CAPTIONED FILMS FOR THE DEAF

HEARING

BEFORE A

SPECIAL SUBCOMMITTEE

OF THE

COMMITTEE ON
R AND PUBLIC WELFARE
NITED STATES SENATE

EIGHTY-SEVENTH CONGRESS

SECOND SESSION

ON

S. 2511

A BILL TO PROVIDE FOR AN INCREASED PROGRAM OF CAPTIONED FILMS FOR THE DEAF

AUGUST 7, 1962

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TUESDAY, AUGUST 7, 1962

U.S. SENATE,
SPECIAL SUBCOMMITTEE OF THE
COMMITTEE ON LABOR AND PUBLIC WELFARE,
Washington, D.C.

The special subcommittee met, pursuant to notice, at 10 a.m., in room 4232, New Senate Office Building, Senator Pell, chairman of the subcommittee, presiding.

Present: Senators Pell (presiding), Yarborough, and Tower.

Also present: Hon. Edmund S. Muskie, a U.S. Senator from the State of Maine.

Staff committee members present: Stewart E. McClure, chief clerk; John S. Forsythe, general counsel; Robert W. Barclay, professional staff member of the subcommittee, and Raymond D. Hurley, minority associate counsel.

Senator PELL. I would like to call to order this hearing of the special subcommittee of the Committee on Labor and Public Welfare to hold hearings on S. 2511, to provide for the production and distribution of educational and training films for use by deaf persons and for other purposes.

There are today in the United States 250,000 fellow citizens who are totally deaf, and many more who are partially deaf. All too little has been done to help these people—particularly the totally deaf—to play the useful and self-sufficient role in our society of which they are capable.

Accordingly, I am honored and pleased to be presiding over this special subcommittee hearing today on S. 2511, which authorizes an expanded program of captioned films for the deaf, authorizes research for the most effective use of these films, and authorizes the training of professional persons in the most effective use of captioned films.

As all of you know, the distinguished Senator from Maine, Mr. Muskie, who will be one of our first witnesses, introduced S. 2511. I might add that I am proud to be a cosponsor of this measure.

I also want to mention that my distinguished colleague in the House of Representatives, Congressman John Fogarty, has introduced a companion bill, H.R. 9456.

The program of captioned films, which S. 2511 seeks to expand, was made possible by the diligent work of former Senator Purtell, of Connecticut, who in April 1957 introduced S. 1889 in the 85th Congress. S. 1889 resulted in Public Law 85–905.

I very much regret that Senator Purtell cannot be with us personally today, but I understand that he will be submitting a statement in support of the bill. One of the things which pleases me most

about this program is that it is genuinely bipartisan and this is certainly the spirit in which I intend to conduct these hearings.

We are dealing here today with a proven program which has been in operation since 1959. The value of captioned films has been thoroughly tested and evaluated.

The principal problem is that the present program does not begin to meet the demand. All prints presently available are booked at least a year or two in advance. Surely, we must do better than we have.

It is not commonly understood that the deaf child, in comparison for instance to the blind child, has a much more difficult learning process. Being able to hear is vital to the whole learning process. It is a regrettable fact that many deaf children do not even know their own name by the time they are 6 years old. Surely we, in turn, cannot turn a deaf ear to those who desperately want to learn, be they children or adults. In this connection, I want to emphasize that this program can also be very helpful in enabling deaf adults to make their full contribution to society.

I mentioned earlier that this bill would also help to stimulate much needed research in the use of captioned films and provide for training of professional people in their use. Thus, this bill represents a well-rounded, thoroughly proven program which is vitally needed, and I am hopeful that prompt action will be taken on it.

I would like to call as the first witness my colleague and friend, Senator Muskie.

STATEMENT OF HON. EDMUND S. MUSKIE, U.S. SENATOR FROM THE STATE OF MAINE

Senator MUSKIE. Thank you very much, Mr. Chairman. I appreciate the opportunity to appear before this special subcommittee and testify this morning on S. 2511.

I also would like to express my gratitude to the chairman of the special subcommittee for his willingness to cosponsor this bill which is not, perhaps, one of the key pieces of legislation at this session, but I think it is a very important piece of legislation for the people who are affected.

Mr. Chairman, I have had a long and continuing interest in the new and revolutionary techniques which are being introduced into educational programs. The more I have studied the potential of new methods, particularly audiovisual aids, the more I have become convinced of the tremendous possibilities of this method in teaching the deaf.

Last year in testimony before the Senate Appropriations Committee I indicated my belief in the favorable impact an improved captioned films program would have on the welfare of this group of handicapped persons.

