure all authorities will agree that if these conditions are given the result will be as certain as any result can be which involves the phenomena of life. These are always so extremely complex that categorical answers to definite problems are seldom possible.'

IV. INSTRUCTION OF THE DEAF.

Views expressed by Superintendents and Principals of American and Canadian Schools for the Deaf in answer to a Circular Letter of Inquiry.

1. AMERICAN ASYLUM, HARTFORD.

‘I give you statistics so far as I have time to get them accurately. For the last three years a much larger proportion of our pupils have been taught articulation than formerly, and a large share of those not taught now are those who entered before that date. Of the 57 pupils who have entered our school in the last three years only thirteen were dropped as showing too little ability or aptness in the line of articulation and lip-reading to make it worth while to continue their instruction in those branches, though some of them are excellent scholars.

‘From experience here and repeated examinations of the work in oral schools I feel fully convinced that the combined system accomplishes the greatest good to the greatest number.

‘JOB WILLIAMS, *Principal.*’

2. NEW YORK INSTITUTION, WASHINGTON HEIGHTS.

Chauncey N. Brainard, Superintendent, Isaac L. Peet, Principal. No reply to circular letter received to date, June 2, 1888.

3. PENNSYLVANIA INSTITUTION, PHILADELPHIA.

‘The combined system has no place in our school at present. Our pupils are taught either *orally* or *manually*. . . . I believe

in *oral* instruction (separate oral) for all deaf children who can be successfully instructed by that method, and in *sign* instruction for those who cannot.

‘A. L. E. CROUTER, *Principal.*’

4. KENTUCKY INSTITUTION, DANVILLE.

‘I think in all cases possible articulation should be taught when it is even probable that the pupils will improve sufficiently to render it of practical benefit to them in after life, but at the same time I think that the semi-mutes and a few of the exceptionally bright congenitally deaf, in the proportion of about 15 to 25 per cent. of the whole, are all that can be successfully educated by this method.

‘W. K. ARGO, *Superintendent.*’

5. OHIO INSTITUTION.

‘Just now I am very full of work arranging for examinations and the close of school. I will endeavour to have the work done for you soon.

‘AMASA PRATT, *Superintendent.*’

No reply to circular letter received to date, June 2, 1888.

6. VIRGINIA INSTITUTION.

‘I do not think that more than 20 per cent. of the pupils at this institution could be educated by the articulation method. I am satisfied that the “combined system” is not practicable. Children who are taught by the articulation method should be kept away from sign schools if possible. In the case of semi-mutes the articulation is useful, even in such schools as this, in enabling the pupil to retain what power of speech he possesses upon entrance, and to help him in learning to read from the lips; for congenital mutes it is, we may say, useless. I

intend to make an effort to induce the three States, Maryland, Virginia, and West Virginia, to establish a branch school at Winchester, let us say, to which pupils from each of the States named can be sent, and in which instruction will be given in articulation, and by means of articulation alone, being satisfied, as I said above, that no deaf-mute who is permitted to run with other mutes out of school, using signs as their sole means of communication, will ever profit much by instruction in articulation which is given only for a brief period in each day (from $\frac{1}{2}$ to 1 hour), while the rest of the 24 hours is spent either in a sign class or in company with deaf-mutes who use signs alone as a means of communication. Understand that I speak here only of what I have observed in *this* school in the course of the last 14 years. I do not pretend to make an issue with the advocates of the so-called "combined" system. They are welcome to their opinion and I claim to be entitled to mine, and I believe I am warranted in saying that I can establish mine so far as *this* school is concerned.

‘THOMAS S. DOYLE, *Principal.*’

7. INDIANA INSTITUTION.

Eli P. Baker, Superintendent, expresses no opinion upon this question.

8. TENNESSEE SCHOOL.

‘We believe that putting semi-deaf pupils in the "articulation" or "oral" class teaches children to discriminate between the sounds of different words, or that such training improves the hearing, which we regard as one and the same thing *in results*.’

‘THOMAS L. MOSES, *Principal.*’

9. NORTH CAROLINA INSTITUTION.

W. J. Young, Principal, expresses no opinion upon this question.

10. ILLINOIS INSTITUTION.

‘All pupils on entering the institution are examined and tried, to ascertain those who give promise of doing well in articulation. . . . Articulation is not used as the sole means of instruction in any case, but in most of these cases it is one of the means of instruction. The number varies as pupils improve.

‘PHILIP G. GILLETT, *Superintendent.*’

11. GEORGIA INSTITUTION.

‘We have always tried to improve the speech of those who come to us having the ability to use spoken language to even a very limited extent. . . . I have nothing to suggest relating to the instruction of the deaf that would be of value to the Commission.

‘W. O. CONNOR, *Principal.*’

12. SOUTH CAROLINA INSTITUTION.

N. F. Walker, Superintendent, expresses no opinion upon this question.

13. MISSOURI INSTITUTION.

William D. Kerr, Superintendent, expresses no opinion upon this question.

14. LOUISIANA INSTITUTION.

John Jastremski, Superintendent. No reply to circular letter received to date, June 2, 1888.

15. WISCONSIN SCHOOL.

‘In regard to methods of instruction, I believe that instruction by means of articulation should be closely adhered to in all cases where oral instruction is imparted, and in cases where pupils cannot avail themselves of the oral method in being taught, I would place them in classes taught by the manual method, by spelling and writing. I regard the combined method as the best for all cases, and consider manual instruction a necessity for the great majority of deaf-mutes.

‘JOHN W. SWILER, *Superintendent.*’

16. MICHIGAN SCHOOL.

M. T. Gass, Superintendent, expresses no opinion upon this question.

17. MISSISSIPPI INSTITUTION.

‘I am satisfied we do not have enough teachers in our institutions for the number of pupils. The smaller our classes, the better the results. While it might seem extravagant on the part of the Government to employ a teacher for every 5 or 10 pupils, yet if such a teacher is competent and faithful it would not be many years before the Government would be repaid in a large ratio by the intelligent productive power of the pupils.

‘J. R. DOBYNS, *Superintendent.*’

18. IOWA INSTITUTION.

Henry W. Rothert, Superintendent, G. L. Wyckoff, Principal. No reply to circular letter received to date, June 2, 1888.

19. TEXAS ASYLUM.

W. H. Kendall, Superintendent, expresses no opinion upon this question.

20. COLUMBIA INSTITUTION.

E. M. GALLAUDET, *President*.

‘(A.) Kendall School. I think that Dr. E. M. Gallaudet’s statements to the Royal Commission render anything I might say in the same connection superfluous.

‘JAMES DENISON, *Principal*.’

(B.) National College. E. M. Gallaudet, President. Statement made to Royal Commission, 1887.

21. ALABAMA INSTITUTION.

Jos. H. Johnson, Principal, expresses no opinion upon this question.

22. CALIFORNIA INSTITUTION.

Warring Wilkinson, Principal, expresses no opinion upon this question.

23. KANSAS INSTITUTION.

‘My belief, after fifteen years’ experience in the work of educating the deaf, and after having made the methods used in our American institutions a careful study, with the purpose of ascertaining the best methods, or combination of methods, is that the ideal institution for the instruction of the deaf is the one where it is practicable to put into use both the sign, pure oral, and auricular methods. To do this with the greatest amount of success, however, necessarily involves a very small number of

pupils to each teacher, and is therefore in most cases impracticable.

‘S. T. WALKER, *Superintendent.*’

24. LE COUTEULX ST. MARY'S, BUFFALO, N.Y.

Sister Mary Ann Burke, Principal, expresses no opinion upon this question.

25. MINNESOTA SCHOOL.

‘I have no hesitation in saying that for the education of the deaf at public expense, where from seven to ten years are allowed for this purpose, the combined or eclectic system succeeds in more cases than the oral. The oral system does fail in giving the necessary discipline and education for citizenship where the combined system succeeds. No conscientious man can consistently use the precious time of youth, and expend public funds for the purpose of giving a lad an accomplishment liable to fall into disuse in a few years, when he can in the same time, and with the same means, give a much better mental and moral training without the accomplishment of very imperfect and often unintelligible speech. Both systems are valuable, and neither is to be discarded entirely.

‘J. L. NOYES, *Superintendent.*’

26. INSTITUTION FOR IMPROVED INSTRUCTION, NEW YORK CITY.

D. Greenberger, Principal, expresses no opinion upon this question.

27. CLARKE INSTITUTION.

Caroline A. Yale, Principal, expresses no opinion upon this subject.

28. ARKANSAS INSTITUTE.

F. D. Clarke, Principal, expresses no opinion upon this question.

29. MARYLAND SCHOOL.

'I could not, without taking more time than would be allowable, submit anything under the fourth heading, and doubt whether I could add anything to the common stock on this point.

'CHARLES W. ELY, *Principal.*'

30. NEBRASKA INSTITUTE.

John A. Gillespie, Principal, expresses no opinion upon this question.

31. HORACE MANN SCHOOL.

Sarah Fuller, Principal, expresses no opinion upon this question.

32. ST. JOSEPH'S INSTITUTE, FORDHAM, N.Y.

Madame Ernestine Nardin, President, expresses no opinion upon this question.

33. WEST VIRGINIA SCHOOL.

H. B. Gilkeson, Principal. No reply to circular letter received to date, June 2, 1888.

34. OREGON SCHOOL.

P. S. Knight, Superintendent, expresses no opinion upon this question.

35. MARYLAND SCHOOL FOR COLOURED DEAF-MUTES.

F. D. Morrison, Superintendent. No reply to circular letter received to date, June 2, 1888.

36. COLORADO INSTITUTE.

John E. Ray, Superintendent, expresses no opinion upon this question.

37. CHICAGO DAY SCHOOLS.

[The Principal of these affiliated schools, Mr. Philip A. Emery, has forwarded a number of printed pamphlets containing his views relating to the instruction of the deaf. These have been bound into one volume marked 'Emery Pamphlets.'

The following extracts are passages from Mr. Emery's pamphlets which he marked as expressing his ideas. Mr. Emery is himself deaf, and was educated in one of our institutions. It should be noted that the expression 'oral children' refers to ordinary hearing and speaking children, and not to deaf children taught orally. And 'oral schools' are ordinary public schools for hearing children, and not schools for the deaf on the oral plan.—A. G. B.]

EXTRACTS.

From Pamphlet No. 1.—'A Plea for Early Mute Education, Deaf-mute Day Schools, and the Objections to them Answered.'

'Aside from the State schools, every town and city that can muster five deaf-mute children of school age should have a deaf-mute department connected with its town or city school, under the control of the School Board and supported out of the school fund; and arrangements should also be made to send such children to the nearest State school, after three to five years of instruction in the day school, if the State school is within easy

reach (not over one hundred miles at most). But if not, and the city and adjoining counties have about 300,000 inhabitants, they should have an institution of their own. The day school system can be kept up till it has two or three classes of eight or ten pupils each, then the city should have a regularly organised institution. Hence, all those cities like Cincinnati, Louisville, Chicago, Quincy, Milwaukee, Green Bay, Toledo, Cleveland, Buffalo, Savannah, Ga., New Orleans, Fort Wayne, Lafayette, Logansport, and other cities, should by all means have day schools and a mute high school of their own.

‘The high schools should be located in a healthy suburb, and should allow those pupils living in the city who desire to go home at the close of school on Fridays and return on Mondays to do so, in order to save that much of boarding expense to the State, and also that the children may be more or less under the direct home and parental influences and prevented from being entirely weaned from the same.

‘A deaf-mute taken from all the good influences of a home, and thrust into a crowd of fellows of misfortune like himself, in an elegant and imposing building, and *subjected to a change of habits and exercises almost if not entirely foreign to that of a home*, is sure to acquire *habits, tastes, and ideas that render him shiftless, capricious, and visionary in after life.*

‘The carrying out of false ideas narrows the educational chances of the mutes, and limits their acquirements to *one-fourth*, if that much, to what is given oral children. The very reverse should be the idea and the aim. To give mutes the most varied, the broadest, and the largest possible school training, with the least amount of State boarding, should be the prevailing idea of all the teachers and friends of the mutes. This should also be the aim and acts of the State. It savours more of *true benevolence* than sailing under the cloak of charity, which is a farce, a fraud!

‘The common school law only limits the schooling of oral children from six to twenty-one—*i.e.* as a free gift, it schools them FIFTEEN YEARS. In the mute State schools the pupils

formerly got only FIVE YEARS from their A B C to graduation ! By what authority and moral right the State or Trustees of mute schools can limit the mutes to only five years, or a day less than allowed oral children, we are at a loss to understand, unless it be the great cost of boarding. In some of the mute schools the time has been lengthened to eight and ten years, which is an advance in justice ; but as the mute needs a schooling far more than an oral child, he should not be limited to a less length of time. His boarding should never be subtracted from his school time at all. Every mute has a just moral claim to at least FIFTEEN full school years of instruction, and no State or Trustees have any legal or moral right to shorten the time a single day. It is not only grossly unjust, but also *unconstitutional*, to legislate away a single day from the mute's moral right to schooling. The Legislature or Trustees may, if they choose, *lengthen* the time, but they can never curtail it.

‘ But as it is a *moral and social disaster* to take a mute away from home, and from the entire control of parents and home influences, from ten years old till he is fifteen or twenty, some auxiliary plan must be adopted to prevent this in a large measure, if not altogether, and to give him an earlier start and a larger privilege, equal to that of oral children at least, from six to twenty-one years. In some of the boarding mute schools they have been admitting mutes as young as seven or eight, but the experiment seems to have proved a failure, not because the children were too young *to learn*, but because too young for the rules and military-like care of such schools, and the Trustees in some instances have revoked the terms of admission back to ten years. While this is just one way, it is unjust another. For a child that is a mute should receive attention in the educational line, in its broadest sense, the moment it becomes deaf ; and not be left to ignorance, sensuality, till ten years old. Schooling a mute at home is a splendid preventive of indolency of both mind and body, and thus bars the mutes from the tendency to stupidity, blank ignorance, sensuality, &c., that they acquire by being neglected after six years of age till ten or twelve, and which

gives so much trouble when they do enter school, and takes so much valuable time to start them in book learning, and break them of bad habits.

‘General Eaton says, on page ccxii of his report for 1881 :—

“The education of the deaf-mute child should be commenced in the home at the earliest practicable moment. He should be encouraged in all active exercises, since they occupy his mind and strengthen his body. He should be shown novel and interesting objects, that his powers of observation may be quickened and his mind furnished with material for thought. The *finger alphabet*, simple writing and drawing, and the meaning of figures may be taught by parents or by older brothers or sisters. Above all, the *moral education* of the child should not be neglected, as his future acquirements depend largely upon it. . . . As the deaf child has more than ordinary difficulties to overcome in obtaining an education, there should be no obstacle placed in the way of his entrance upon school-life at as early an age as may be deemed advisable.”

‘The mute day school seems to meet this want quite well. In the first place, it DOES NOT take the child away from home except during school days—9 A.M. to 3 P.M.—and leave him to live and board with his parents, and be under their entire control, the same as oral children. In the second place, it admits him when he is six years old, and CANNOT stop him till he graduates, be it fifteen or more years. In the third place, it costs the State nothing for board.

‘True, this may not be done for all of the mutes, as will be seen further on, as to how the isolated mutes should be provided for. As for those living in a city, we have already explained the way for them.

‘Schools similar to those in Chicago have been established in London, and placed by the School Board under the supervision of Rev. William Stainer. In order to extend their benefits, *homes have been opened* near them for the accommodation of children *living at a distance*. An account of these homes says :—

“Mr. Stainer, aided by benevolent friends, has opened at two or three points near the schools ‘ladies’ Christian homes,’ where the children are brought together and provided with board and lodgings from Monday until Friday, returning to their homes for Saturday and Sunday. Each home has accommodation for forty children, and they are received as young as four years of age. Their parents pay the cost of their food. Besides the weekly boarders, there are some children who, having no homes of their own, are placed in these establishments as permanent boarders by boards of guardians, the Royal Association in Aid of the Deaf and Dumb, and benevolent individuals. The advantage of the homes is not only that children living at a distance are brought near to the schools, but also that out of school hours they are surrounded with educational and moral influences, while still maintaining their family relations and home ties by weekly visits.”—[From *Report of the Commissioner of Education*, 1881.]

‘Objections to Mute Day Schools Answered.’

‘The first, and perhaps the strongest objection to these schools is, that regular attendance is impossible, on account of the unreliableness of continual good weather.

‘True, these day-schools, like the oral common schools, are more or less subjected to the weather. On this account they cannot be as regularly attended as the State boarding-schools—deaf and dumb institutions. Yet they (mute day-schools) are as regularly attended as the oral schools. Because storms or very bad weather interrupt the regular attendance of oral schools, is that a good reason *against* their existence, and a proof that they should exist, or that they should exist only as boarding-schools? Our mute day pupils are just as anxious to attend these day-schools as the boarding-school pupils are to get back to school at the close of their vacation, and for the same reason too!—and this during bad weather also. We are often amazed at their regular attendance

during inclement weather. If they do now and then miss a day on account of bad weather, it does not always detract from their school-room progress. On the contrary, it often whets their mental appetite. The home jars, street sights and episodes, and their contact with people, &c., not only increases their stock of general knowledge, but also their desire for learning. The principal of the St. Louis day-school, Mr. D. A. Simpson, presents many arguments to prove that it is best for deaf children to remain at home during their school days, and answers the objections to day-schools as follows, in his letter to the Commissioner of Education, page ccxi of Report of 1881:—

“The only strong point which opponents of day-schools can advance is the difficulty of classification of pupils and the large percentage of daily absence from school. To this it may be replied that some of the very important advantages which a day-school has over a State institution more than compensate for this difficulty of classification, and, as to absence from school, it is not at all true, as far as the St. Louis day-school is concerned, that the percentage of daily absence is large. Here, with forty-one pupils enrolled, the average daily absences do not often exceed four, less than one from each class.”