I would like to state that, with an additional year of experience in the present program, I am even more convinced of the necessity for this amendment.

The need for expanded educational opportunities for the deaf increases and the time has arrived to take some positive action to assist these handicapped persons.

In considering this legislation, we should look at the Federal program for the blind. The existing inequality between that program and the captioned films for the deaf program is clearly evident.

At the present time, the captioned films for the deaf program has a limited annual budget of $250,000. This represents $1 for each deaf person in the United States.

Compared with this sum, the talking books for the blind program in 1962 served 350,000 individuals at a cost of approximately $1.8 million, or a little over $5 for each blind person. The talking books program has an unlimited budget. In addition to Federal assistance, there are many charitable organizations, such as Columbia Lighthouse for the Blind, which are concerned with the special problems of the blind.

I in no way want to imply that assistance to the blind should be curtailed. I merely wish to indicate the wide gap between the two programs.

Enactment of S. 2511 would help to narrow the present inequity in assistance given to these two groups of handicapped individuals.

Under the present captioned films program, some 650 groups of deaf persons utilize the film distribution services. This figure is less than 10 percent of the total deaf population of approximately 250,000.

Currently the program has a mere 14 educational subjects, and some of these are actually more documentary than educational. The remaining subjects are solely entertainment by nature.

Commercial firms are not interested in producing captioned films because of the limited market. They are also not interested in exploring new techniques in the use of films for this special group. The film industry is not in a position to promote teacher training in more effective use of the films.

The present act contains no provision for research or for training personnel in the use of films for the deaf. These are critical and important areas which are forced to go neglected because of narrow budget limitations.

Unique educational problems are involved in teaching a person handicapped by deafness. This student requires better visual materials and more adequately trained teachers.

Teachers of the deaf are faced with unusual problems not always fully realized or understood by the lay public. A child who is either born deaf or rendered deaf at a very early age is inflicted with a double burden to bear throughout life. There is no normal way for such a child to learn how to communicate because sounds have no meaning for him.

By expanding the present captioned films program, it will be possible to enrich the lives of many more thousands of deaf children and adults. In considering this amendment, we must remember that the Nation benefits as well as the handicapped individual.

In fiscal year 1961, the appropriation for this program was only $185,000. In fiscal year 1962, the Senate saw fit to increase that amount to $250,000. This is the ceiling which has been placed on Public Law 85–905.

S. 2511 would amend Public Law 85–905 and would remove the $250,000 annual appropriation limitation.

The bill would permit the Federal Government to assume responsibility for the production of captioned films for the deaf. And I

repeat that this problem is a problem unique to this particular group of some 250,000 in the country.

It would authorize research in the use of education and training films for the deaf and would provide for training of persons in the use of those films.

Mr. Chairman, I sincerely believe that the proposed expansion of the existing program is important to the welfare and intellectual development of this group of American citizens. And as we all know, when better opportunities are afforded for educational advancement, better citizenship results.

I strongly urge the committee to take immediate and favorable action in regard to S. 2511.

Mr. Chairman, a few weeks ago John Gough, Chief of the captioned films for the deaf program, U.S. Office of Education, prepared an excellent brief, as I will call it, for my benefit and for the benefit of those of us who have been interested in this bill and this program.

I ask, Mr. Chairman, that this be made a part of the record at this point.

Senator PELL. That will be done.

(The brief referred to follows:)

CAPTIONED FILMS FOR THE DEAF

With 2 years of actual film distribution now completed, the captioned films for the deaf program presently serves 680 groups of deaf persons with subtitled motion pictures. The films are viewed by an audience averaging some 18,500 persons monthly. This represents less than 10 percent of a total deaf population estimated at 250,000.

To serve these people the Office of Education has acquired more than 100 captioned films with from 1 to 15 prints each. A total of 344 prints are in circulation. This growth from an initial gift of 29 prints from the American School for the Deaf has been accomplished on a budget which started at $15,000 in 1960 and reached the authorized maximum of $250,000 for the first time in 1962.

Demand for captioned films far outruns the present supply. Evidence in support of this statement is seen in the fact that practically all available prints are booked from 1 to 2 years in advance. The booking and shipping office at the Indiana School for the Deaf, Indianapolis, is forced to postpone or turn down many requests for film simply because of the limited size of the library.

Even more significantly, schools for the deaf, unable to make effective use of audiovisual materials provided for normally hearing children, stand in dire need of captioned teaching films. The seriousness of this situation is highlighted in preliminary conclusions from a national survey of visual education in American schools for the deaf conducted by Gallaudet College under the National Defense Education Act. The investigator says in part:

"About half of the schools for the deaf and more than half of the day classes for the deaf have no facilities for producing their own visual aids. Even where such facilities exist, they tend to be rudimentary. At the same time, the most frequent comment by the administrators who feel that their schools do not make sufficient use of visual aids is that their teachers lack the necessary training."