‘Is not this very objection also more than counterbalanced by *better* health, caused by the daily exercises of a “long, free run” in going to and returning from school in the open air, than that of the boarding-school pupils?—not only of stronger physical health, but also *clearer and stronger mental powers*? Is it not a fact that more children are broken down, and the germs of consumption planted, by too close and long confinement, than by outdoor exposures? Compare the pupils of a day-school and those of a boarding-school as to health and mental vigour, and see if this is not so. We are not here contending against boarding-schools as such at all; at least *not against small ones*, if the children are under no military-like rules, and who have more open-air and home-like freedom than can be allowed in large boarding-schools. Again, is not this objection to day-schools, on account of irregular attendance, more than *overbalanced* in

the instructing and training of mute children some three or four years earlier than they are in boarding-schools?—and that, too, though the instruction on this account may not be quite so good. Is not this early, though ever so irregular, teaching of mutes, worth something as a PREVENTIVE against many bad habits and *blank mental crusting*, or spiritual blindness and mental callousness, so common with mutes who have been allowed to grow up in ignorance, unschooled till nine, ten, or more years old? The school year of many of the State mute schools runs from the second Wednesday in September to the second Wednesday in June, or thirty-eight weeks. Five days in school each week makes 190 school days: this, on a ten years' course, which is the longest time in any State schools, makes 1,900 school days; and in those of eight years' course, 1,520 school-room days.

'In the day-schools, the school year has forty weeks—or 200 school days—and from six years old to twenty-one gives the mutes FIFTEEN YEARS! or 3,000 school days!! If he averages one day each week for absence on account of bad weather, which is a large allowance, it will leave him 2,400 days in school, and 500 days, or two and a half years, longer than the ten-year course; and 880 days, or four years, more than the eight-year course! What now has become of the objection?

'Besides the fact that the mute's boarding at home FORCES his folks to learn to talk with him in his easy, natural, and quick way, which is far better and easier in most cases than to force him to *lose much valuable school time* in learning articulation, it also more or less *educates the public* in the mute's peculiar characteristics and his language. This is of vast importance to the mute. For it is not after all the mode or manner by which the mute carries on communication, as it is the familiar acquaintance with the mutes by the public. Where mutes are well known by the public, especially mutes of good morals, they have far less trouble to get along, and in communication by signs, than they do where they are strangers or people do not know much about them. While we are not opposed to mute institutions for the country mutes, yet it is a fact that institu-

tion-mutes *too often* get entirely too much weaned from the public as well as from home, and when their school course is run, and they return home, they are strangers—foreigners—to the neighbourhood; and this *acts against* them, no matter how well educated. Some people think them semi-gods in learning, and “stand off!” And as most people can’t write well nor understand overwell the gruntal and peculiar enunciation of articulation, &c., it causes them to act cold and distant, and thus leave the mute too severely alone, even when they would like his help, if they were only FAMILIAR by ACQUAINTANCE with him.

‘This *unfamiliarity*, and therefore coldness and distance of the mute’s relatives and the public, soon breeds in him discouragement, if not disgust, and off he goes to see the world or seek the companionship of his old school acquaintances, here, there, and yonder. If he can’t do this, he lingers around home like a drone. Education is a fine thing, but when it, or rather the necessity of boarding away from home so early and so long, lifts him *above* his home and relations, it does him harm, and raises that ugly question, “Is it not more of a curse than a blessing?”

‘There is still another point, and that is, the day-school not only familiarises the business public with mutes in seeing them so often, but it familiarises the *oral school children* with the mutes, and enables them both to learn to communicate with each other while going to and returning home from school together, and playing together, and thus they *grow up together*, and live and die old friends of childhood and school-days. This interweaves them together, as it were, into social and business life, and thus prevents in a large measure that alienation of mutes from the oral people that is so ugly in a business and social way.¹ Raise a cat and dog *together* from birth to maturity and they will always be friendly, no matter about the vast difference in their natures, but raise them *apart*, and lo, “a cat and dog life!” Apply the illustration to the different classes of

¹ Prof. A. G. Bell, of telephone fame, has publicly taken the same view of the question, and insists upon it that the mutes must be raised and *schooled* with the oral children.

children, and it needs no prophet to foretell the results. We speak here not from a theoretical point, but from many a sad experience, and thirty years among mutes out of school.

' *A Summary.*—Now let us briefly recast the advantages of a mute day-school, and see how stand the advantages *versus* the disadvantages by comparison.

' 1. It begins the education of mutes at or near their home, where they can board AT HOME, and thus be under the direct care and influence of their parents, for at least the first few years, and prevents them in a large measure *from getting weaned* from their home and losing their *love* for their parents and home, which is too often the case when mutes receive *all* their education away from home. Therefore they are more INDEPENDENT and less INSTITUTIONISED.

' 2. It gives mute children more years of schooling—the same number of years that oral children receive, which in many States is from six to twenty-one; while State boarding-schools, are limited on account of the vast expense of boarding, &c., generally making the best scholarship of mutes about equal to oral children of the ages of ten and twelve years! As mutes need schooling far more than oral children, they should by all means receive as much and not *less*. Hence, day-schools give mutes the same length of time as oral children, and save to the State at least one-half of the special appropriation, or making that much less needed for boarding, by reducing the time necessary in a boarding-school to one-half—*i.e.* schooling a mute from six to sixteen in a day-school, and then five years (sixteen to twenty-one) in a boarding-school will give a mute three times better education than can be had without going to a day-school.¹ That, too, without any greater cost to the State.

¹ Though common sense, justice, and the common law give the mute the same amount of schooling, yet in some States the Legislature should enact a special law requiring School Boards to open a day-school wherever five or more mutes can be got together, as it saves to the State four to six years of boarding expenses; and this saving of boarding more than covers the cost of the day-schooling: thus giving mutes a far better education at no greater cost, if as much, than all schooling in the institution. Hence what is taken from the

' 3. It prevents the mutes from growing up in ignorance, stupidity, crustiness, and bad habits in a large measure, if not altogether. A mute at six is often "bright," and if not taken in hand while young, will grow sour, morose, and vicious as he grows older; uncared for, the more he feels and broods over his misfortune; which is checked if his education is commenced early; while, if left till ten, he often becomes a "hard case," or a "dull boy." This is illustrated in the *start* and advantage that semi-mutes have over others on entering an institution for mutes, which is not so much on account of their ability to hear or talk a little, as these are no mental advantages, but mostly from their having had some *early* schooling, and on this account enter at once an advanced class and sometimes the high class. This is also so with all who have been more or less to day-schools or have had several years of private instruction.

' 4. It tends to expand and ennoble the mute's better nature, and increase his knowledge and experience of the world, men, and things, by daily observation at home, and while going to and returning from school, and in the discharge of his varied home duties.

' 5. It gives the mute more *self-reliance*¹ and more *business push* to earn his own living, which is so often lacking in mutes educated wholly housed up and away from home. And it teaches him what is justice and the rights of man, and that others have rights, &c., as well as he; thus teaching him to regard and respect the claims and rights of others; and to curb his pride, *conceit*, and *educational arrogance*.

school fund for day-schools is saved in turn in special appropriation to the State institution. And the same is so, if the State makes special appropriation for the day-schools. For it is only a different way, which amounts to the same in the Ledger, but gives the mutes a better education.

¹ The Massachusetts State Board of Charities says that children brought up in *asylums* and *charitable* institutions DO NOT LEARN SELF-RELIANCE, and that however good situations are procured for them on their becoming of proper age—graduated—to go out into the world, sooner or later they are almost sure to be found in some charitable institution!—in fact '*institutionised*'!!—Small *manual* schools teach self-reliance and tend less to institutionisation.

‘ 6. It *forces* his parents, brothers, sisters, relatives, and friends to learn to talk with him in *his own language* far better than when he is educated altogether away from home. This is of vast importance to him. And it is far less troublesome for relations to learn to talk with the mute by signs than it is for him to learn articulation! *A fact!*

‘ 7. It builds up better physical health and makes him stronger and more robust, with less tendency to consumption, which is often the result of long confinement to rooms and limited yard range, and which has broken down the health and shortened the life of many a promising mute boy and girl; for which an education ever so good never compensates. Parents having their child boarding at home with them while young, or between six and sixteen, can doctor and care for it while sick, and are not annoyed by anxiety and uneasiness about sickness and epidemics like those whose children are away from home when sick, or with others who are sick with some violent or contagious disease. Among these are the *sore eyes*, so *common* in all institutions, among little children, and which is the great enemy of the deaf-mutes, but which is rarely known in a mute day-school.

‘ 8. The chances and prevalence of evil, or the “epidemic of wickedness,” is far less, if not one hundred times less, among day-school pupils than among those of a boarding-school. In day-schools the company and familiarity of good children with the evil and vicious ones is only for a few hours during the day and *never at night*, the evil hour to man. Children well guarded against evil and bad company, and taken good care of, especially at night, will come to manhood and womanhood with better morals than all the lectures on morality and sermons on religion put together can do for them without this moral care. Children, like animals, need no reasoning but *forcible restraint* from evil, and must be compelled to do right, until their moral character is well formed, developed, and matured. No one can do this so easily and so well as parents—at least, not with those under sixteen. Our stress upon morality may seem too strong, but we

must remember that it is the GREATEST *need*. An educated man without good morals is an evil and a curse to society, while a good moral man without an education is a blessing. It is the latter and not the former who deserves, and can make the right use of, an education.

‘9. It gives the mute a larger circle of acquaintance among oral people at home, and this prevents the excessive clannishness so prevalent among mutes educated wholly from home and the world. The larger *familiar* acquaintance the mute has at home among his parents and neighbours, the less apt is he to become dissatisfied with his home life and to wander off among strangers.

‘10. It prevents the parents from being *over-indulgent* and *foolish* with and about their mute child, to a great extent. Absence tends to lax requirements in duties and morality by parents on the return of an absent child, and allowance and indulgence that are wrong and injurious are permitted. But when a child is educated near home and boards at home while young or under sixteen, the parents see the ignorance and gloom of their child’s mind daily dispelled, which *disarms* them of their *excess* of sorrow and pity (which is worse than not quite enough of it) for their child’s misfortune, and causes them to treat him on an equality, as to duty, morality, *work*, &c., with the other children. A mute does not need pity, but a good *domestic and moral training* as well as a good school education, instead of pity, indulgence, and lax requirements.

‘If a mute’s education is begun when he is six years old in a day-school, and he is kept there till sixteen years old, and then sent for five years to a *Mute High School*—a separate and distinct school from the primary, not a high class of it, nor in any way connected with it officially or otherwise, nor on the same plat-location—where the SCIENCE of manual labour, trades¹ best suited for boys, and gardening, fruit-culture, &c., and culinary affairs—*household science*, &c.—for the girls, are FULLY AND

¹ Only boys of good mechanical talents should be allowed to learn a trade. And they should be at least fifteen or sixteen years old.

THOROUGHLY TAUGHT as well as advanced studies, would he not get in these *fifteen years* of schooling a pretty good command of written language, and that too by *signs*, as well as a good education otherwise? And if to this he could add a full *Mute College* course (six years) would we not then have mutes of still broader views and more extended culture than now? Surely we would; for is not the narrowness and conceit of many of our mutes owing much to the too brief schooling and too lax moral training in their primary course?

'Times indicate a radical change coming. We fancy we see rising o'er the mountain-tops of error and misapplied philanthropy the morning star of a better day for the misunderstood, abused, and illy-educated mute; and that in the near future "the *many*" instead of "the *few*" will attain to a high degree of intelligence, in scholarship, science, and morality. We ask the prayers and aid of all good men to the end that God will *bless and prosper the deaf-mute schools*, and speed the day when *all mutes shall be as well educated every way as any one.*

'*Remarks.*—The MS. of this pamphlet was written some two or three years ago, long before we knew anything about Prof. A. G. Bell's day-school views. The MS. was given to the printer in March 1884.

'The good points of Prof. Bell as to day-schools *v.* institutions seem to be anticipated in this pamphlet. But it seems that the author's *personal experience with deafness, articulation, signs*, and over a quarter of a century's experience as a teacher of the deaf, against Mr. Bell's *inexperience in deafness, or signs*, or what it *actually* is as to *learning articulation without hearing*, saved the author from Mr. Bell's extreme views of articulation.

'While the author has written strongly in favour of day-schools, he wishes it distinctly understood that he is not a puller-down, but an advocate of progress—advancement. He believes it absolutely necessary to have State mute boarding-schools for the mutes of villages and those scattered over the country. But his own sad experience in an institution life, and a long business and social relation with the graduates of large and small mute

institutions, forces him to conclude that the small institutions fare generally the best; and that these State schools should be more on the industrial plan, where farm-work, gardening, and fruit culture are the leading features outside of the school-room, and the science and art part of these are taught in earnest. These, the most healthful and independent pursuits of man, and in which deafness is less a bar, if any at all, than in the trades and other pursuits, are not taught as they should be; and too much stress laid upon trades. A good mute who is a *good* farm-hand has far less trouble to get work and to get along than a mute with a trade, because deafness is not so much in the way with the former as it is with the latter.

‘ But for large cities the author believes the city schools should have a deaf-mute department with “ a special teacher in charge ” well versed in the mute’s own language—*signs*, with a high class boarding-school in the suburbs where trades can also be taught for the city boys. But the day-schools cannot be in the same room with the oral children. A small, separate room for such is necessary, the same as they *already* have in Chicago, Cincinnati, and St. Louis.

‘ These have maintained a harmonious connection for some ten years! And that too with excellent results, with none of the imagined disagreeableness, &c., between the oral and deaf children that institution folks fancy there would be, being also favourable for the development of character, business tact, self-reliance, &c.

‘ One of Mr. Bell’s critics does not meet the issue by telling all about the attempts and failures of day-schools in Europe! This is *America!* not Europe.¹ Besides, these foreign day-schools for mutes were schools by themselves, and not *departments* to a school system like our great common school system. Many of them were started in early days when people did not *demand* schools for children—not even for oral children, much

¹ A brother critic uses this same foreign argument to prove the contrary! thus stabbing one another with a two-edged sword, instead of standing united on the argument.

less for the deaf—as they do in this age, and especially in this great country.

‘There is another point his critic overlooked, and that is, that all or most of those foreign day-schools used the articulation system only, instead of the “combined.”

‘In this country we believe that the *eclectic* or *combined system* in the mute school *department* of the public schools will meet the great need of mute schools near home, at least for the present age. This American *eclectic day-school* system is the one used in the Chicago Mute Schools. Thus Chicago takes the lead.

‘Mr. Bell’s critic puts stress upon the idea that institution pupils are at home three months in the year while going to school, as if that was sufficient *home life* for a mute! He knows, we suppose, as well as any one, that if it was three months instead of seven, *away from home* every year for ten years, between the ages of ten and twenty, it would spoil most any oral child as to *home life* and *home ties*, &c. We venture to say he himself would not care to try the experiment with his oral children, if he has any, much less with an *unfortunate* child, if he had one.

‘Another objector admits all that Prof. Bell says about *home ties* and *home influence*, but says “that not all homes are what they should be,” therefore the mute should be taken away from its mother and home! If so, why not take away all the other children too? If the institution cared for the mutes till death, it would be less objectionable. But it does not, and after the school course is run it returns the mute to his humble and “*ought not to be*” home, to stay there! But being raised, by an institution life, *above* his parental station, he soon becomes dissatisfied with it, and then commences a life of discontentment, which often ends in something worse, such as travelling from place to place, begging, visiting and hanging round saloons, pool-rooms, base-ball grounds! Because of no home and no work? No; because home life is “too lonely”! too “work much”! &c. Parents are too lax with them, or have lost their

control and influence over their mute child by long absence from home. A city daily paper went so far as to state that all the educated mutes in the city gambled, because so many of them were seen so often in pool-rooms, and that they were beer-drinkers too, because they were often seen congregated in saloons! And he might have added, with much show of truth, that they always (?) have beer at their picnics, dancing at their sociables, and wine at their parties! Would not this have been too true? Are these parties as they should be? Should not such be the exception instead of the rule? Does not this reflect severely on institution life? We beg, in the name of all that is sacred in home ties, all that is good in morality, that the institution folks look more closely to the *social and moral habits* of their charge, and not trust altogether to chapel service, so that their graduates will be more like the day-school pupils, who stick more to home and home duties, &c., even if many of these homes are "not what they should be." Remember that Providence rules and not man, or else even these "should not be homes" would not exist. And we would kindly suggest to parents that it will be well for them to see *where, how, and with whom* their mute spends his idle time.

'To expect these institution children *not to become inflated with pride and arrogance from the effects of fine buildings, nice surroundings, and a domestic life of comfort and ease* not always found in the homes of the wealthy, is expecting entirely too much from poor human nature. It is said, "put a horse in clover, and he will kick," thus being *less useful and more dangerous*. Is not this so of man, and especially of children, particularly when gathered into "a great crowd"?

"*Seven children*" are considered to be a *full family*, and all that a man and wife can raise as they *should be*; and that "twelve children is *too many*" for any man to care for and raise right. If so, what is the law of ratio or the largest number of deaf-mutes (who *need so much and constant personal attention*) that can be in *one school*, and be *cared for, taught, and trained* as they *should be*?

From Pamphlet No. 2.—‘Are Signs or Articulation the best Means or Channel of Instruction?’ ‘By an Old Teacher who was himself taught both Articulation and Signs, and KNOWS from personal experience and long observation which system is the BEST IN THE SCHOOL-ROOM.’

‘By whose authority do the oral people presume to speak and *dictate* to the deaf and dumb? Who gave the oral people exclusive authority to sit in judgment on the deaf and dumb without their consent? Have the deaf and dumb no voice nor rights that the oral are bound to respect? Why are intelligent deaf-mute teachers not consulted as to the needs, &c., of their people, even at teachers’ conventions? Are they *dummy-numps*? or human-educational chattel?’

‘Is “the pure oral” method a jargon, and gruntal intonation of vocal sounds, or an easy, clear, and distinct utterance—a mastery of vowel and consonant sounds?’

‘Teaching the deaf and dumb to talk is *not* educating them at all. If it was, why do those children who can hear and talk need any schooling, even when they are splendid talkers?’

‘True, one must have a language whereby to be educated. But it must be his mother tongue; and if this is impossible, then the next, or the one the most EASY to learn and to remember, and *easiest and most fluent to use*, with the least possible mental *strain*; and not the driest and hardest. If so, why select or elect articulation, which to the deaf and dumb is not only foreign, but UNNATURAL and exceedingly hard and dry, taxing his memory ten times more than the driest and hardest dead or foreign language does the oral student? The sign language is *easier* to a mute than the mother tongue is to the oral child!—it is, as it were, HIS MOTHER TONGUE! Though a mute child, uneducated, knows but little and uses but little of the sign language, yet he takes to it as easily and as naturally as a duck to water; and in a little while, at school, gathers it up with such ra-

pidity and *avidity* that he often astonishes his teacher with his accuracy and fluency in its use. He often surpasses, as a master of this language, the very best teachers of it among teachers of mutes who hear and speak!—thus opening wide the door to his mind whereby the teacher can readily talk with him on every subject, even on abstract ideas, &c., as though he (the mute) had command of a spoken language! And this is accomplished in an incredibly short time; thus losing but little time from the school-room studies, in acquiring a language that to him is as easy as the English is to an Englishman, or French to a Frenchman. Yea, more so; for the mute is often his own instructor in the language of signs, and sometimes the teacher of it to his teacher! So simple, easy, *natural* and *philosophical* is the language of signs that you can tell a mute child a pretty good story of a “cat and mouse” in signs almost the moment he has learned the signs for *cat* and *mouse*; and that, too, before he knows another word. This cannot be done in any spoken language to those who can hear and talk, much less to those deaf and dumb by articulation. These are *facts*—facts that we not only believe to be true, but *know* to be true from our own personal experience and observation among mutes for over a quarter of a century as a teacher.

‘Here we could stop and rest upon these facts, and defy the world and a thousand *Milan Conventions* to disprove them, and prove, not by resolutions but *by facts*, that articulation is *inferior* to signs as a means or channel whereby to *educate* the deaf and dumb,—not two out of ten, but nine out of ten.

‘The sign language is so new and strange to many that we feel constrained to further remark upon it, for the special benefit of the parents of mutes who should fully know its merits and claims; and fully impress upon them these claims and merits, and that teaching the deaf and dumb to talk is *not educating them* any more than the learning of a foreign language by a vocal child is educating that child—at least, not as he should be educated on the start.

‘The *art* of speaking by arbitrary rules, without sense or

sound,¹ is not and cannot be the natural and proper channel through which to EDUCATE the deaf and dumb. It is more of *an accomplishment* than a channel to his mind. In this respect, we are *not*, and *never* have been opposed to mutes learning articulation, or any other accomplishment that will *embellish* their education or mind; as it is to them what music or a foreign language is to the oral student. This and nothing more. But what we do oppose is the unjust and "cruel"² proceeding of FORCING a mute to learn articulation *before he is educated*, and the still worse policy of attempting to educate him by it only. That which severely taxes the mental powers and takes the strength of mind and memory *too much* from ideas, &c., is surely not a good thing to study while being educated. Language is not the *chief* thing to life and action, but *intelligence, good ideas, good judgment, &c.*, are; and these should *always* take the *precedence* of a foreign language. Knowledge, not language, is power. Ideas *first*, language *last*.

'To a mute, spoken words are soulless as well as soundless, and do not and cannot convey the nature or meaning of an object or idea in their chirographical construction or mimic sounds, while SIGNS DO! Signs to a great extent are their own interpreters! There is no spoken language that does this. If not, and signs do and are so easily acquired and readily understood by mutes, then why, in the name of common sense, reason, and justice, attempt to educate the mute by prohibiting the use of signs? Why deny to him an *easy* and *pleasant* road to education? Why repeat with an unfortunate mute the foolish idea of the long-ago college authorities, that "Greek and Latin is the best *education*" a child could have?

¹ The committee of the Chicago Deaf-Mute Day Schools, in its Report for the school year ending July 31, 1881, in speaking of the progress of the mutes, says: 'The wonder, however, is not that as a class they accomplish so little, but really that they accomplish as much as they do in getting command of a language based upon *sound* which has *no sound*, nor sense in its articulate sound, to them.'

The progress referred to has been through *signs* as the means of instruction.

² See article on lip reading in *Am. Annals for Deaf and Dumb* for 1883.

‘AFTER a mute is educated, or after he has a good start in knowledge *via* signs, he then, and *not before*, may be taught articulation, as an *accomplishment*. He can then, and more willingly, more easily, be taught it. For then he often has a *desire* to learn it. “A *desire* is half-way.”

‘In none of the sign schools are the mutes *prohibited* from learning to talk all they like, but rather encouraged to, while in the articulate schools they are FORBIDDEN to learn or to use signs, and are reprimanded if they break over this injunction! The plea that signs hinder a child from learning is not true. This is a thing we never knew in a single case in all our long intercourse with them,—a thing we cannot account for.

‘Most mutes who have learned both signs and articulation prefer to use signs. This being so,—and it is, so far as we have observed,—is it right to keep signs from them? Signs, we believe, are the great Providential compensation to a mute for the loss of hearing and speech—and a splendid compensation too, as nine-tenths of the mutes, if not every mute, can testify. Deny him the use of his own language, and you render his life sombre, solemn, and desolate. If you want proofs of these statements, go visit mutes who are married, or gathered together at parties, and see for yourself who are the most lively, cheerful and intelligent,—those who have been educated by the sign system, or those educated by articulation only and who know no signs. What! though Providence stopped up my ears, tied my tongue, for some wise purpose, you, a friend (!?), would tie up my hands and send me along down the long journey of life sad and solemn, with only the *artificial* light of the articulate-lantern to guide me, in order that I might always, for *your selfishness*, remember to say “papa” and “mamma”—to talk parrot-fashion—rather than that I should not be able or forget how to say these, though I became ever so wise, happy, and useful in an unbroken silence, by the beautiful and effective sign language!

‘If we write in rather too severe a strain, remember that we are the victim of the attempt to educate us by the oral process,

and that we are not pleading for others in what we have not had actual personal experience, but *vs.* a system in which we have had sad experience. Nor is it so much what the Gallaudetts, the Peets, the Jacobs, and Brown, Williams, Wilkinson, Fay, McIntire, Gillett, De Motte, Noyes, Swiller, and many other staunch friends and defenders of the sign system say, that we are thus urged to plead, but from the fact that the deaf-mutes *themselves* all say it is the best, who surely are better judges of what is the best mode of expression for them, than those who never were dumb, judging from their volubility in what they have no personal experience of; though they seem to be deaf, as they seem not to hear the facts; yet they have no experience in deafness physically. Why any one with common sense can contend against signs in the face of all these facts we are at a loss to understand on the grounds of benevolence, common sense, and *education*.

‘ If signs were as hard to teach as articulation, and as unpleasant and as difficult for mutes to use, and had no advantage in conveying the nature, meaning, &c., of objects, we surely would be the last one in the world to write thus. The articulate system would in that case stand on equal grounds with it. But as articulation is hard to learn and unnatural, it can NEVER be the best method of instruction. We should remember that the learning to talk is one thing and education quite another; and that it is not the ability to communicate with others orally that mutes so much need as a good stock of ideas as to the world, men and things, which can be given mutes by signs in far less time (some say in one fourth of the time) than by articulation. If so, why force a mute to take the *longest, hardest and driest* road to knowledge, *via* articulation, instead of the shortest and easiest, by signs? Why tax his memory on the start with that which he should learn last? Do we teach oral children Greek or Latin, or a foreign language, before they are educated in their own? NEVER! Would not such a foolish course tend to overtax and weaken their memories, and *hinder* their acquisition of knowledge?

‘But when a mute is wholly or half educated, and is fourteen or sixteen years old, and is able to stand the *severe extra strain* on his memory, he can begin to learn to articulate. In this normal order of things we are as strong a friend to articulation as any one can be who is not blinded by false ideas or prejudice. Had the friends of articulation gone to work on this idea, and opened their schools to mutes who had graduated from the sign schools, *desirous* of learning to talk as an accomplishment, the same as oral children do about music, they would have started right, and would have met with no opposition from the sign schools, and a great deal less from the mutes themselves. They would have secured the patronage that is now given to the articulate department of the sign schools, which would never have been opened, perhaps, had it not been for the wrong or extreme course pursued by articulate schools.

‘If the oralists would confine themselves to teaching the pupils to articulate *common* words of every-day life in the common way of people, the same as the oral teacher in the oral department of mute schools, and leave school studies to the sign schools, they would be far more successful and do more good.

‘To master common words, pronounce, and to be able to read the same on the lips of most people, is a task severe enough at all times on the mind of the pupil at the time. As learning to talk is not education, it therefore is a special or particular *art*, which requires a constant and close attention, for the time being, to master.

‘The moment we undertake to divide the pupil’s attention while learning to talk by teaching the sciences along with it, we retard the progress in articulation and waste the pupil’s time in learning words used in books that are not common, and which the deaf often soon forget because so seldom used by the people. For it depends upon daily practice at home that enables a mute not to forget how to pronounce words learned.

‘There are, no doubt, some semi-deaf, especially those who have become more or less deaf *after* ten years of age, who could be quite well educated by the “pure oral” system alone. But

a system that embraces both articulation and signs would be the best, even for these. For when they fail to "catch" the teacher's utterance or words, or pronounce incorrect, &c., signs would instantly give them the right word or words, and aid them to pronounce more correct. This was so with ourselves, and other semi-deaf said it was so with them.

' We now come to what we consider the best social point in signs and the poorest in articulation, and which is "cruel"¹ in our friends as well as a great bugbear. We mean the objection to signs as leading to clannishness among mutes: and that on this ground, shortsighted people say signs should not be learned. And that articulation without signs was the way to "*restore the deaf to society*," which is "a nice thing on paper," but not true in the full sense in reality, because the deaf are *still deaf*. Though they learned to talk ever so well, it is not so much what the deaf say, as it is what the public want to say to them! —as people want to do the *talking*, and want *you to listen*. If you cannot listen or hear because deaf, then the people have little social interest in you. "A good listener" is a good friend, but a poor listener is not a desirable friend. Now, as these are stubborn facts, even with the best of people, what becomes of the restoration of the deaf to society?

' *We*, with all our fine *articulate powers*, are not on social equalities with those who hear. And why not? Simply because we are still deaf, and therefore barred out, because we cannot hear, and that, too, notwithstanding our good speaking powers!

' But in the companionship of our deaf and dumb wife, and all our mute acquaintance, we stand upon an equal footing, because deafness is *no bar* to the language of signs. As it is a sort of an every-day theatre, it makes life bearable because it transcribes nature so full and well that much of gloom and loneliness is driven away. For he who walks with nature, walks near God. And as signs bring one *closer* to nature than spoken language, he must in the very nature of things live a life less

¹ A writer in the *Annals for the Deaf and Dumb*, for 1883, on Lip Reading so branded the exclusive articulation system.

lonely and less cheerless than he who is deaf to all the world, but knows not nature's beautiful language of signs. For, is it not in signs that all nature speaks, and so spoke to Adam long before speech was developed?

'Give an *ignorant* deaf man hearing, and that moment he is the equal of any one, and is *talked to* and treated as a man. For his hearing has you by the nose, so to speak. If you slight him in the least because he is not well educated, you do so at your social peril.

'Give speech, even perfect speech, to the deaf man who is well educated—yea, a classical scholar—yet he is "the deaf man," "the dummy"! You may be able to hear him well, but because *he is deaf* you are *brief* in your talk *to* him, and often say nothing *yourself*. And you speak *less* to him when in company than when behind the barn. And why? Simply because *he is deaf!* Do you fancy he does not *see* and *feel* this *brevity*?

'Is not this a universal and stubborn fact? And has articulation restored him to society in the face of this fact?

'Can a deaf man with perfect speech be a society man fully and freely? We know of a number of very intelligent and highly respected semi-mute ladies and gentlemen, who are treated with much silence in society simply because *they are deaf*. In a social gathering, the company of even a person hard of hearing is avoided as far as practicable without causing him or her to feel slighted. Why so? Because of an inferior social relation? *No!* but because he or she is *deaf*. Ah! it is this everlasting deafness or want of hearing that plays the mischief.

'And as the wise seek the society of the educated, the rich the society of the wealthy, the poor those of like condition, the spiritualists those of like belief, the Methodists seek out and associate *mostly* with Methodists, and so of the Presbyterians and all other classes of people. If so, why not allow the deaf to associate with the deaf? You *never* condemn this clannishness in the former; why do you in the latter? Simply because you are liberal-minded and charitable with the former, but *narrow* and *uncharitable* with the latter! If this touches you to the

quick, let it do so and burn you till you are just, for we have been the ones insulted, lo! these many years, and hope and pray that these words may wake you to the *wants* and *wishes* of THE MUTES, and less to those of your own, in regard to a people whom you want to unclan.

‘Are deaf people devoid of modesty and sensibility?—No! This causes them to get out and to keep out of the way—to sit in corners or on a back seat.

‘Why do deaf people *prefer* deaf people for companions? Is it not because of like conditions—*equality*? If true, why deny them this *full companionship*?

‘As a deaf man spends his idle time mostly by himself or in company with those like himself, why not allow him the fullest of this narrow social enjoyment, by enlarging it, and by permitting him the use of his own language—signs—as it is by *this*, and not by articulation, that he *loves* to talk to and be talked to by those who are deaf? We are not pleading against articulation, for it is *useful*, but we protest against the iron-jacketing of the deaf with restriction to articulation alone, or prohibiting their making use of signs. For they will use signs in spite of your rule, behind the house or when out of your sight, and thus practise deception—the first step in immorality!

‘Is there not something radically wrong in that system which must needs put a muzzle on the deaf to prevent them from using signs?—the language of nature, which they love so well that they instinctively learn it with little and often with no instruction!

‘Superintendent Ely, of the Maryland Mute School, in his Report for 1881–83, says:

“It has been urged by extreme advocates of articulation that pupils cannot be successfully taught in schools where the sign language is used. Our experience disproves this conclusively, and also shows the great value of the sign-language in stimulating the minds of the children, and *preparing them to receive more readily instruction in speech.*” [This is the belief of ALL teachers in mute institutions.]

‘Were the articulate schools places for the deaf to learn to *talk only* (and that is all they should be), and not a school of learning, there would, no doubt, be a reason for forbidding the use of signs by the pupils. But if in teaching in English, grammar, or any science, you have a class who are Germans, or who understand that language better than English, and your explanation happens not to be clear in English, but would be in German, you would not be wise not to speak so, if you could, for the time being; and a tyrant or tyrannical not to allow your pupils to reply in their native tongue when they found they could not do it in English. Hence those teachers of “French and German” who undertake to teach English to these foreign people are the best teachers when they can speak these languages as well as the English. For they make the foreign language the “*stepping-stone*” to the English. Just so with the deaf—we are *obliged to use signs* and to allow them to use signs in order to get them to rightly understand us and we them, so as to make the best progress possible in school studies.

‘Is not lip-reading, or the watching of the mouth of the speaker by the deaf, a vast machinery of “guess-work,” guessing at the *tens of thousands* of words, more or less differently pronounced by a great many people, even by parents, brothers, sisters, and friends? And with men who have moustaches the feat of lip-reading is not only more difficult, but too often *impossible*.