Yet "42 percent of the schools and 36 percent of the day classes make no provision for inservice training."

The report continues, showing, with reference to equipment, that most schools and classes are equipped to some degree and that the captioned films service of the Federal Government is the most frequent source of visual aid materials. It is pointed out, however, that the 200 or more day classes make little use of these films. On this point the report concludes: "The need for more publicity about this service among the classes is evident."

Actually, the real need is probably not for more publicity, but for more materials of an educational nature that will be of greater use in both schools and day classes. This need is further emphasized by the fact that 40 percent of the schools for the deaf use captioned films, only at infrequent intervals. As for uncaptioned film courses such as are used with hearing children, "80 percent of the schools and classes indicate no plan at all to try this medium."

To comprehend the importance of visual aids in the education of the deaf one must understand the double handicap inflicted by deafness occuring at birth or in infancy. Not only is the deaf child deprived of hearing ordinary sounds, he is deprived of all knowledge of language. Words and sentences, the basic coinage of communication, do not exist for him.

When the normal child or even the blind or otherwise physically handicapped child reaches school age he has a vocabulary of several thousand words. He can organize these words as sentences to express his thoughts and desires. For him to relate these meaningful sounds to the patterns of print, be it clear type or braille, is an experience that rapidly flourishes into skills which bring him into contact with the full range of his culture.

Contrast with this the plight of the deaf child. At 5 or 6 he does not know the name of any single thing—not one—not even his own name. He cannot form the simplest sentence. After a year in school he may know 50 to 100 words. After 10 to 12 years in school he will typically have a third or fourth grade reading ability.

But the severity of this educational retardation can be lessened. By expanding the deaf child's experiences through the use of films and by helping him to verbalize these experiences through printed captions, modern technology can bridge part of the communication gulf which separates the deaf from an adequate education. The introduction of these techniques is long overdue.

Deafness being a more serious educational handicap than blindness, one might suppose that the Federal Government would do more to support special means for educating the deaf than it does for educating the blind. The reverse, however, is true. The Federal program of talking books for the blind operates under an act which places no limit on the budget. In fiscal year 1962 the books for the blind program expended approximately $1,800,000 in serving an estimated total blind population of 350,000. The disparity between this and the current $250,000 budget for captioned films becomes even more apparent when considered in light of the fact that book publishers waive all royalty rights on books used for the talking books program whereas full length films normally carry a royalty of $600 per print for a 5-year lease. Similarily, educational films costing $60 per print include a royalty item which may run 75 percent of the purchase price.

In view of the severe educational problems of the deaf, and the acute need to provide better educational materials with strong visual impact, the importance of enlarging the captioned films program is amply clear. Not only is there a need to provide more films but to explore new techniques for more effective use. In some areas there is need to produce films that will meet special problems peculiar to those who do not hear. Training of people who are engaged in teaching and training the deaf in order that they will make better use of filmed materials is also needed. There is need, also, to study uses of television, teaching machines, and programed learning with the deaf.

Senator MUSKIE. I have expressed my interest in my remarks up to this point, and my remarks will not be much longer, Mr. Chairman, on the particular needs of the deaf. However, for a long time, in addition to their needs, I have been interested in the possibilities of audiovisual aids in the field of education. It seems to me their use has only scratched the surface of their potential. And in order to get this broader scope into the record, I would like to introduce the testimony given by Mr. Maurice B. Mitchell, president of Encyclopaedia Britannica, before the Senate Committee on Education, Commonwealth of Pennsylvania, on June 30, 1959.

Mr. Mitchell at the time of this hearing was president of Encyclopaedia Britannica Films, Inc., and is considered an expert in the field of audiovisual training. Although his statement is not concerned specifically with captioned films for the deaf, his comments on the use of films in the field of learning are particularly germane to S. 2511.

Senator PELL. Without objection, that will be made a part of the record.

(The statement of Mr. Mitchell follows:)

PREPARED STATEMENT BY MAURICE B. MITCHELL, PRESIDENT, ENCYCLOPAEDIA BRITANNICA FILMS, INC., WILMETTE, ILL.

Mr. Chairman and members of the committee, your committee, by its very existence, takes note of the fact that the problem of finding ways and means to meet the community's obligation to successfully educate its young people for life in a modern world is one of the gravest and most vexing we have faced in modern times.

I will not labor the obvious facts—that a rapidly rising birth rate and standard of living, an accelerated accumulation of knowledge, and the inability of existing institutions to adjust to these rapid changes have brought us to the brink of this greatest of social crises. You already know that our school facilities are crowded beyond present and future capacity, that the curriculum is reeling under the impact of our new knowledge of the phenomena of our world and our civilization, that there simply are not enough teachers and specialists in education to meet our needs, and finally, that we are all having trouble finding the money to apply to the solution of these problems.

I will, however, point to some special problems in education that are a product of the kind of world in which we live.

(1) We are accumulating new and vital knowledge at such a rapid rate and in so many different fields that the whole system of curriculum change and the instructional materials that support it are in danger of crashing down about us. They were not designed to rapidly accommodate the major revolution in the sciences we have had in the past two decades, to deal with the substantial and speedy changes now long overdue in mathematics, foreign languages, and the whole area of the social studies—with new concepts in geography, in history, in the whole area of humanities.

Curriculum change is largely dependent upon instructional materials. The new content and concepts must be reflected in materials used to teach teachers as well as students, and if the curriculum changes are to reflect contemporary knowledge, these new teaching tools must be flexible, easily and quickly produced, and subject to the widest possible use at all levels. There is good reason now to believe that the traditional instructional device, the textbook, cannot alone meet this challenge, and that we must incorporate in our list of basic teaching tools some of our modern communications devices.

(2) Our business and industrial community is reminding us, with increasing intensity, that we are now committed to a new kind of industrial revolution, characterized by a technology of a most complex sort, and that these devices must be manned and improved by a new kind of product of our educational process—technicians, engineers, scientists in quantities far beoynd anything we have contemplated in past generations.

(3) We face the problem of preserving the humanities in a technological society, of finding a way to pass along our precious heritage of freedom, of fostering the growth of our developing culture, of producing a balanced and humane society of men and women equipped not only to survive in this complex world but also to bring it leadership and to find contentment and fulfillment in their lives. We now know we must do this with inadequate resources in teachers for years to come.

(4) We face the very special challenge of these times—to adopt and use the 20th-century tools that lie all around us and have found their way into every major field of endeavor to solve the serious problems of modernizing our educational process at a cost that is within our means.

It is these very problems that are being solved today in many areas of our Nation—and, indeed, our globe—by the sound motion picture in the classroom. The tragedy is, perhaps, that the know-how has been at our fingertips for a quarter century and more, and that we have only just begun to use it in all its full force and effectiveness.

These are not new techniques in the classroom; the sound motion picture and filmstrip and other audiovisual aids have been with us for many years. They are so well established as modern tools of the educator that almost every nation of the Western World, with the exception of the United States, has established a national agency to insure their optimum development and utilization. England has its Foundation for Visual Aids in Education, Canada its National Film Board, Russia, with its Ministry of Cinematography, has given it near-Cabinet status.

The reports of reliable observers in Russia, by the way, indicate that no small part of their successes in their crash program of science education is due to the highly effective use they make of the sound film as an instructional tool.

This is certainly not to suggest that the use of such materials is unknown in the United States. On the contrary, we have in this country developed during

the past quarter of a century an impressive array of skills in the production and introduction of new audiovisual materials. A large number of organizations in this field are producing several hundred new sound motion pictures for the classroom each year in almost every subject matter area of the curriculum. We have developed skilled technicians in the interpretation of subject matter in motion picture form, and a most impressive array of subject matter specialists—scholars of eminence in their respective fields of learning, who have learned to assist in the planning and execution of film assignments in the precise and demanding field of producing motion pictures designed expressly for classroom use. And in the Nation's schools there has been developed, at the elementary, secondary, and higher education levels, a nucleus of skilled specialists in audiovisual education. These are the audiovisual directors of our schools and universities, who over the years have developed their own skills as teachers using these tools, and learned the administrative skills necessary for the operation of audiovisual programs.

The miracle is that this body of skills, talents, and experience is now ready at hand for our use, for it has developed in the face of almost every circumstance calculated to discourage its growth. There has been no coherent industrywide planning or research, no wide-scale administrative machinery for fostering the development and use of these materials, and organized provision for the training of educational specialists or the procurement of materials.

These are, as I have said, not new techniques in the classroom; this is one of their greatest advantages. The proposal that we encourage their widest possible use makes no suggestion that you give support to an experimental device which has yet to be proved, or one on which a tremendous amount of work must be done before it can be put to maximum use in all of the Nation's schools. The sound motion picture, since its beginnings more than a quarter of a century ago, has been tried and tested in the one place where such a test has the greatest significance—in the classroom, in a wide variety of teaching situations in literally every subject area in the curriculum of the public schools of this country.