‘Is it not a fact that articulation teachers only can talk to their pupils best, while others, even parents, have more or less difficulty in making their child understand them? Were this not so, the articulate system would be better than it is. But so long as people speak *differently* and *indifferently*, it can only be an ACCOMPLISHMENT, but cannot compare with signs at all as a school-room medium between teacher and pupil.

‘He who admits nothing, claims too much to be just. Therefore, the pure oralists are not just, for they admit nothing as true or useful in signs, the universal language of nature, particularly that of those who cannot hear or talk. He who

admits what is true on his opponent's side, is *just*. Therefore the manualists are more just and wiser than the oralists, for they admit that some mutes can be taught to articulate to a certain extent, and a *few* others quite well.

‘Why do not the articulate schools add a sign-department to their schools, like the sign-schools have done (in adding an articulation department), and thus give their pupils a more *intelligent* education, and thereby get more scholars and do more good? Is it not because the sign-department would soon become the largest department, and many of the articulate teachers be obliged to learn signs or else give way to those versed in signs? Would it not look wiser and more philanthropic for them to give the sign system a *full* and fair trial in their schools, and then, if found not to be of any use, nor to be what is claimed for it, to discontinue it? Would they dare to try it just a *little* while, and on a small scale? If not, why not? Ah! look behind, and you may see why.

‘He who knows *both sides*—the practice, as well as the theory—is the best judge. Who, therefore, is the best judge, he who has *fully* and *fairly* TRIED *both* signs and articulation, or he who has tried articulation only?

‘How many oralists are there who understand signs well, and yet prefer the oral system as the best *schoolroom* language-medium by which to teach the deaf to read, write, and cipher, and to learn geography, drawing, &c.? None! We have known cases of oralists coming over to the manual system, but not a case of a manualist going over to the oralist. People don't go back on Providence—nature, but sometimes they do on *art*.

‘There are a great many manualists (sign-makers) who have taught or can teach articulation, but prefer the signs as the best channel to teach mutes to read, write, cipher, the study of geography and all other school studies, including morality and religion.

‘“Visible speech,” with all its merits, is not of so much use to the deaf, who read so well what their teacher says that way, because, as it would seem, the common people do not speak

altogether that way. It is *an unusual* way of speaking, and the deaf who talk this way attract attention at once, and everybody within hearing stops and stares at them! This cuts them to the quick, as they are more sensitive than other people because deafness makes them so.

‘ You can satisfy yourself by sitting a little out of the reach of the voice, and watching the motion of the lips of people. You will find that many people do not open and shut their mouths and move their lips exactly alike in pronouncing the same words, and you, like the deaf, soon get lost and bewildered. If the vowels had but *one* clear and distinct *lip-motion-sound*, and each and *all* people pronounced or *lip-uttered* words *alike*, the deaf would have far less trouble.

‘ Articulation must be confined to the common way, such as the people use, or else be of little use to the deaf in business life. Otherwise the deaf will miss and misunderstand much that people say to them, no matter how well they learn to read the lips of their teacher, who speaks not as common people do.

‘ When our State schools are reduced to a *normal* size (like the model one in Europe, where not over twenty-five pupils are permitted to be collected together), say not over 100 pupils in *one* locality, giving America about 600 schools instead of only about sixty, we will then be able to show a standard of excellency in *language, science, art, morality, industry, and trades*, that is not now attained, and impossible in over-large schools. Enlarge the little oral schools to 300 and 500 children of all grades of mental capacity, and where then would be their *few* excellent successes? The oral schools have been very fortunate in keeping their schools *small*, while the sign schools have been unfortunate in being permitted to grow entirely too large, and thereby lessening the individual attention that deafness makes absolutely necessary with the deaf.

‘ We have not said all we would like to, but we hope we have satisfied inquirers. We close by re-repeating that articulation is a nice accomplishment to those who can master it, but signs are the best medium of educating the deaf.’

From Pamphlet No. 3.—‘Facts for Parents of Mutes, Ideas for the People, and Suggestions for the Law-makers.’

‘The trustees of the various institutes should be composed in part of mutes, selected on account of their pre-eminent qualities of good sense, good judgment, and sterling honesty, for such people are much better acquainted with the needs of their own class than those who are able to hear, and who are, under the present system, appointed as trustees, but who are too often entire strangers to deaf-mutes and their peculiarities of language, &c., and, in their ignorance of such, are forced to rely upon the explanation and dictation of interested and sometimes selfish parties.

‘As the superintendent is generally, if not always, present at the meetings of the board of trustees, he can, and should, interpret the proceedings of the board to the mute members. In fact, the importance of having deaf-mutes and semi-mutes as members of such bodies is so great as to justify the employment of an impartial and faithful interpreter, in case the superintendent cannot perform that duty.

‘We do not see why deaf-mutes with the intelligence, liberal-mindedness, and mature judgment of John Carlin, M.A., H. C. Rider, Editor of the *Deaf Mutes’ Journal* (N.Y.), with many others of equal honesty and intelligence scattered all over the Union, should not be on the board of trustees of their respective State schools for mutes.¹

‘We firmly believe that with such men, from among the deaf-mutes, on the board of trustees, deaf-mute education would be generally better promoted, many abuses prevented, and many wrongs redressed; and the general management of these institutions run less in the interest of speculators, selfish and individual interest, and more in the moral, intellectual and industrial interest of those for whom the institutions were built.

‘PHILIP A. EMERY, *Principal.*’

¹ Good sense, good general judgment on all business matters, good understanding of what a deaf-mute school should be, should entitle any mute to a trusteeship, and that, too, even if he is not a good English scholar. For, pray, how many of the oral people who hold such positions are good scholars?

38. CENTRAL NEW YORK INSTITUTION, ROME, N.Y.

E. B. Nelson, Principal, expresses no opinion upon this question.

39. CINCINNATI PUBLIC SCHOOL.

A. F. Wood, Principal, expresses no opinion upon this question.

40. WEST PENNSYLVANIA INSTITUTION.

'My conviction is that the best method of instruction for the large majority of the deaf is what is usually termed in this country the combined method. The use of signs, in my judgment, cannot be discarded entirely; in fact, to a limited extent they are absolutely necessary; with rare exceptions, to the successful instruction of the deaf; and yet they should be employed as little as possible. Deaf children should be taught the English language from the very beginning. They should learn to use the manual alphabet at once, and be compelled to spell or write, and not be permitted to use the signs in the schoolroom.

'JOHN G. BROWN, *Principal.*'

41. WESTERN NEW YORK INSTITUTION.

Z. F. Westervelt, Superintendent and Principal. No reply to circular received to date, June 2, 1888.

42. PORTLAND SCHOOL, MAINE.

Ellen L. Barton, Principal, expresses no opinion upon this question.

43. RHODE ISLAND STATE SCHOOL.

'I thoroughly believe in speech reading, . . . in the constant drill of the elements and combinations, but not to the

exclusion of words ; for instance, if in an articulation exercise we should strike upon the combination *shoo* or *to*, I should stop and explain to the pupil that they are the same ; that is, have the same sound (requiring the same muscular action in their formation) as *shoe* and *toe* ; and I should show the pupil the objects which the words represent ; in short, give him as thorough an understanding of the phonetic word as possible. Then he has one, yes, two words for his vocabulary. We go on building in this way until in the ten months (one school year's time) the new beginner, if he has ordinary intelligence, will have a list of from 30 to 60, possibly 100 words. While all the while he adds a little and holds on to the building materials, all the time becoming more and more proficient in their adaptation and use. This method differs somewhat from the Northampton method, and altogether from Mr. Greenberger's *latest*.

‘ ANNA M. BLACK, *Principal*.’

Vide Reports for further information.

44. ST. LOUIS DAY SCHOOL.

D. A. Simpson, Principal. No reply to circular letter received to date, June 2, 1888.

45. NEW ENGLAND INDUSTRIAL SCHOOL.

Nellie H. Swett, Principal, expresses no opinion upon this question.

46. DAKOTA SCHOOL.

James Simpson, Superintendent. No reply to circular letter received to date, June 2, 1888.

47. MILWAUKEE DAY SCHOOL.

‘In regard to question 4 I have written a brief paper and sent it to the Royal Commission through the Rev. Dr. Stainer, of London, who delivered it into their hands. I did this because I heard that Dr. Gallaudet had been asked to appear before them, and I feared the fact that articulation was taught in America, and that we had pure oral schools, might not come to their knowledge. This paper was written more than a year ago, and undoubtedly is still in the hands of the Commission. . . . Enclosed find the law relating to the establishment of day schools for the deaf in our State, also the amendment. The latter really makes the law of value. The amendment was a part of the law of 1885—that is, of the original Bill—but in order to gain our point we yielded a little to circumstances. We were then enabled to start our Milwaukee school, and in 1887 we obtained what we originally asked for—the 100 dollars per child.

‘PAUL BINNER, *Principal.*’

EXTRACTS FROM THE LAWS OF WISCONSIN.

CHAPTER 315.

An Act in Relation to the Instruction of Deaf-mutes in Incorporated Cities and Villages.

The people of the State of Wisconsin, represented in Senate and Assembly, do enact as follows:—

SECTION 1.—Upon application by the mayor and common council of any incorporated city, or by the president and board of trustees of any incorporated village in the State, to the State superintendent of public instruction, he shall, by and with the consent of the State board of supervision, grant permission to such city or village to establish and maintain, within its corporate limits, one or more schools for the instruction of deaf-mutes, residents of the State of Wisconsin.

SECTION 2.—The mayor of any incorporated city, and the president of any incorporated village, which shall maintain one or more schools for the instruction of deaf-mutes, shall report to the State superintendent of public instruction and to the State board of supervision, annually, and as often as said State superintendent or board may direct, such facts concerning such school or schools as said State superintendent or board may require.

SECTION 3.—There shall be paid out of the State treasury, in the month of July in each year, to the treasurer of every incorporated city or village maintaining a school or schools for the instruction of deaf-mutes, under the charge of one or more teachers of approved qualifications, to be ascertained by the State superintendent of public instruction, the sum of 100 dollars for each deaf-mute pupil instructed in any such school at least nine months during the year next preceding the first day of July, and a share of such sum proportionate to the term of instruction of any such pupil as shall be so instructed less than nine months during such year.

SECTION 4.—The sums to be paid, as provided in next preceding section, shall be audited by the Secretary of State upon the certificate of the president and secretary of the school board and the superintendent of schools of such city maintaining such school, setting forth the number of pupils instructed in such school or schools and the period of time each such pupil shall have been so instructed in such school or schools next preceding the first day of July; and in case any such school shall be maintained in an incorporated village, then upon the certificate of the county superintendent of schools of the proper county, accompanied by the affidavit of the teacher or principal of such school, setting forth the same facts last aforesaid, all of which such certificates and affidavits shall be first approved in writing by the State superintendent of public instruction and the president of the State board of supervision, which certificates and affidavits so approved shall be filed with the Secretary of State, who shall thereupon issue his warrant upon the State treasurer in favour of the treasurer of such city or village, as the case may be, for

the sum which shall appear to be due pursuant to the provisions of this Act; provided, that not more than two-fifths of the amount appropriated by this Act shall be expended in any one county.

SECTION 5.—A biennial appropriation is hereby made to pay the sums which shall each year become due and payable, under this Act; said appropriation shall not exceed five thousand dollars per annum for the years 1885 and 1886.

SECTION 6.—This Act shall take effect and be in force from and after its passage and publication.

Approved April 4, 1885.

CHAPTER 40.

An Act in Relation to the Instruction of Deaf-mutes, and Amendatory of Section 4, of Chapter 315, of the Laws of 1885.

The people of the State of Wisconsin, represented in Senate and Assembly, do enact as follows:—

SECTION 1.—Section 4 of chapter 315 of the laws of 1885 is hereby amended by striking from said section the following words at the end thereof, to wit: 'Provided that no more than two-fifths of the amount appropriated by this Act shall be expended in any one county;' so that said section when so amended will read as follows: SECTION 4.—The sums to be paid, as provided in next preceding section, shall be audited by the Secretary of State upon the certificate of the president and secretary of the school board and the superintendent of schools of such city maintaining such school, setting forth the number of pupils instructed in such school or schools and the period of time each such pupil shall have been so instructed in such school or schools next preceding the first day of July; and in case any such school shall be maintained in an incorporated village, then, upon the certificate of the county superintendent of schools of the proper county, accompanied by the affidavit of the teacher or principal of such schools, setting forth the same

facts last aforesaid, all of which such certificates and affidavits shall be first approved in writing by the State superintendent of public instruction and the president of the State board of supervision, which certificates and affidavits so approved shall be filed with the Secretary of State, who shall thereupon issue his warrant upon the State treasurer in favour of the treasurer of such city or village, as the case may be, for the sum which shall appear to be due, pursuant to the provisions of this Act.

SECTION 2.—This Act shall take effect and be in force upon its passage and publication.

Approved March 12, 1887.

48. PENNSYLVANIA ORAL SCHOOL, SCRANTON.

Miss Emma Garrett, Principal, says:—‘I gather from a hasty reading of an article by Mr. R. Laichley that he suggests (in last number of “Quarterly Review of Deaf-mute Education,” London), establishing day schools. Possibly where he wants to have them they will be practicable. I think the time will come when it will be practicable to have many of them in the United States. I think *present* need is for small oral boarding-schools here. While we have so many sign boarding-schools poor parents, ignorant of *methods*, will let their children slip into them. It was practicable to have a *day* school in large Philadelphia. I demonstrated that. Had eighty pupils.’

The following paper ‘contains much that I would gladly say to anyone studying the interests of the deaf’ :—

Conditions necessary to giving every Deaf Child a Chance to Learn to Speak, &c.

When the glorious Milan International Convention of Teachers of the Deaf, held in 1880, decided by a vote of 160 to 4 that the oral method ought to be preferred to that of signs for the education and instruction of the deaf, and that all new pupils be taught by oral method, it recommended that they

should be separated from the old pupils who were finishing their course by signs and manual alphabets.

I read in report of 11th National Convention of American Instructors of the Deaf in California in 1886 that the following resolution, with two amendments, was adopted:—‘That earnest and persistent endeavours should be made in every school for the deaf to teach every pupil to speak and read from the lips, and that such efforts should be abandoned only when it is plainly evident that the measure of success attained does not justify the necessary amount of labour.’

The amendments to this resolution were as follows:—‘First, that the trial was to be made by articulation teachers trained for the work; and secondly, that such pupils who had sufficient hearing should be taught aurally.’ These amendments were good; but I looked anxiously, but without finding it, for an amendment to the effect that the pupils given this trial should be absolutely separated from pupils instructed by signs and manual alphabets, this being recommended as a necessary condition to success by the Milan Convention.

Believing that it is a ‘necessary condition to success,’ I should have proposed this amendment had I been present at the California Convention. As teachers at the Milan Convention decided, deaf children are not given a ‘chance’ to learn to speak unless they are kept away from signs and manual alphabets while the trial is being made.

I sometimes read in reports of large sign institutions that the small number of pupils they have taught orally compare favourably with those taught in purely oral schools. I do not grant this; but if I did, it would not prove that the same pupils would not do better in oral schools.

Most of our oral schools are in their infancy, and are very small. None of them are large, comparing them with our large sign institutions. Therefore, we must naturally suppose that the sign institutions, being so much more numerous, and, as a rule, so much larger, have a larger number of bright pupils, and a fair comparison cannot be drawn between the few selected

pupils orally instructed in large sign schools and the pupils in small pure oral schools.

The charge sometimes made, that oral schools refuse dull subjects, cannot be sustained. I have never refused them, nor have I ever known any pure oral principal to do so.

A child deaf from early infancy was admitted to my school. He was afflicted with chorea, or St. Vitus's dance, had sores on his mouth and hands, and was exceedingly careless and impatient. He had had some instruction from a sign teacher and some from an articulation teacher. His mother told me they had failed in their efforts. His nervous twitching was so bad that he would sometimes turn around a dozen times before he could look at a word on my lips. His upper teeth seemed almost to cover the under teeth. His hand shook so, that it was with difficulty that he could hold a pencil. Sickness kept him at home a great deal. Omitting time lost in this way, he has been under my instruction about three years. In that time he has learnt to speak about two thousand words, writes quite legibly, and has gained much general information under the head of language and geography lessons. Though he is still very nervous at times, he has slowly but steadily improved physically; and, if he can remain with me as long as sign institutions ask for the education of their pupils, he will have a good education and speak with sufficient distinctness. I tell of his case only in the interest of difficult subjects. Of course it was necessary to give careful thought to the proper treatment of his physical condition while giving him speech, lip-reading, mental development, and writing; and I may add I needed to help him to be morally strong to overcome his extreme impatience and carelessness.

I have had nine years' experience with the deaf, and I consider him one of the most difficult subjects I have ever known.

Dr. Buxton quoted a sentiment of Sir Arthur Helps at the Milan Convention that we would all do well to remember. 'Human nature,' he says, 'is a thing to which we can put no

limits, and which requires to be treated with unbounded hopefulness.'