HOW MOTION PICTURES CONTRIBUTE TO LEARNING

The logic of the motion picture in the classroom is so apparent as to almost make it unnecessary to labor the point. Few of us living in an age in which motion pictures and television have established the tremendous impact of simultaneous sight and sound in communications will deny that this force on the face of it must be a powerful one in education. It seems reasonable to assume that man's primary interest in using communications is for the purpose of education. In the days before any of our modern communications devices existed, man learned what he knew through the use of his eyes, his ears, and his voice. As the world grew larger, these facilities became less effective, and he began to devise substitutes. Perhaps the greatest of these was the printing press which 500 years ago, enabled him to use his newly found alphabet and system of numbers for the recording of facts and the dissemination of information and ideas. Over the years this substitute for direct communication grew and expanded in use, but it was always limited by the fact that many people never did learn to read—many people don't learn to read today, at least to the extent that their reading skills can be used for educational purposes beyond the primary areas—and few men were able to translate the message of the printed word into the meaningful mental pictures and sounds on which many key concepts are based.

With the advent of the motion picture, many of the most serious limitations to learning were brushed aside. Here are some of the things that the motion pictures in the classroom have done for teachers during the past quarter of a century:

1. Verbalism

The transfer of words from the printed page through the eye alone to the brain, their consequent memorization by students who frequently don't understand what they have memorized, is known as verbalism. This is the end result in all too many cases of the process of education in many subject areas. The student memorizes the theorem in geometry, recites it, and in some cases actually regurgitates it for examination purposes, but he has not had a meaningful experience, and in a very real sense, he has learned nothing at all. The sound motion picture, by giving meaning to abstract concepts, by giving reality to what would otherwise be a meaningless jumble of words, overcomes verbalism and stimulates real learning.

2. Common experience

Increasingly in today's classrooms the teacher faces a group of children from a wide variety of backgrounds. Some come from families with substantial means, others come from homes where a high educational level prevails and there are extensive resources to support the learning process. Some children have traveled, and others have not. Since teaching in classroom fashion is essentially a group activity, educators long ago learned that the process can only be fully effective when the children in the class have had some common experience—some single background against which the teacher can work, confident in the knowledge that each child has a frame of reference not unlike that of his classmates. The difficult, expensive, and cumbersome field trip has been, in the past, one technique for overcoming this. Now the sound motion picture, by taking the whole class at the same time through a single experience, whether it be an airplane trip, a visit to a farm or a particular industry, provides this background of common experience and tremendously increases the effectiveness of the teacher.

3. Motion

Many of the things we have to learn have motion. Some motion is complex and difficult to describe. Some motion, unless it can be seen, simply cannot be usefully imagined. Some things appear so vast that the ordinary human eye can't see them, while others take so long to happen that there would be no time to view them. Some of the things in motion are so small that only the most powerful microscope could make them visible, while other forms of motion take place within solid objects under conditions which would make viewing dangerous or impossible. Yet the motion picture draws upon the magic of slow motion photography, time-lapse photography, of photomicrography and X-ray photography, as well as animation, to solve all of these problems and many more besides. The child to whom "metamorphosis" would be a tremendously difficult word to learn, suddenly realizes that it's a pretty easy word after all, after seeing in just a few moments the miracle of the transformation of a caterpillar to a butterfly through the magic of the time-lapse camera.

The ability to synthesize some events in time and space is literally exclusive with the motion picture camera. There are some elements of instruction that can only be effectively presented in this manner. They not only include the obvious items mentioned above, but encompass also such areas as geography, history, and other social studies areas. A pupil who can view two widely separated geographical areas within a few moments, or watch the reenactment of a vital period or episode in history, is being exposed to an educational communication of lasting effectiveness.

4. Reading limitations

Not every student can read, and our educators are learning that there are different levels of reading ability. Some children who can read comic books, for example, can't read an arithmetic problem or a page in a history or science textbook. Some who do very well with literature cannot deal with technical materials, and vice versa. The great majority of these poor readers have substantial learning skills and they could be brought along in the process of education to a higher level than many of them presently reach. The sound motion picture, of course, communicates to all of them with equal effectiveness. It knows no limitations in its ability to communicate to people of all kinds of reading skills, and indeed, by giving the poor reader a sense of learning accomplishment, it often contributes to an increased desire to learn to read better.

This ability of the motion picture to communicate with people who cannot read, incidentally, is one of its major attractions in areas of the world outside of the United States where there is a low level of literacy and a great job of public education to be done. I would like to emphasize here that American educational motion pictures are being used on a constantly increasing scale around the world, and that they are one of our most impressive ambassadors of good will in areas where the ordinary kinds of propaganda have made little or no impression. We are building on a sound basis when a child in India or Thailand gains his first understanding of magnetism, electricity, or life in the United States by seeing an American-made classroom film.