I have been an advocate of day schools for the deaf. I still believe such conditions are more natural, and that they are better, provided the child has a home within reasonable distance of school, and where parents and friends communicate with it only through speech. When these conditions do not exist the principal of an oral day school is at an immense disadvantage. This also would prevent any just comparison between articulation pupils in a boarding-school like our sign institutions and the pupils in an oral day school, where many of their homes are so far from school as to cause irregular attendance.

If orally taught deaf children cannot be with judicious parents and friends out of school hours, I think they are better off in an oral boarding-school, *provided* they have intelligent attendants out of school hours who are pledged to talk to the pupils, and who hold their positions on condition of their fulfilling this pledge. Thus always being surrounded with talking influences, they will naturally acquire the habit of speech.

It has been said that articulation teaching is injurious to the health of teachers. Facts do not support this statement when the teaching is done in purely oral schools. Special articulation work in sign schools may be unusually wearing. Worry is always more harmful than work, and our pure oral teachers may be sick at heart to feel how few American schools for the deaf employ the methods they believe in. 'Hope deferred maketh the heart sick.'

Deaf children should be early taught to speak. In the future, when their parents are blessed with a knowledge of the truths contained in Miss Mary S. Garrett's 'Directions to Parents of Deaf Children,'¹ they will in many cases begin this work. Until this good time comes I heartily recommend their being placed in moderate-sized oral boarding-schools at four or five years. I say moderate sized, for it seems to me it is im-

¹ See Mary Garrett Private School, No. 6.

possible to give deaf or hearing children the 'mothering' they crave and need in very large schools. Very large schools for young people are sad sights, whether for the deaf or hearing.

That noble and now powerful organisation in many of our largest cities—the Children's Aid Society—is rapidly doing away with large institutions for hearing children, preferring to risk placing poor hearing children in families who are willing to receive a child rather than to surround them with the many evils of life in a large institution. A little child begets love, and in some cases elevates the home it enters in this way.

In conversation with one of the most active workers in the Children's Aid Society—I think one of its projectors—I spoke of the necessity for boarding-schools for many deaf children *at present*. I unfolded the case as clearly as I could to her, and she agreed with me in thinking that a boarding-school on the cottage plan for about one hundred pupils was about the best we could hope to do for the deaf 'at present.' I emphasised 'at present' because the world moves, and what may be the best now may not be years hence.

Many touching stories are told by this Society of the unnatural little children it has found in these large institutions—one of a little girl who did not understand when asked to kiss someone, so completely had this very ordinary expression of affection been left out of her young life. If large institutions are sad for hearing children, how inexpressibly so are they for afflicted deaf children!

We may not look for a deaf child of four or five years to remember or make use of as much as a child of eight or nine would; but those who are taught early to speak will not form so strong a habit of expressing their wants in signs; their voices will ultimately be more natural, lip-reading more true, &c.

In reviewing the work done in Miss Mary S. Garrett's school the past year in her last report, she says, in reference to the *present conditions* by which the deaf are surrounded: 'The improvement in the speech and lip-reading of the pupils which it is the main object of the school to teach is all that could be expected under

the circumstances. Before every deaf child can have the advantage of the best circumstances, almost as great a revolution must take place in the knowledge of those by whom they are surrounded from their birth as took place when the general belief of the world that the deaf are necessarily idiotic gave way a couple or more centuries ago to the knowledge that they are not.

It is known now by some that when every person who has any communication with a deaf child talks to it from infancy on, just as to a hearing child, and never uses a motion, sign, or manual alphabet with it, that the child learns the habit of depending on the lips alone and to understand spoken language readily, and the terrible barrier which makes it alone in the world is removed.

When this knowledge becomes general, and hearing people take advantage of it and act accordingly, then, and not until then, will the oral method be taught under the best circumstances. In the meantime hundreds of deaf children are being sacrificed to the ignorance of those who control them, just as thousands were sacrificed in the old times to the ignorance of the age.

Our pupils improve just in proportion to their several advantages in this respect; the more constantly they are talked with the faster they improve. I have never used any medium of communication with them except the speech and lip-reading they have learnt, and they naturally always talk to me and always understand me; and if everyone else did the same, and had always done so, speech and lip-reading would be easy and natural to them. They need the constant practice which makes speech and lip-reading a habit.

EMMA GARRETT.

49. NEW JERSEY SCHOOL.

Weston Jenkins, Superintendent, expresses no opinion upon this question.

50. UTAH SCHOOL.

H. C. White, Principal. No reply to circular letter received to date, June 2, 1888.

51. NORTHERN NEW YORK INSTITUTION.

Henry C. Rider, Superintendent. No reply to circular letter received to date, June 2, 1888.

52. FLORIDA INSTITUTE.

‘St. Augustine, Fla. : May 26, 1888.

‘DR. A. G. BELL.—Dear Sir,—Am sorry the reply to your circular letter has not reached you. I hope it has ere this. I wrote it and left it on my desk for mailing, and can trace it no further. I will try to answer some of the questions as I remember them. We have 18 deaf pupils. Several of them were over 12 years of age when they entered, but even in this case we are teaching articulation to 12. With 11 articulation is used as a means of instruction; 2 have never been taught articulation; and 4 have been tried without success. Two of the pupils can hear a little (semi-deaf); one became deaf at two years of age; and the other gradually lost her hearing. Cause unknown. We have never made any effort to develop the hearing of these pupils, though I doubt not at least one of them could be much benefited by a systematic course of training. . . .

‘It has been our experience that every deaf child of fair mental powers can be taught to speak with sufficient clearness to be understood by those accustomed to hearing “semi-mutes” talk, if the articulation training begin while the child is very young—say 4 to 8 years of age. But little can be done with children over 15 years of age. . . .

‘PARK TERRELL, *Principal.*’

53. WASHINGTON (TERRITORY) SCHOOL.

James Watson, Director. No reply to circular letter received to date, June 2, 1888.

54. NEW ORLEANS PUBLIC SCHOOL.

‘As to the instruction of the deaf, in order to enable them to be well-educated, self-sustaining, and useful citizens, they should be sent early to school, but not to large State institutions, as home influences and the daily observations of life exert a powerful effect in improving the minds and manners of this class of children. The fact is that all growing children require close watching on the part of their own parents and relatives. Therefore day schools are far preferable to the large State institutions.

‘R. B. LAWRENCE, *Principal.*’

55. EVANSVILLE SCHOOL, INDIANA.

Charles Kerney, Principal, expresses no opinion upon this question.

56. LA CROSSE DAY SCHOOL.

‘I think that much valuable time and teaching force are thrown away trying to teach many deaf-mutes to talk. It is like Gratiano’s “grain of wheat in a bushel of chaff”—an infinite deal of trouble and of little value when acquired. I speak this of the majority, who *never learn* to talk with ease, facility, and pleasure to themselves and others; still I would not cease to try to give all a chance.

‘ALBERT HARDY, *Superintendent of Schools.*’

57. NEW MEXICO SCHOOL, SANTA FE.

‘ I think some of having articulation here, if a good number of scholars can be had ; but, the people here in the Territory being mostly Mexican, speak Spanish, and if their deaf youths be taught to speak in English in this school it would be of no use to them, as they cannot talk then to their Spanish-speaking folks. They generally want them to get education here, especially in the Roman Catholic creed. English is now taught here according to the Committee’s decision. . . . This school is a new one, which has recently become the public property of this Territory. . . . There are now six scholars in attendance here. Two out of the six scholars here are semi-deaf and can speak Spanish, but they are learning English here. Their deafness occurred at the age of ten years. Before it occurred they were taught to speak at home. Two were born deaf, and the rest became deaf during early childhood. . . .

‘ LARS M. LARSON, *Superintendent.*’

PRIVATE AND DENOMINATIONAL SCHOOLS.

1. WHIPPLE’S HOME SCHOOL.

‘ We make articulation a speciality, teaching it to every child who enters school. We find all can be taught to articulate who have any degree of intelligence.

‘ MARGARET HAMMOND, *Principal.*’

2. GERMAN EVANGELICAL LUTHERAN
INSTITUTION.

D. H. Uhlig, Director, expresses no opinion upon this question.

3. ST. JOHN'S CATHOLIC INSTITUTE.

Charles Fessler, President, expresses no opinion upon this question.

4. KNAPP'S INSTITUTE.

Fred. Knapp, Principal.—No reply to circular letter received up to date, June 2, 1888.

5. VOICE AND HEARING SCHOOL.

Mary McCowen, Principal, expresses no opinion upon this question.

The following passage marked by Miss McCowen is quoted from *The New Method* (April, 1888), a paper issued monthly by 'The Voice and Hearing School':—

'Our little three-year-old pupil (supposed to have been totally deaf from birth, and so far developing no hearing), who had never learned at home to speak even the word "mamma," is getting to be a regular chatter-box—not that she has perfect speech, but her voice can be heard every hour of the day in spontaneous baby chatterings, using words intelligently which she has been taught, and day after day gaining new ones. At the same time her voice is losing the screech (no other word expresses the noise) which terrified the neighbours when she first came, and she is also fast forgetting the signs (because she does not need them to make herself understood) which had been specially taught her at home by a deaf-mute teacher. Her parents visited her last month and expressed themselves delighted with her progress in every way.'

6. MARY GARRETT'S SCHOOL.

'Every year that I work among the deaf I feel more and more convinced that if *every* deaf child was guided to speech

and lip-reading from infancy, and carefully kept from motions, signs, and manual alphabets, and allowed *only speech* for all communications with others, that the results would be satisfactory to us and most comforting to the afflicted deaf.

‘We cannot expect the best results unless we use all the means.

‘MARY S. GARRETT, Principal.’

Some of the views Miss Mary Garrett would desire to express will be found in the following article, written by her and published in the *Medical and Surgical Reporter* of June 12, 1886. This is the article referred to by her sister, Miss Emma Garrett, Principal of the Pennsylvania Oral School (No. 47):—

‘DIRECTIONS TO PARENTS OF DEAF CHILDREN.

‘All deaf children whose eyesight is good and who are not idiotic, can, with extremely rare exceptions, be taught to talk and can learn lip-reading, provided their parents, care-takers, and teachers know how to guide and teach them. When parents discover an infant to be deaf, they should continue to talk to it, just as every mother does to a hearing baby when it is learning to talk; she does not use motions to it, because it has not yet commenced to understand her language, but she repeats over and over again to it the pet names she calls it, tells it again and again to “say papa,” “say mamma,” &c., &c., until it learns to understand and then to copy her words. She is keen to discover, encourage, and correct its first attempts at articulation.

‘The attention of the deaf infant should be directed to the mouth with the same persistence, and it should be talked to just the same by every one who is with it. No more motions should be used with it than with a hearing child; its attention should be always guided to the mouth of the speaker and concentrated there. Little by little it will begin to attach meaning to the words and sentences it sees, just as the hearing child little by little learns to attach meaning to the words and sen-

tences that it hears. People almost universally, when they wish to take an infant from its mother, hold out their arms and say, "Come," watching the little one for an indication in its face of its desire to be taken, or to see if it will hold out its arms to come. Thus the child learns the meaning of the word "come," but as it grows older the parent or others simply call it to come, without holding out the arms, dropping the motion as soon as the child understands the word. No more motions should be used with a deaf child than this, which amounts simply to showing the action represented by a word; the words should be indefinitely repeated, that the child may become familiar with their looks on the mouth, while the representation of an action should be dropped as soon as possible, and should never be made without at the same time showing the child the word representing it. The names of objects may be taught with the objects, which is really the way in which hearing children learn them in their homes. We must always remember that when a hearing child is learning to talk its hearing gives it the advantage of every word spoken in its presence, while the deaf child only has the advantage of seeing the mouth of the person it happens to be looking at, or who is talking with it, and this difference must be made up to the deaf child by a great amount of repetition of the words and language we are teaching it.

'Every one with whom a deaf child comes in contact should talk to it and encourage and aid it to articulate. Deaf babies begin to say "Ma-ma-ma" just as hearing babies do, but as a rule it is not encouraged in them; if it were, and the child properly guided to further articulation, it would talk.

'Miss Fuller, Principal of the Horace Mann School at Boston, quotes in her report for 1885 a part of a letter which she received "from the mother of a congenitally deaf pupil, now seven years of age, who is able to use speech and to understand it upon the lips of others to a remarkable degree." Miss Fuller says further that the letter "shows what a mother had done before her child entered school at the age of four years."

'The mother writes: "In trying to recall what Bertha

learned in the first three years of her life, I realise the fact that it was through ignorance of her total deafness that we taught her anything. Thinking all the time that she was very backward in learning to talk, we took unusual pains with her, saying over the simple words that children catch so easily. If we had known at the beginning that she heard nothing when we spoke to her, I am afraid, instead of teaching her what little we did, we should have been discouraged and used signs. As it was, she had learned to speak many words before she entered school. "Papa" and "Mamma" were the first words that she learned. We would say, "Come and see papa," or "Come and see mamma," and at the same time hold out our hands to her. In a short time she learned to recognise us by these names and call us by them. To be sure, the words sounded very much alike when she spoke them, but hearing children often speak imperfectly at first. When she was sitting on the floor, I would say "Up" to her, and partly lift her, so that she soon learned what the word signified, and would say, "Mamma, up." She always lived among uncles and aunts, who have helped us in teaching her to talk. None of them ever used signs with her, but talked as with a hearing child. When quite young she learned to call them by their respective names. If she wanted to go to one of them she was induced to say, "Auntie Jennie," or "Uncle George," before she was gratified. In the same manner she learned to speak the name of any object that interested her. To teach her that she must not play with the stove, I showed her that it soiled her hands, and told her they were "all black." If she disobeyed, she would come to me, hold up her hands, and say "All black." At one time we lived in a house with a family to whom Bertha became very much attached. She learned to call them by name, and when we took her to see them we always asked her if she wanted to go up-stairs. It was not long before she would say "Up-stairs" to us, many times in the day, meaning to ask us if she could go up.

'In this way we did what we could for her until we took her

to school. The manner in which we had begun with her was very kindly commended, and we were advised to continue talking with her and teaching her words, which we have done. None of her questions, and they are very numerous, are ever allowed to go unanswered. We always encouraged her to talk to us about her play and everything that interests her, and try to explain what she does not understand. But our feeble efforts seem like nothing in comparison with what her teacher has done and is still doing for her. We appreciate it all, and only hope that Bertha may long remain under her skilful guidance and care.

‘No one should be allowed to make motions or signs to the child, or to teach it the manual alphabet, as it grows older. It should be strictly trained to depend on lip-reading and that alone. When the child is old enough, it may be taught to write words and sentences as soon as it can articulate them and read them from the lips, but not before.

‘There are no doubt mothers who would be skilful enough in training their children from the beginning so that they would never need to go to special schools for the deaf, but could be taught with the hearing; probably, however, the majority of parents would need to send their children to school taught by specially trained articulation teachers, for a while at least. Such teachers should be equally strict that all communications with their pupils, in classes and out of classes, at the table, on the play-ground, and on all occasions, should be through speech and speech alone. It is the universal experience that hearing children who study French and German in English schools, where all their lessons, outside of these special classes, are recited in English, do not learn to speak these languages. If deaf children are given special lessons in articulation in schools where they see signs and the manual alphabet used constantly around them, and where they use them in the play-ground, at the table, or in their classes, the cases where they become proficient in the actual use of speech and lip-reading will be as rare as of those hearing children who become proficient in French and German under similar circumstances.

‘Children or grown persons who lose their hearing through sickness should at once be trained to read the lips and encouraged to talk just as they did before, and they should as studiously be kept from all contact with signs or manual alphabet as the congenitally deaf.

‘Miss Emma Garrett, Principal of the Pennsylvania Oral School for the Deaf at Scranton, Pa., describes in the January number of the *Annals of the Deaf* for 1886 the case of a pupil of hers. He was a young lad who lost his hearing in May 1885. Under her direction he was induced to continue to talk as before and to depend on lip-reading alone for his communication with others; after spending a very few weeks under her instruction in the autumn, he was able to take his place in the hearing school which he had formerly attended, and all his communication there is through speech and lip-reading. There is a great difference in the aptitude of this class of the deaf for acquiring lip-reading; some seem to be what might be called natural lip-readers, and learn it from their associates simply by watching their lips, while others need training from special teachers. All such persons should, however, train themselves or be trained to depend on lip-reading and speech, and not on writing.

‘It needs very little reflection on the part of intelligent minds to estimate the difference in the life of a person who is able to understand the speech of those around him, and to make himself understood by them, from the life of one who knows only signs and the manual alphabet, which are almost unknown outside of the institutions where they are taught.

‘As there is only one deaf person to every 1,500 hearing persons in our population, it behoves us to help that one deaf person to fit himself for communication with those 1,500. We cannot expect the 1,500 to learn manual alphabets or arbitrary signs to suit the one deaf person.

‘There is a popular delusion that the vocal organs of deaf children are defective; the fact is, that such cases are rare exceptions, and that as a rule their vocal organs are normal. The

articulation of consonant sounds depends on certain positions of the lips, tongue, teeth, and palate. The quality of vowel sounds depends on certain positions of the tongue. Any deaf child who can cry, and scream, and has lips, tongue, teeth, and palate, has the necessary vocal organs.