5. Teacher training

As we have changed the American curriculum in recent years, we have placed tremendous burdens upon the existing force of teachers. When we decided to teach science at lower levels in elementary schools, for example, we recognized the fact that it was literally impossible to train the teachers at those grade levels in the rudiments of science. Many of them learned their basic science by watching the

very sound motion pictures they depended upon to teach their classes. More important than that, teachers in most subject areas who were fortunate enough to have access to films were able to keep themselves current in developments in their subject areas by using these films. The textbook is too costly to be quickly discarded, nor is it easily and frequently revised. The overburdened teacher, whose responsibilities not only include work in the classroom but a tremendous amount of housekeeping and other tasks, rarely has the time to keep current on new subject matter developments. If the film, which can be produced quickly and which is frequently revised and exchanged at little or no cost to the educator, is slowly becoming the source of new information for the Nation's teachers, it is entirely possible that major changes in the curriculum of the future may be made largely through films.

6. The past and the distant

We know that if we are to educate our children to live in an age with global implications and to contribute to the preservation of democracy, we must teach them about the ways of life around the world and impress on them the great heritage that has come to them through the ages through history and particularly through the development of freedom that has been a characteristic of our great Nation. This is a task that poses tremendous problems for the older techniques of education, which depend largely upon personal exposition and the use of reading materials. Yet the camera, with its unique ability to visit the far corners of the world and bring back rich images, and with its added ability to reenact the great events of the historic past, makes a great contribution in these two significant areas. The child in an American classroom can visit the home of a youngster in Italy, see how he lives, what it is like in his classroom, how his father earns a living and his mother keeps house. He can live again the moment when Benjamin Franklin addressed the delegation in Philadelphia that produced the Declaration of Independence and identify himself and his attitudes with the great men in history as they faced the challenges that have produced our heritage.

7. Cost

It is difficult to describe the relative cost of sound motion pictures as compared with other materials of instruction, but there is considerable evidence to indicate that the cost of a film in terms of the number of students who use it and benefit from it is no greater—and in most cases is actually smaller—than the cost of other instructional materials, including books. This is not an argument in favor of films as opposed to books, but it does indicate that there are no important obstacles in terms of great expense to the use of a sound motion picture as an everyday tool in the classroom.

Most important, however, is the growing realization that proper use of films for group instruction may open the door to major economies in the teaching process. The use of complete science courses on film, for example, has already resulted in better education for larger numbers of students at a cost level that is precedent-making.

8. Other advantages

Time and space simply do not permit the further discussion of the advantages of the motion picture in the classroom. Some of these, indeed, are so obvious as to hardly require discussion. The communication takes place under conditions which produce maximum attention. The motion picture reproduces life in sparkling color, which not only contributes to greater attention but also approaches reality to a degree simply not possible under any other circumstances. The teacher retains at all times complete control of the pace and progress of the communication. She can preview the film in advance of the class and decide how best to use it. She can edit it so that only that particular portion that applies to her problem is shown to the class. She can turn off the sound track and let the class share with her the experience of explaining what is happening on the screen. She can run the film a second time at her convenience to underline the importance of some aspects of the subject matter. Indeed, the limitations to the use of this impressive instructional device are only those which would limit the imagination and skills of the teacher herself.

THE SCIENCES

Because there is great current interest in techniques that would improve and broaden teaching in the field of the sciences, perhaps some special mention of this area should be made at this time. I think it is evident from what I have said before that motion pictures can be used in all areas of the curriculum, and indeed

this is one of their advantages because there would be many drawbacks to the development of any specialized teaching tool that was of value only in the science field; but it is also true that classroom films have made one of their greatest contributions since the very beginning in the area of science. The earliest films dealt with this complex and difficult subject, and they did some things that had never before been possible in the classroom. In biology, for example, they showed youngsters the human heart and circulatory system in a manner not possible in the classroom without an actual living body. Through actual photography they explained the miracles of digestion and the operation of the human body. In every field of science, using every technique of the filmic art, they explored difficult subject matter, abstract concepts, and contributed richly to the solution of teaching problems.