‘The deaf children are capable of being taught by the *Pure Oral Method*, and the method is a success when parents, caretakers, and teachers know how to apply it. It is possible for deaf born children to learn speech and lip-reading after they begin to go to school, if they have competent teachers; but much time would be saved and far better results obtained if parents would do their part before the child is sent to school.

‘*Great results have already been gained through the Oral Method, and I have no doubt that greater and better results than any already obtained await us in the future, as the method becomes more widely and more strictly and intelligently applied. The oral pupil who has the least amount of intelligible speech and of lip-reading compared with his fellow oral pupils, has just that much advantage over the most expert maker of arbitrary signs and the manual alphabet, which are sure to be as unintelligible to the general public as our speech is to the sign-maker.*

‘*The more perfect we can make the speech of the deaf, and the more skilful we can train them to be in lip-reading, and the greater the amount of language we can teach them, the happier and more independent they will be.*

‘MARY S. GARRETT.’

7. MARIA CONSILIA INSTITUTE.

Sister Adèle, Principal, expresses no opinion upon this question.

8. CINCINNATI ORAL SCHOOL.

Katharine Westendorf, Principal. No reply to circular letter received to date, June 2, 1888.

9. CHICAGO CATHOLIC SCHOOL.

No reply to circular letter received to date, June 2, 1888.

10. MISS KEELER'S ARTICULATION CLASS.

'I have a private class for deaf-mutes taught by the same system as that used in the New York Institution for the Improved Instruction for Deaf-Mutes, in which I was an instructor from 1873 till 1885.

'SARAH WARREN KEELER, *Instructor.*'

11. CINCINNATI CATHOLIC SCHOOL.

'As I have been in the profession only since last September, I do not feel warranted in making any observations. Our course of instruction is the same as that pursued at the Philadelphia Institute, except that we, for want of means, do not teach articulation or give industrial training. . . .

'E. P. CLEARY, *Principal.*'

12. SARAH FULLER HOME FOR LITTLE CHILDREN,
WHO CANNOT HEAR.

[This is the first infant school for the deaf in America. The members of the Royal Commission may desire to know something of the origin and purposes of the school. I, therefore, take the liberty of quoting from a personal letter received from the Principal of the Horace Mann School.—A. G. B.]

'Newton Lower Falls, Mass. : May 8, 1888.

'MY DEAR MR. BELL,— . . . I want to tell you a little about the beginning of our home school for little deaf children, as it will soon open. If you have had time to read the articles which I have sent to you, you know our object.

‘During the years of my work for deaf children I have often been pained to know that bright eager little minds were found to wait for needed direction until, through neglect, they became listless and indifferent to natural helps. No institution would receive them, day schools were too distant to allow them to live in their homes and go back and forth without much trouble and expense, and private teaching cost too much for the returns to be gained, so no practical way seemed to lead out of the many difficulties until Mrs. Francis Brooks said emphatically: “We will have a little school.” She has through friends secured enough money to warrant a good beginning, and we shall probably open the school next month with three pupils. One child is two and a half, deaf from cerebro-spinal meningitis, with some perception of sound, good antecedents, and a bright, attractive child. Another probable pupil was born deaf, good parentage, and is nearly three years of age. We have rented a small house near Mrs. Brooks’s home in West Medford, and have two admirable persons to take charge—one as matron, and the other as teacher. Nothing has been so full of interest to me since the opening of the Horace Mann School as this ideal home for very young deaf children. I can scarcely resist the wish to go to it myself. I would like very much to have an opportunity to tell you more about it. To-night I cannot write longer, but you shall know of my plans for it from time to time.

‘I am, sincerely yours,

‘SARAH FULLER.’

[The letter of Mrs. Brooks which has led to the establishment of this school is full of interest, and should be preserved. I therefore take the liberty of appending it.—A. G. B.]

‘THE SARAH FULLER HOME FOR LITTLE CHILDREN
WHO CANNOT HEAR.

‘It is proposed to establish in the country, near Boston, a home for children who, being deaf, cannot gain a knowledge of language unless taught.

'It is believed that in such a home, surrounded by the fostering care so needful to all young children, much may be done to mitigate the misfortune of deafness for these little ones.

'While teaching them to speak and to read the lips of those who speak to them, it will be possible to give them, at an early age, such knowledge of the rudiments of language, both spoken and written, as is usual with young hearing children.

'If this be accomplished, they will start in life less heavily weighted than if they are neglected until they are of the proper school age.

'It is not proposed to retain these children in the home after they are old enough to go to the Horace Mann School, only to prepare them for that and to utilise their earliest years before the organs of speech have lost their elasticity.

'If you are inclined to aid us in this undertaking, will you kindly sign this paper and name the amount of your gift?

'The money thus promised will be collected and acknowledged promptly.

'Please address and return to Mrs. Francis Brooks, 97 Beacon Street, Boston.'

Name _____

Address _____

Amount _____

SCHOOLS IN THE DOMINION OF CANADA.

1. CATHOLIC INSTITUTION (MALE), MONTREAL.

J. B. Manseau, Principal. No reply to circular letter up to date, June 2, 1888.

2. CATHOLIC INSTITUTION (FEMALE), MONTREAL.

Sister Mary of Mercy, Superioress. No reply to circular letter up to date, June 2, 1888.

3. HALIFAX INSTITUTION.

‘As a native of the mother country and for many years engaged in the instruction of the deaf and dumb there, I feel anxious to see the education of the deaf placed upon a proper basis. To accomplish this, in my view the following things are necessary:—

- ‘1. Adequate financial support guaranteed by law to lift the institutions above the precarious and fluctuating support of *voluntary contribution*.
- ‘2. A lengthened term of instruction—eight years at least, as in our own Nova Scotia law.
- ‘3. Better remuneration of teachers.
- ‘4. Elevation of teachers’ qualifications and status.

‘The last two would almost follow from the first, the want of funds being one chief source of the backwardness of deaf-mute education in Great Britain. Inadequate remuneration leads to inferior qualification and status of teachers, and that again to inferior work.

‘The best basis for an institution for the deaf is to have its management organised as a voluntary corporation, subject to public election, drawing a *per capita* allowance for the support of its pupils, payable partly by the State and partly by the municipality or parish to which the pupils belong, an allowance sufficient to cover the cost of maintenance and education. Voluntary contributions need not be excluded, but the work should be regarded as *national*, not *private*—a matter of *right*, not an *elemosynary dole*. The State to satisfy itself as to the quality of the work done by competent inspection or by tests applied according to a standard and method arranged by experts in the education of the deaf.

‘Such a system would produce the maximum of results with the minimum of friction and waste.

‘One evil to be dreaded is the subordination of the work to party politics, and another the employment of non-experts as

inspectors or supervisors of the educational work. This has done serious mischief to the cause of late years in some parts of America. In the old country there is less danger from political interference, but more from the appointment of merely professional men, chiefly clergymen, as inspectors who have no special acquaintance with deaf-mute education. No general educational qualifications or attainments, however eminent, can supply the lack of special training here, where more than anywhere else the adage applies, "A little knowledge is a dangerous thing."

‘ J. SCOTT HUTTON, *Principal*.

‘ May 17, 1888.’

4. ONTARIO INSTITUTION.

R. Mathison, Superintendent, forwards Reports of his Institution. The following passages, marked by Mr. Mathison, are quoted from the 1885 and 1887 Reports :—

From the 1885 Report.

‘ In each class there has been an average of twenty pupils, a number really in excess of what ought to be. Experience has demonstrated that sixteen deaf and dumb children are sufficient to tax the most painstaking and conscientious teacher. Although gratifying success has been shown by our teachers in the past with the larger number, still it is too much to expect that the same rate of progress can be maintained. The difficulties of teaching the deaf are greater than in teaching speaking children, as it is largely an individual work. With our present number of teachers, we are still obliged to place twenty or twenty-one pupils in each class. It is to be hoped that arrangements will be made whereby additional teachers may be obtained, so that the pupils now here, and to come, may receive an increased amount of benefit during their term of instruction.

‘ During the past year we have pursued the same methods of instruction as have been in vogue in former years, making every

study subordinate to the teaching of language—the great want of the deaf. The Province owes every deaf-mute child an education, and a good one. It is even more necessary that a deaf child should be educated than a speaking one, and this leads me to remark that the time allowed in this institution, seven years, is too short for the proper instruction of the majority of deaf-mutes. Pupils are admitted at seven years of age and are supposed to complete their studies when fourteen, at which age most speaking children are still at school. A deaf child has to be taught more than a speaking one, and yet it is allowed fewer years in which to receive the necessary instruction. An extension to ten years, with a course of study for that period, would enable us to impart a good knowledge of language to a majority of the children who attend here.'

'We have 235 pupils at the present time. About thirty of these are young children, all of whom are stated to be over seven years of age. They require constant, watchful care and attention, and were it not that the law compels us to receive them, it would be far better if they remained at home with their mothers until a more mature age had been reached. Their minds do not seem capable of grasping ideas, and for two or three years they are only taught the alphabet, and the names of a few objects which could be taught them in their own homes. The children who come here when nine or ten years of age take up the work much more readily than those who come younger, and are as far advanced at the end of one year as the younger ones who have spent two or three years here. Primary instruction could be given these little ones just as well by their parents, if they would interest themselves in the matter. A child may be taught quite early to write the letters of the alphabet and combine them into words indicating objects which can be shown to them. Its own name and names of persons in the family may also be learned in the same way. When a number of words are memorised, short and easy sentences may be written and understood by the child. Counting with objects may also be undertaken, and afford a pleasant pastime for the

little one, shut out as it is in many instances from enjoying the play of speaking children. A little attention given in this way would help the young deaf and dumb child materially.

‘Considerable discussion has taken place during the past year in England and the United States in reference to the establishment of day-schools for the deaf, in connection with ordinary public schools, but no definite conclusion seems to have been reached as to their desirability, as opposed to gathering them together in institutions. It has been contended that deaf-mutes brought into communication with hearing and speaking children in ordinary schools would derive great benefit from the association. The experiment was tried under the auspices of the School Board of London, England, but it was found impracticable to have them in the same rooms, and the deaf-mutes were relegated to classes in class-rooms by themselves. It was also seen that the deaf children did not associate and assimilate with the others, and that their powers of speech were insufficient to enable them to communicate with them. As a solution of the difficulties attending the day-school methods, homes were established in different parts of the city where they were kept and cared for the same as in an ordinary institution. In the United States a number of experiments have been made in the same direction, but with varying success, and where they still exist they are looked upon as only preliminary training places to fit pupils for the more thoroughly organised institutions. Professor J. C. Gordon, an eminent scholar, at the National Deaf-Mute College at Washington, has given a great deal of attention to this matter, and after thoroughly investigating the subject in a dispassionate manner, and consulting authorities at hand in the extensive library at his command, says “that disappointment and failure have uniformly followed the attempted extension and adaption of the common school system to the needs of deaf children; that in Europe the systematic and organised efforts in that direction have been abandoned, and the education of the deaf has been confined to trained specialists in organised institutions; that a complete

and satisfactory education of children who have never heard, in the same class with hearing children, has never been accomplished; that the satisfactory instruction of the deaf requires teachers having special fitness for the work, special training, and that special institutions remain the necessity for the great mass of deaf children, as they continue to afford satisfactory results with the greatest economy of time and money."

'Most of the institutions in the United States and Canada recognise the importance of industrial training for deaf-mutes. In the British institutions, however, an opposite opinion seems to prevail, for at a convention of the head-masters of these latter, held in Doncaster, a resolution was unanimously passed to the effect that the intellectual and moral training of the deaf and dumb was of more paramount importance to them than the teaching of trades. The principal objections then raised were, that when they left school they did not follow those trades which they had been taught, but preferred something else; that if they did continue to work at their respective trades, they were obliged to serve the full apprenticeship outside, no account being taken of the three or four years which they had spent at it while at school; and that the expense was too great. Since then, however, one, at least, of the British instructors has changed his opinion, namely the Rev. Wm. Stainer, who has charge of the London Day School. In a letter to the *London Times*, some time since, he says: "There are known to be at the present time hundreds of deaf and dumb people in the metropolis either wanting employment, or, for want of knowing a trade, incapable of supporting themselves by their own labour. Most of these have had all the advantages that an expensive school education could bestow, and yet are not self-supporting. . . . Hitherto I have advocated the entire separation of industrial and school occupations, on the ground that they would interfere with each other; but more recent experience, gained on the Continent and in the United States, convinces me that we are behind in this matter, and ought, without delay, to adopt practical measures in this direction.'"

From the 1887 Report.

‘ I have no new departure in the way of imparting instruction to deaf children to announce, as we have pursued the methods which we have found to be most effective in the past. Our system is known as the *Combined* one, and by its use we are advancing side by side with the best institutions in America. The convention of instructors which met at Berkeley, California, last year came to the conclusion that the experience of many years in the instruction of the deaf has plainly shown that among the members of this class of persons great differences exist in mental and physical conditions and in capacity for improvement, making results easily possible in certain cases which are actually unattainable in others, and that the system of instruction existing at present recommends itself for the reason that its tendency is to include all known methods and expedients which have been found to be of value in the education of the deaf, while it allows diversity and independence of action, working at the same time in harmony, and aiming at the attainment of a common object.

‘ R. MATHISON, *Superintendent.*’

5. MACKAY INSTITUTION.

‘ We discourage the use of signs in the class-rooms, and encourage written and spoken language. . . .

‘ The advanced ones can readily communicate with hearing people and with each other without resorting to pen and paper.

‘ HARRIET E. MCGANN, *Superintendent.*’

6. NEW BRUNSWICK INSTITUTION.

A. H. Abell, Principal. No reply to circular letter to date, June 2, 1888.

7. FREDERICTON INSTITUTION.

Albert F. Woodbridge, Principal. No reply to circular letter to date, June 2, 1888.

LETTERS.

From the former Principal of the Clarke Institution.

Boulder, Colorado : May 5, 1888.

DEAR SIR,—Your circular came this morning. I have been out of the work of deaf-mute teaching for nearly four years, and you need more recent statistics than anything I can give you. I cannot add anything to those which Miss Yale will give you. I am very glad you are sending out these "Queries," and hope you will receive full and prompt replies. I had a great deal of trouble to gather the tabular statement we made in 1883, in some instances having to make *several* requests before obtaining a reply. I have just been comparing our statement with that in the last January "Annals;" it shows a gain in the teaching of articulation, but not as great a gain as I would like to see.

The change at Hartford is quite marked, now giving some instruction in articulation to 85 out of 180, and in 1883 teaching 35 out of 188. In writing to Mr. Williams recently I commented on this increase, and he replies: "We have three teachers in our articulation department now, and are doing more than we have before done in that line. Some of our congenital mutes are doing remarkably well. I would have more rather than less of speech and speech reading, but at the same time I believe as firmly as ever that there is a large percentage of the children in all schools for the deaf to whom speech and speech reading can give no adequate compensation for the loss they would suffer in being deprived of the aid of the sign language in getting their education." When I think how the American Asylum fought the establishing of our school, I feel that "the world *does* move."

I hope the "Annals" will receive the benefit of the in-

formation you gather, and that you will be able to convince the Royal Commission of the advantages of articulation.

‘With thanks for your kind wishes for my health, and love to Mrs. Bell,

‘Yours truly,

‘H. B. ROGERS.

‘Professor A. Graham Bell,
1,336 Nineteenth Street, Washington, D.C.’

From the Editor of the ‘American Annals of the Deaf.’

‘Kendall Green, Washington, D.C.: May 5, 1888.

‘MY DEAR PROFESSOR BELL,—I thank you for your circular, which I was glad to see; also for your courteous invitation to express my views. To express them fully would require a good deal of explanation and qualification, and I do not think it best to undertake it at present. I will only express the hope that you will urge the British Government to afford liberal support to existing schools of all kinds, and to establish new ones, without hampering them by close restrictions of any kind as to the methods to be pursued, trusting rather to “the survival of the fittest,” which will be the inevitable result of the free discussion which has been going on for some time and is not yet ended.

‘Hoping you will have a pleasant and prosperous trip, and that your mission will result in much good,

‘I am very truly yours,

‘E. A. FAY.’

ARTICULATION TEACHING.

Canadian Schools for the Deaf in response to the Fifth Query of the Letter.