In recent years, as physics has become one of our most significant science areas, impressive work has been done in the film field. My own organization, in cooperation with the Fund for the Advancement of Education of the Ford Foundation, 2 years ago released the first complete science course in the American curriculum—indeed, in any curriculum—ever to be produced entirely on film. This course has been taught in approximately 500 American schools in a wide variety of circumstances. It consists of 162 half-hour films in which a great physics teacher, Dr. Harvey White of the University of California at Berkeley, conducts lectures, lecture demonstrations and laboratory experiments 5 days a week throughout the school year. In school systems where only one or two good physics teachers are available, these films have been used to relieve them of a tremendous amount of the housekeeping work involved in conducting experiments and putting on group demonstrations, and it has freed many of them to accept larger classes and deal more effectively with individual students. In situations where there are simply no physics teachers at all, the course is actually teaching students successfully, and students who take subsequent achievement tests following exposure to these films seem to fare as well as many students who have been taught in the ordinary process.

During the past year, working in close collaboration with the American Chemical Society, we produced and have just released a second complete film course, the introductory course in chemistry at the senior high school level. Preliminary tests in more than a dozen school systems indicate that this effort is even more successful than its predecessor. Here again, a master teacher—Dr. John Baxter—chosen by his own colleagues in science education, working closely with a team of specialists and consultants, has succeeded in bringing a level of teaching skill and a variety of teaching resources into this critical field on a scale simply not possible under other procedures.

We are now at work in at least two other important subject areas—biology and the humanities. The first 12 films in a proposed humanities course designed to replace the present 11th year English course have been filmed and extensively tested, and work will proceed on this project during the coming year.

In every area in which we have had an opportunity to study the results from the use of complete courses on film, the findings have clearly indicated that students taught in this fashion will do as well, if not better, on standard achievement tests than those taught by conventional methods. There is evidence that teachers, exposed to these films, improve their own abilities. The students enjoy and respond to this new learning technique, and we have already seen many of them, going on to college, excel in physics (for example) in the company of classmates who took their introductory science in a conventional manner.

There is reason to believe, therefore, that the development of complete courses on film may be a significant answer to some of our gravest problems in the science teaching field.

IN SUMMARY

My goal in this testimony has been to illustrate the need for bold and constructive action in the use of our modern resources in instructional materials to meet the needs of the modern educational process.

The important thing is that these new and powerful materials already exist—they do not have to be invented—and we do not have to tear our system apart to use them. Our teachers want them. There are great human resources available, too, in the persons of the many trained, competent audiovisual specialists in the Commonwealth of Pennsylvania. They represent a precious nucleus of skills in the use and distribution of these materials.

The action to be taken has been brilliantly outlined by Dr. Charles Boehm, your chief educational officer. His recommendation for cooperative action in the forming of strategically placed film libraries is sound, modern, and in the

direction in which maximum results have been achieved elsewhere. His leadership in this entire area of utilizing modern communications techniques to build a better school system within the long-range means of the community has earned him the admiration and respect of modern educational administrators everywhere. I associate myself with his program without reservation.

Any educator who supports widespread use of educational films in the classrooms of the Commonwealth speaks both for the teachers and the community. Dr. Boehm's program deserves the fullest support, and I respectfully suggest that you will be doing a great service to those who want to meet the challenge of our times in education if your recommendations and findings include his audiovisual program.

Senator MUSKIE. In the expectation, Mr. Chairman, that S. 2511 is enacted, we will be breaking ground in this important technological field for the benefit of this limited group of deaf persons, and I would like Mr. Mitchell's testimony in the record as perhaps a sign of better things to come in the use of modern technology and modern technological aids in the field of education. Thank you very much, Mr. Chairman.

(The prepared statement of Hon. John E. Fogarty follows:)

PREPARED STATEMENT OF HON. JOHN E. FOGARTY, A MEMBER OF THE HOUSE OF REPRESENTATIVES FROM THE STATE OF RHODE ISLAND

Mr. FOGARTY. At this critical time in our Nation, when we are laying the groundwork for a frontal attack upon the problems of education, old age, and unemployment to name a few, it is appropriate that we should give further consideration to our physically handicapped citizens. These citizens are involved in a lifelong struggle to lead as normal a life as possible. They have the same hopes, the same desires, and aspire to the same heights as other citizens.

In their struggle for normal lives, an important new aid has been afforded the deaf through the medium of captioned films. The limited Federal program which makes available captioned films for the deaf has been in operation for slightly over a period of 2 years. Established under Public Law 85–905, this program has demonstrated its vital importance in helping to overcome the isolation which blights the lives of many deaf people.

Captioned films are emerging as a most significant educational tool for use with the deaf of all ages. The scope of the present captioned films statute is too limited, however, to permit this new medium to achieve full realization of its capabilities. There is need not only for expansion of present budgetary support but for a broadening of program objectives.