OF RETURNS													REMARKS			
Articulation				Not taught Articulation								TOTALS				
Articulation not used as means of instruction				Dropped from Articulation Classes				Received no instruction in Articulation								
Period of life when Deafness occurred				Period of life when Deafness occurred				Period of life when Deafness occurred				Period of life when Deafness occurred				
Birth or infancy (less than 2 years of age)	Early childhood (2 and less than 5 years of age)	Late childhood (5 or more years of age)	Unknown	Birth or infancy (less than 2 years of age)	Early childhood (2 and less than 5 years of age)	Late childhood (5 or more years of age)	Unknown	Birth or infancy (less than 2 years of age)	Early childhood (2 and less than 5 years of age)	Late childhood (5 or more years of age)	Unknown	Birth or infancy (less than 2 years of age)		Early childhood (2 and less than 5 years of age)	Late childhood (5 or more years of age)	Unknown
44	12	5	5	15	4	0	0	—	—	—	—	—	—	—	—	No reply to circular letter
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
0	0	0	0	12	6	0	0	97	194	11	0	145	246	45	0	Examinations prevented sending statistics
4	1	0	0	6	3	0	0	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	No reply to circular letter
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	No reply to circular letter
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	No reply to circular letter
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
8	4	3	0	25	4	0	0	50	—	—	—	101	—	—	—	No reply to circular letter
17	20	18	1	5	4	2	0	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	No reply to circular letter
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
28	8	9	*	10	1	1	†	—	—	—	—	—	—	—	—	No reply to circular letter
15	10	3	9	2	0	0	1	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	No reply to circular letter
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
44	19	6	0	3	1	0	0	110	21	3	2	102	26	8	1	No reply to circular letter
97	20	0	0	4	0	0	0	4	0	0	0	157	41	9	2	
—	—	—	—	—	—	—	—	—	—	—	—	105	20	15	140	No reply to circular letter
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	104	43	27	9	No reply to circular letter
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
0	0	0	0	0	0	0	0	0	0	0	0	65	19	11	3	No reply to circular letter
33	10	3	2	22	10	1	0	0	0	0	0	87	13	5	3	
—	—	—	—	—	—	—	—	—	—	—	—	68	20	4	3	No reply to circular letter
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

Name of School	Number of Articulation Teachers employed	Grand total of Pupils	SUMMARY OF RESULTS						ANALYSIS			
			Totals		Taught Articulation		Not taught Articulation		Taught			
			Articulation used as means of instruction		Articulation not used as means of instruction		Period of life when Deafness occurred		Articulation used as means of instruction			
			Taught Articulation	Not taught Articulation	Articulation used as means of instruction	Articulation not used as means of instruction	Dropped from Articulation Classes	Received no instruction in Articulation	Birth or infancy (less than 2 years of age)	Early childhood (2 and less than 5 years of age)	Late childhood (5 or more years of age)	Unknown
31. Horace Mann School	8	75	75	0	75	0	0	0	34	19	10	12
32. St. Joseph's Institute	14	272	249	23	224	25	23	0	—	—	—	—
33. West Virginia School	—	—	—	—	—	—	—	—	—	—	—	—
34. Oregon School	1	30	6	—	6	—	—	—	2	1	3	(
35. Maryland School for Coloured	—	—	—	—	—	—	—	—	—	—	—	—
36. Colorado Institute	1	42	14	28	14	0	28	0	—	—	—	—
37. Chicago Day Schools (Central)	1	27	8	19	0	8	6	13	0	0	0	(
38. Central New York Institution	1	158	30	128	15	15	3	125	—	—	—	—
39. Cincinnati Public School	—	—	—	—	—	—	—	—	—	—	—	—
40. West Pennsylvania Institution	1	152	27	125	0	27	17	108	0	0	0	(
41. Western New York Institution	—	—	—	—	—	—	—	—	—	—	—	—
42. Portland School	5	50	50	0	50	0	0	0	33	14	2	1
43. Rhode Island State School	4	30	30	0	30	0	0	0	16	8	4	5
44. St. Louis Day School	—	—	—	—	—	—	—	—	—	—	—	—
45. New England Industrial School	1	22	16	6	0	16	2	4	0	0	0	(
46. Dakota School	—	—	—	—	—	—	—	—	—	—	—	—
47. Milwaukee Day School	4	35	35	0	35	0	0	0	22	8	5	(
48. Pennsylvania Oral School	2	24	24	0	24	0	0	0	18	4	2	(
49. New Jersey School	2	96	39	57	13	26	8	49	5	8	0	(
50. Utah School	—	—	—	—	—	—	—	—	—	—	—	—
51. Northern New York Institution	—	—	—	—	—	—	—	—	—	—	—	—
52. Florida Institute	—	18	12	6	11	1	4	2	—	—	—	—
53. Washington Territory School	1 ^o	19	7	12	0	7	0	12	0	0	0	(
54. New Orleans Public School ^o	—	—	—	—	—	—	—	—	—	—	—	—
55. Evansville School	—	—	—	—	—	—	—	—	—	—	—	—
56. La Crosse Day School	1	6	6	0	6	0	0	0	3	3	0	0
57. New Mexico School	—	—	—	—	—	—	—	—	—	—	—	—
PRIVATE SCHOOLS.												
1. Whipple's Home School	4	25	25	0	25	0	0	0	—	—	—	—
2. German Evangelical Lutheran Institute	3	132	132	0	132	0	0	0	76	46	10	0
3. St. John's Catholic Institute	2	17	12	5	1	11	1	4	0	0	1	0
4. Mr. Knapp's Institute	—	—	—	—	—	—	—	—	—	—	—	—
5. Chicago Voice & Hearing School	—	20	20	0	20	0	0	0	15	3	2	0
6. Mary Garrett's School	1	12	12	0	12	0	0	0	12	0	0	0
7. Maria Consilia Institute	1	31	8	23	8	0	0	23	5	1	2	0

ARTICULATION TEACHING—continued.

RETURNS														REMARKS
Articulation			Not taught Articulation									TOTALS		
Articulation not used as means of instruction			Dropped from Articulation classes			Received no instruction in Articulation								
Period of life when deafness occurred			Period of life when Deafness occurred			Period of life when Deafness occurred			Period of life when Deafness occurred					
Early childhood (2 and less than 5 years of age)	Late childhood (5 or more years of age)	Unknown	Birth or infancy (less than 2 years of age)	Early childhood (2 and less than 5 years of age)	Late childhood (5 or more years of age)	Unknown	Birth or infancy (less than 2 years of age)	Early childhood (2 and less than 5 years of age)	Late childhood (5 or more years of age)	Unknown	Birth or infancy (less than 2 years of age)	Early childhood (2 and less than 5 years of age)	Late childhood (5 or more years of age)	Unknown
0	0	0	0	0	0	0	0	0	0	0	34	19	10	2
—	—	—	—	—	—	—	—	—	—	—	188	41	27	16
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
0	0	0	—	—	—	—	0	0	0	0	17	6	0	19*
4	1	0	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3	5	8	9	3	2	3	57	33	14	4	77	39	21	15
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
0	0	0	0	0	0	0	0	0	0	0	33	14	2	1
0	0	0	0	0	0	0	0	0	0	0	16	8	4	2
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4	0	0	2	0	0	0	4	0	0	0	18	4	0	0
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
0	0	0	0	0	0	0	0	0	0	0	22	8	5	0
0	0	0	0	0	0	0	0	0	0	0	18	4	2	0
4	5	0	8	0	0	0	49	0	0	0	79	12	5	0
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4	1	0	0	0	0	0	7	3	2	0	9	7	3	0
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
0	0	0	0	0	0	0	0	0	0	0	3	3	0	0
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
0	0	0	0	0	0	0	0	0	0	0	76	46	10	0
9	1	1	0	0	0	0	2	1	0	1	3	10	2	2
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
0	0	0	0	0	0	0	0	0	0	0	15	3	2	0
0	0	0	0	0	0	0	0	0	0	0	12	0	0	0

Name of School	Number of Articulation Teachers employed	Grand total of Pupils	SUMMARY OF RESULTS						ANALYSIS			
			Totals		Taught Articulation		Not taught Articulation		Taught			
			Articulation used as means of instruction		Articulation not used as means of instruction		Period of life when Deafness occurred		Articulation used as means of instruction		Period of life when Deafness occurred	
			Taught Articulation	Not taught Articulation	Articulation used as means of instruction	Articulation not used as means of instruction	Dropped from Articulation Classes	Received no instruction in Articulation	Birth or infancy (less than 2 years of age)	Early childhood (2 and less than 5 years of age)	Late childhood (5 or more years of age)	Unknown
8. Cincinnati Oral School . . .	—	—	—	—	—	—	—	—	—	—	—	—
9. Chicago Catholic School . . .	—	—	—	—	—	—	—	—	—	—	—	—
10. Miss Keeler's Articulation Class	—	10	10	0	10	0	0	0	6	1	1	2
11. Cincinnati Catholic School . . .	—	—	—	—	—	—	—	—	—	—	—	—
12. Sarah Fuller Home . . .	1	3	3	0	3	0	0	0	3	0	0	0
CANADIAN SCHOOLS.												
1. Catholic Institution (Male) . . .	—	—	—	—	—	—	—	—	—	—	—	—
2. Catholic Institution (Female) . . .	—	—	—	—	—	—	—	—	—	—	—	—
3. Halifax Institution . . .	2	75	15	60	2	13	0	60	—	—	—	—
4. Ontario Institution . . .	—	—	—	—	—	—	—	—	—	—	—	—
5. Mackay Institution (Protestant) . . .	2	43	15	28	0	15	6	22	0	0	0	0
6. New Brunswick Institution . . .	—	—	—	—	—	—	—	—	—	—	—	—
7. Fredericton Institution . . .	—	—	—	—	—	—	—	—	—	—	—	—

- No. 8. * Figures so far as given reliable, but for details Principal says: 'Statistics not accurate enough.'
- No. 10. * 'Articulation is not used as the sole means of instruction in any case, but in most of these cases entering the institution are examined and tried to ascertain those who give promise of doing better.'
- No. 11. * 'No specialist. We have always tried to improve the speech of those who came to us having the best of hearing.'
- No. 16. * 'We have 1 Articulation teacher and contemplate another.'
- No. 19. * 'Four' noted, but addition of figures reveals error. † '2' noted, but addition reveals error.
- No. 20A. * 'Thirty-seven taught articulation. Articulation used as means of instruction, but not as the sole means of instruction. † 'Mostly deaf from birth.'
- No. 23. * 'Several are talked to and talk in their regular classes, but no classes are formed where articulation is used as the sole means of instruction.'
- No. 36. * 'Ten,' but addition of figures reveals 9 more unaccounted for.
- No. 53. * 'No special teacher. Director and 1 teacher have had some experience in Articulation teaching.'
- No. 54. * 'I intend introducing an Articulation class into this school shortly.'

VI. MISCELLANEOUS MATERIAL.

A DEAF-MUTE'S MEMORIAL TO CONGRESS TO
ESTABLISH A DEAF-MUTE STATE.

Letter to the Editor from the 'Gallaudet Guide and Deaf-Mutes' Companion,' vol. i. No. 12.—Boston, Mass., December 1860.

‘Near Athens, September 30, 1860.

‘WM. M. CHAMBERLAIN: Dear Sir,—The following is a copy of a memorial I have written and placed in the hands of our representative, Hon. James Jackson, for presentation to Congress early in December. It is sent you that if any of our class within your reach would like a similar petition, they may do so, and send it before the Congress meet, by the representative from Massachusetts, residing in Boston, who will meet and confer with Mr. Jackson at Washington.’

MEMORIAL.

‘To the Honourable the Congress of the United States—
House and Senate :

‘The memorial of John James Flourney, deaf-mute, now residing in the State of Georgia, respectfully sheweth :

‘That there are several deaf and dumb persons in the United States, having education, but in poor circumstances, who are incapable of competing with hearing persons in the means of making a living other than manual, and secondary to leading ones, employed by capitalists, which is that of common mechanic, or labourer ; incapable from prejudice or want of situation of capacity (for none are tested) of election by the people, preferment by Government, or the usages of a profession—of having offices or emoluments, and thus contracted to the means of a day or job labourer :—that your Petitioner believes his

unfortunate class of people are capable of performing many things denied their ability. But that there is no possibility of putting to effect our powers derived from education, except we could settle some territory out West, have a community of our own; and build up a small State, the government of which being ourselves (the deaf and dumb), by our management, may exhibit our capacities and sources. That unless the right to the pre-emption and government of such a territory be accorded us, by the Congress and Executive, we would have no sufficient chance of evincing capacity.

‘Your Petitioner therefore earnestly invokes the deliberation of the Congress. In the West, yet unchanged unto States, may be tracts of land in a territorial condition, adapted to this purpose. We pray that about forty or fifty square miles may be permitted us to select and lay off for a State and Government, devoted to the control and settlement, subject to the payment of the Government price per acre, of the deaf population of the United States and Europe, and subject, like other States, when admitted to a Republican form of Government and to the Constitution of the United States; and to be a reservation for our use and Government.

‘And so your Petitioner will ever humbly pray.

‘JOHN JAMES FLOURNEY.’

MARRIAGE LAWS IN THEIR RELATION TO THE DEAF.

Extract from the ‘Deaf-Mutes’ Journal,’ August 7, 1884.

‘William Hebing, a young German, living on Hamilton Place, is the happy father of a ten-pound boy. The only peculiar feature in the case is that the parents are deaf-mutes, while the child, like most all children, has a strong pair of lungs, as neighbours can testify, and its organs of sound are apparently perfectly developed. Mr. Hebing is about twenty-eight years of age, and is a nephew of ex-Alderman Henry Hebing. He is an optician, and works for Bausch & Lomb. He was born

dumb, as was his wife. Both are graduates of the Mute Institute in New York, where they resided for seven years. Removing to Rochester, they were married last fall in St. Boniface Church. Mr. Hebing states that he and his wife are not disturbed in their rest by baby crying.

‘The matter seemed strange, and the facts were communicated to Dr. Fenno. He said that the child crying was no sign that it would talk. If the parents were born dumb and the child could talk, the doctor said he would think it strange.’—*Rochester Union and Advertiser*, July 30.

‘William Hebing states that neither he nor his wife were born mutes. He merely wishes it stated, as the laws of the State forbid persons born mutes to be joined in marriage.’—*Rochester Union and Advertiser*, August 2, 1884.

Letter from the Librarian of the Law Library of Congress in reference to the above.

‘Law Library, Capitol, Washington, D.C. : May 23, 1888.

‘MY DEAR SIR,—In reply to your recent communication I have to report that, if there be a law in the state of New York “forbidding persons born mute to be joined in matrimony,” I am unable to find it, and I can further say that, after considerable search, I cannot see that such was ever the law in any of the United States. It is true that persons *non compos mentis* have always been considered incapable of marriage, and in early days there was a disposition to rank mutes among this class. But that notion has long been dissipated, and it is now understood to be the law, as was decided in the year 1820 in the case of *Brower v. Fisher*, 4 Johnson’s Chancery (New York), 441, that “a person though deaf and dumb from his nativity is not, therefore, an idiot or *non compos mentis*.”

‘Bishop, the leading American authority on the law of Marriage and Divorce (6th ed. 1881), says: “A person deaf and dumb may be competent to contract matrimony.” Stewart,

“On Marriage and Divorce in England and the United States,” still more recent (1884), says: “Deaf and dumb persons are not idiots at law, and are mentally competent to marry.” Fraser, in his well-known book on the Domestic Relations (Edinburgh, 1846), states the general conclusion to be: “Though a party be deaf and dumb, he is capable of marriage, because this corporeal infirmity is not mental incapacity, nor does it prevent the consummation of marriage by copula.” And he refers at length to the great work of Sanchez (our copy is 3 vols. fol. Antwerp, 1614), where the matter is fully discussed, and the author expresses his decided opinion in favour of the validity of the marriage of parties deaf and dumb, his arguments in favour of this conclusion being strengthened by “the acknowledged fact that persons labour under this disease who are frequently of high intellectual capacity; and he adds, *durissimum esset eos compellere continenter vivere.*”

‘Thus, it may be concluded, such a regulation as the prohibition of the marriage of born mutes not only does not obtain in New York, but is the law nowhere in Christendom.

‘Glad to be of service to you.

‘I am, yours very sincerely,

‘CHAS. W. HOFFMAN.

‘Prof. Alexander Graham Bell, 1,336 Nineteenth Street.’

FREE INSTRUCTION OF DEAF CHILDREN.

RECENT LEGISLATION IN MASSACHUSETTS.

CHAPTER 179.

An Act to provide for the free instruction of deaf-mutes or deaf children.

Be it enacted, &c., as follows:—

Section 1.—With the approval of the board of education the governor may send such deaf-mutes or deaf children as he may deem fit subjects for education, for a term not exceeding ten

years in the case of any pupil, to the American Asylum at Hartford, the Clarke Institution for Deaf-Mutes at Northampton, or to the Horace Mann School at Boston, or to any other school for deaf-mutes in the Commonwealth, as the parents or guardians may prefer; and with the approval of the board he may make at the expense of the Commonwealth such provision for the care and education of children, who are both deaf-mutes and blind, as he may deem expedient. In the exercise of the discretionary power conferred by this act no distinction shall be made on account of the wealth or poverty of the parents or guardians of such children; no such pupil shall be withdrawn from such institution or school except with the consent of the proper authorities thereof or of the governor, and the sums necessary for the instruction and support of such pupils in such institution or school shall be paid by the Commonwealth: *provided, nevertheless*, that nothing herein contained shall be held to prevent the voluntary payment of the whole or any part of such sums by the parents or guardians of said pupils.

Section 2.—Section sixteen of chapter forty-one of the Public Statutes and chapter two hundred and forty-one of the acts of the year eighteen hundred and eighty-six are hereby repealed.

Section 3.—This act shall take effect upon its passage.

Approved, April 14, 1887.

GROWTH OF AMERICAN SCHOOLS FOR THE DEAF
FROM 1857 TO 1887.

Statistics compiled from the American Annals of the Deaf.

Date	Total number of Schools	Total number of Pupils	Number of pupils taught Articulation	Total number of Teachers	Number of deaf teachers	Number of Articulation teachers
1857	20	1,721	—	95	—	—
1863	22	2,012	—	—	—	—
1866	24	2,469	—	119	—	—
1867	24	2,576	—	120	—	—
1868	27	2,898	—	170	71	—
1869	30	3,246	—	187	77	—
1870	34	3,784	—	222	94	—
1871	38	4,068	—	260	(?)	—
1872	36	4,253	—	271	107	—
1873	38	4,252	—	274	104	—
1874	44	4,892	—	290	98	—
1875	48	5,309	—	321	111	—
1876	49	5,010	—	304	104	—
1877	49	5,711	—	356	111	—
1878	49	6,166	—	375	126	—
1879	51	6,431	—	388	113	—
1880	55	6,798	—	425	132	—
1881	55	7,019	—	444	147	—
1882	55	7,155	—	481	154	—
1883	58	7,169	—	497	151	—
1884	61	7,485	2,041	508	155	—
1885	64	7,801	2,618	540	156	—
1886	66	8,050	2,484	566	158	134
1887	69	7,978	2,556	577	155	171

ANALYSIS OF TENTH CENSUS OF THE UNITED STATES
RELATING TO THE DEAF AND DUMB.

Results compiled from the published statements of the Rev. Fred. H. Wines, Expert and Special Agent of the Tenth Census for the Defective, Dependent and Delinquent Classes.

DEAF AND DUMB OF THE UNITED STATES, 1880.

WHERE FOUND.

At home or in private families	27,867
In schools (including day-schools)	5,393
In almshouses	511
In benevolent institutions	79
In hospitals or asylums for the insane.	24
In prisons	4
Total	<u>33,878</u>

SEXES.

Males	18,567
Females	15,311
Total	<u>33,878</u>

AGES.

Under 6 years of age	1,437
6 to 16 years of age	10,046
Over 16 and under 21	5,013
21 years of age and over	17,382
Total	<u>33,878</u>

AGE WHEN DEAFNESS OCCURRED.

Born deaf	12,155
Under 5 years of age	7,289
5 to 9 years of age	2,235
10 to 14 years of age	694
15 years of age	100
Unknown	11,405
Total	<u>33,878</u>

CAUSES OF DEAFNESS.

Congenital	12,155
Adventitious	10,318
Not stated	11,405
Total	<u>33,878</u>

CAUSES OF ADVENTITIOUS DEAFNESS.

Causes assigned, accepted and tabulated	9,209
Causes assigned, rejected as too vague or improbable to be counted or classified	978
No cause assigned	131
Total	<u>10,318</u>

CAUSES OF ADVENTITIOUS DEAFNESS ASSIGNED WITH MORE OR LESS
DEFINITENESS AND PROBABILITY IN THE FOLLOWING CASES.

Accident	593
Diseases of ear	366
Other diseases	8,250
Total	<u>9,209</u>

ANALYSIS OF THE CAUSES OF ADVENTITIOUS
DEAFNESS IN THE UNITED STATES.

The list of causes accepted and tallied by the officers of the 1880 Census.

Meningitis	2,856
Scarlet Fever	2,695
Malarial and Typhoid Fevers	571
Measles	448
Fevers (non-malarial)	381
Catarrh and Catarrhal Fevers	324
Other Inflammations of Air-passages	142
Falls	323
Abscesses	281
Whooping-cough	195
Nervous Affections	170
Scrofula	131
Quinine	78
Blows and Contusions	74
Inflammations of the Ear	72
Diphtheria	70
Hydrocephalus	63
Teething	54
Mumps	51
Small-pox and Variola	47
Erysipelas	36
Fright	32
Water in the Ear	25
Sun-stroke	21
Noises and Concussions	21
Tumours	11
Chicken-pox	10
Struck by Lightning	10
Foreign Bodies in the Ear	9
Salt Rheum	3
Malformation of the Ear	2
Syphilis	2
Consumption	1
Total	9,209

SCHOOLS FOR THE DEAF IN THE UNITED STATES, 1888.

Name	Location	Method of Instruction	Date of Opening	Chief Executive Officer
A.—PUBLIC SCHOOLS.				
1. American Asylum for the Education of the Deaf and Dumb	Hartford, Conn.	Combined	1817	Job Williams, M.A., Principal.
2. New York Institution for the Instruction of the Deaf and Dumb	Washington Heights, New York, N.Y.	Combined	1819	{ Isaac Lewis Peet, LL.D., Principal. Chauncey N. Brainerd, Superintendent.
3. Pennsylvania Institution for the Deaf and Dumb	Philadelphia (3), Pa.	Manual and Oral	1821	A. L. E. Crouter, M.A., Principal.
4. Kentucky Institution for the Education of Deaf-Mutes	Danville, Ky.	Combined	1823	W. K. Argo, B.A., Superintendent.
5. Ohio Institution for the Education of the Deaf and Dumb	Columbus, Ohio	Combined	1829	Amasa Pratt, M.A., Superintendent.
6. Virginia Institution for the Education of the Deaf and Dumb and the Blind	Staunton, Va.	Combined	1839	Thomas S. Doyle, Principal.
7. Indiana Institution for the Education of the Deaf and Dumb	Indianapolis, Ind.	Combined	1844	Eli P. Baker, Superintendent.
8. Tennessee School for the Deaf and Dumb	Knoxville, Tenn.	Combined	1845	Thomas L. Moses, Principal.
9. North Carolina Institution for the Deaf and Dumb and the Blind	Raleigh, N.C.	Oral and Manual	1845	W. J. Young, M.A., Principal.
10. Illinois Institution for the Education of the Deaf and Dumb	Jacksonville, Ill.	Combined	1846	Philip G. Gillett, M.A., LL.D., Superintendent.
11. Georgia Institution for the Education of the Deaf and Dumb	Cave Spring, Ga.	Manual	1846	W. O. Connor, Principal.
12. South Carolina Institution for the Education of the Deaf and Dumb and the Blind	Cedar Spring, S.C.	Combined	1849	Newton F. Walker, Superintendent.
13. Missouri Institution for the Education of the Deaf and Dumb	Fulton, Mo.	Combined	1851	William D. Kerr, M.A., Superintendent.
14. Louisiana Institution for the Deaf and Dumb	Baton Rouge, La.	—	1852	John Jastremski, M.D., Superintendent.

SCHOOLS FOR THE DEAF IN THE UNITED STATES, 1888—continued.

Name	Location	Method of Instruction	Date of Opening	Chief Executive Officer
15. Wisconsin School for the Deaf	Delavan, Wis.	Combined	1852	John W. Swiler, M.A., Superintendent.
16. Michigan School for the Deaf	Flint, Mich.	Combined	1854	M. T. Gass, M.A., Superintendent.
17. Mississippi Institution for the Education of the Deaf and Dumb	Jackson, Miss.	Combined	1854	J. R. Dobyus, M.A., Superintendent.
18. Iowa Institution for the Education of the Deaf and Dumb	Council Bluffs, Iowa	Combined	1855	Henry W. Rothert, Superintendent.
19. Texas Deaf and Dumb Asylum	Austin, Texas.	Combined	1857	G. L. Wykoff, Principal. W. H. Kendall, Superintendent.
20. Columbia Institution for the Deaf and Dumb	Kendall Green, near Washington, D.C.	—	1857	E. M. Gallaudet, Ph.D., LL.D., President.
A. Kendall School for the Deaf	Kendall Green, near Washington, D.C.	Combined	1857	James Denison, M.A., Principal.
B. National Deaf-Mute College	Kendall Green, near Washington, D.C.	Manual	1864	E. M. Gallaudet, Ph.D., LL.D., President.
21. Alabama Institution for the Deaf	Talladega, Alabama	Combined	1858	Joseph H. Johnson, M.D., Principal.
22. California Institution for the Deaf and Dumb and the Blind	Berkeley, California	Combined	1860	Warring Wilkinson, M.A., Principal.
23. Kansas Institution for the Education of the Deaf and Dumb	Olathe, Kansas	Combined	1861	S. T. Walker, M.A., Superintendent.
24. Le Couvent St. Mary's Institution for Improved Instruction of Deaf-Mutes	Buffalo, N.Y.	Manual, Oral, and Combined	1862	Sister Mary Anne Burke, Principal.
25. Minnesota School for the Deaf	Faribault, Minn.	Combined	1863	Jonathan L. Noyes, M.A., Superintendent.
26. Institution for the Improved Instruction of Deaf-Mutes	New York, N.Y.	Oral	1867	D. Greenberger, Principal.
27. Clarke Institution for Deaf-Mutes	Northampton, Mass.	Oral	1867	Miss Caroline A. Yale, Principal.
28. Arkansas Deaf-Mute Institute	Little Rock, Ark.	Combined	1867	Francis D. Clarke, M.A., Principal.
29. Maryland School for the Deaf and Dumb	Frederick City, Md.	Combined	1868	Chas. W. Ely, M.A., Principal.

30. Nebraska Institute for the Deaf and Dumb	Omaha, Neb.	.	Combined and Aural	1869	John A. Gillespie, M.A., Principal.
31. Horace Mann School for the Deaf	Boston, Mass.	.	Oral . . .	1869	Miss Sarah Fuller, Principal.
32. St. Joseph's Institute for the Improved Instruction of Deaf-Mutes	Fordham, N.Y.	.	Combined and Oral	1869	Madame Ernestine Nardin, President.
33. West Virginia School for the Deaf and the Blind	Romney, W. Va.	.	Combined . . .	1870	H. B. Gilkeson, Principal.
34. Oregon School for Deaf-Mutes	Salem, Oregon	.	Combined . . .	1870	Rev. P. S. Knight. Superintendent.
35. Maryland School for Coloured Blind and Deaf-Mutes	Baltimore, Md.	.	Combined . . .	1872	F. D. Morrison, M.A., Superintendent.
36. Colorado Institute for the Mute and Blind	Colorado Springs, Colo.	.	Combined . . .	1874	John E. Ray, M.A., Superintendent.
37. Chicago Deaf-Mute Day-Schools	Chicago, Ill.	.	Manual and oral	1875	Philip A. Emery, M.A., Principal.
38. Central New York Institution for Deaf-Mutes	Rome, N.Y.	.	Combined . . .	1875	Edward B. Nelson, B.A., Principal.
39. Cincinnati Public School for Deaf-Mutes	Cincinnati, Ohio	.	Manual . . .	1875	A. F. Wood, Principal.
40. West Pennsylvania Institution for the Instruction of the Deaf and Dumb	Edgewood, near Wilkesburg, Pa.	.	Combined . . .	1876	Rev. J. G. Brown, D.D., Principal.
41. Western New York Institution for Deaf-Mutes	Rochester, N.Y.	.	Combined . . .	1876	Z. F. Westervelt, Principal and Superintendent.
42. Portland School for the Deaf	Portland, Me.	.	Oral . . .	1876	Miss Ellen L. Barton, Principal.
43. Rhode Island State School for the Deaf	Providence, R.I.	.	Oral . . .	1877	Miss Anna M. Black, Principal.
44. St. Louis Day-School for the Deaf	St. Louis, Mo.	.	Manual . . .	1878	D. A. Simpson, B.A., Principal.
45. New England Industrial School for Deaf-Mutes	Beverly, Mass.	.	Combined . . .	1879	Miss Nellie H. Swett, Principal.
46. Dakota School for Deaf-Mutes	Sioux Falls, D.T.	.	Combined . . .	1880	James Simpson, Superintendent.
47. Milwaukee Day-School for the Deaf	Milwaukee, Wis.	.	Oral . . .	1883	Paul Binner, Principal.
48. Pennsylvania Oral School for the Deaf	Scranton, Pa.	.	Oral . . .	1883	Miss Emma Garrett, Principal.
49. New Jersey School for Deaf-Mutes	Chambersburg, near Trenton, N.J.	.	Combined . . .	1883	Weston Jenkins, M.A., Superintendent.

SCHOOLS FOR THE DEAF IN THE UNITED STATES, 1888—continued.

Name	Location	Method of Instruction	Date of Opening	Chief Executive Officer
50. Utah School for the Deaf	Salt Lake City, Utah	Manual	1884	Henry C. White, B.A., Principal.
51. Northern New York Institution for Deaf-Mutes	Malone, N.Y.	Combined	1884	Henry C. Rider, Superintendent.
52. Florida Blind and Deaf-Mute Institute	St. Augustine, Fla.	Combined	1885	Park Terrell, Principal.
53. Washington School for Defective Youth	Vancouver, W.T.	Combined	1886	James Watson, Director.
54. New Orleans Public School for Deaf-Mutes	New Orleans, La.	Manual	1886	R. B. Lawrence, Principal.
55. Evansville Deaf-Mute School	Evansville, Ind.	Manual	1886	Chas. Kerney, B.A., Principal.
56. La Crosse Day-School	La Crosse, Wis.	Oral	1886	Albert Hardy, Superintendent of Schools.
57. New Mexico School for the Deaf and Dumb	Santa Fé, N.M.	Manual	1887	Lars M. Larson, B.A., Superintendent.
B. DENOMINATIONAL AND PRIVATE SCHOOLS, 1888.				
1. Whipple's Home School for Deaf-Mutes	Mystic River, Conn.	Oral	1869	Margaret Hammond, Principal.
2. German Evangelical Lutheran Institution for Deaf and Dumb	Norris, Mich.	Oral	1873	D. H. Uhlig, Director.
3. St. John's Catholic Deaf-Mute Institute	St. Francis, Wis.	Combined	1876	Rev. Chas. Fessler, President.
4. Mr. Knapp's Institute	Baltimore, Md.	Oral	1877	Frederick Knapp, Principal.
5. Chicago Voice and Hearing School for the Deaf	Englewood, Ill.	Oral and aural	1882	Miss Mary McCowen, Principal.
6. Private School for Teaching Deaf Children to Speak	Philadelphia, Pa.	Oral	1885	Miss Mary S. Garrett, Principal.
7. Maria Consilia Deaf-Mute Institute	St. Louis, Mo.	Combined	1885	Sister Adèle, Principal.
8. Cincinnati Oral School for the Deaf	Cincinnati, O.	Oral	1886	Mrs. Katharine Westendorf, Principal.

9. Chicago Catholic School for Deaf-Mutes	Chicago, Ill.	.	.	.	Miss Sarah Warren Keeler, Principal.
10. Miss Keeler's Articulation Class	New York, N.Y.	.	.	Oral	1886
11. Cincinnati Catholic School for Deaf-Mutes	Cincinnati, O.	.	.	Manual	1887
12. Sarah Fuller Home for Little Children who cannot Hear	West Medford, Mass.	.	.	Oral	1888
C. SCHOOLS FOR THE DEAF IN CANADA, 1888.					
1. Catholic Male Deaf and Dumb Institution for the Province of Quebec	Mile-End, near Montreal, Can.	.	.	Manual and Oral.	1848
2. Institution for the Female Deaf and Dumb of the Province of Quebec	Montreal, Can.	.	.	Manual and Oral.	1851
3. Halifax Institution for the Deaf and Dumb	Halifax, N.S.	.	.	Combined.	1857
4. Ontario Institution for the Deaf and Dumb	Belleville, Ontario	.	.	Combined.	1870
5. Mackay Institution for Protestant Deaf-Mutes and the Blind	Montreal, Can.	.	.	Combined.	1870
6. New Brunswick Deaf and Dumb Institution	Portland, N.B.	.	.	Manual	1873
7. Fredericton Institution for the Education of the Deaf and Dumb	Fredericton, N.B.	.	.	Combined.	1882
					Rev. J. B. Manseau, C.S.V., Principal.
					Rev. Sister Mary of Mercy, Superioress.
					J. Scott Hutton, M.A., Prin- cipal.
					R. Mathison, Superinten- dent.
					Miss Harriet E. McGann, Superintendent.
					A. H. Abell, Principal.
					Albert F. Woodbridge, Principal.

- A.
- (3) Broad and Pine and (Oral Branch) Eleventh and Clinton Streets.
 - (24) No. 125 Edward Street.
 - (26) Lexington Avenue, between 67th and 68th Streets.
 - (31) No. 63 Warrenton Street.
 - (32) This Institution has three branches: one at Fordham, another at 510 Henry Street, Brooklyn, and another at Thragg's Neck, Westchester county, N.Y.
 - (35) No. 649 W. Saratoga Street.
 - (39) There are five schools in different parts of the city. Mr. Emery's address is 43 So. May Street.
 - (39) Ninth Street, between Walnut and Main Streets.
 - (43) Corner Fountain and Beverly Streets.
- B.
- (44) Corner Ninth and Washington Streets.
 - (47) Corner Seventh and Prairie Streets.
 - (54) Corner of Girod and Rampart Streets.
 - (4) Nos. 29, 31, and 33 Halliday Street.
 - (5) Wabash Avenue, near 63rd Street.
 - (6) No. 16 South Broad Street.
 - (7) No. 1849 Cass Avenue.
 - (8) Seventh and Race Streets.
 - (9) St. Joseph's Home, May Street.
 - (10) No. 597 Lexington Avenue.
 - (2) No. 401 St. Denis Street.
 - (5) Notre Dame de Grâce.
- C.



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