At present, captioned films reach some 9,000 persons in 640 organized groups of deaf persons per month. This figure is but a tiny fraction of the total deaf population estimated at 250,000 persons. Filmed subjects offered to this audience include approximately 60 older Hollywood feature pictures, and a tiny handful of educational subjects. So meager is the supply of materials that groups registered for service are obliged to request films as much as 2 years in advance in order to get service. There simply are not enough prints to go around.

To meet this situation in which probably less than one-fifth of the intended audience is being reached, S. 2511 and my identical companion measure, H.R. 9456, propose to remove the budget ceiling of $250,000 from the captioned-films service. They propose expansion of the program so that all deaf citizens—young and old—can enjoy the educational and cultural stimulation of captioned films. They provide programs of research, development, and training which will further enhance the use of this new medium for the advancement of the deaf.

Passage of S. 2511 is imperative as a minimum guarantee that those who are deaf shall not fall behind in the modern drive for a better educated and more effective citizenry. Although it is true that the deaf are but a small minority, they, too, have a contribution to make. It is our responsibility to provide them with the means of self-improvement in order that they may realize their maximum capabilities. In so doing, the Congress will have served not only these handicapped citizens but the entire Nation.

According to information recently supplied by the Office of Education, an expanded film program of the dimensions contemplated under S. 2511 could provide multiple prints of 50 educational films per year in quantities sufficient to reach every one of the more than 400 schools for the deaf in the United States.

It could provide filmstrips in like quantities and covering not less than 100 titles per year. At the same time it could supply from 40 to 50 feature films per year in quantities to serve a substantial majority of the adult deaf population. Continuation over a period of 5 years could result in a film library of extent and diversity to serve the entire deaf population of all ages with captioned films.

In the area of production, specialized educational and training films and filmstrips to deal with problems peculiar to the deaf such as speech, speech reading, auditory training, and retraining for job placement will be produced at the rate of five per month to service some 25,000 deaf schoolchildren and an undetermined number of deaf adults conservatively estimated at 5,000 to 8,000 annually.

At the same time such an expanded program will finance research in related technical matters, standards for development and use of filmed teaching techniques, utilization of other newer media including television and programed learning, and basic curriculum problems of schools and adult education programs as related to films.

Finally, the contemplated program will include concentrated courses of training for parents of deaf children, rehabilitation workers, and others to familiarize them with the materials made available by this act and to facilitate and extend the use of the various media for elevating the whole educational status of the deaf population. The comprehensive program authorized by S. 2511 can be had for less than $2 million per year. It is a small price for a service that can lift the deaf out of second-class citizenship to which they are now relegated.

Senator PELL. Senator Yarborough, do you wish to make a statement?

Senator YARBOROUGH. Mr. Chairman, I desire to commend the chairman and Senator Muskie for the coauthorship of S. 2511.

I think Senator Muskie has well pointed out the inequity of appropriations. Also there is the particularly valuable statistic in connection with the statement just made by Chairman Pell, that is not commonly understood that the deaf child, in comparison for instance to the blind child, has a much more difficult learning process.

I am personally acquainted with a member of the University of Texas faculty—he was formerly on the Columbia faculty—and have heard him lecture on extrasensory perception, and one question he asks of his class, of his audience, is, "If you had your choice, if you knew in advance you would be born blind or deaf, which would you choose?"

Practically every person who has both hearing and vision says, "Well, I would prefer to be born deaf."

And he will say, "You are mistaken; a child who is born blind has a better opportunity for leading a more nearly normal life than a child born deaf through the benefits of the learning process with the use of hearing."

Now that has been ably pointed out by the chairman, and that is not generally understood. And I think the need for this is great.

My interest has been further heightened over the years by personal acquaintance with Mrs. Joseph Jones of this city who is a great-granddaughter of Alexander Graham Bell, who was a teacher of the deaf. Alexander Graham Bell stumbled on his invention of the telephone accidentally by working with devices for teaching the deaf. That family has been interested in the problems of teaching the deaf. His father was a teacher of the deaf.

So through these acquaintanceships and experiences, what I have learned through these and other sources, I am very much interested in this problem, and I want to commend Senators Muskie and Pell for the introduction and sponsorship of this measure.

Senator Muskie, I am very much interested in what you say about audiovisual aids. The Subcommittee on Education received much

valuable testimony on this point in the hearings on the National Defense Education Act in 1958, which provided for more extensive use of audiovisual aids than the measure that finally passed. The measure was amended in many respects and stripped down in the House and Senate before finally being passed.

The Encyclopedia Britannica representative who testified there, as did others, performed visual demonstrations before us showing the value of these audiovisual aids to teaching.

It is a pleasure to be on this subcommittee, Mr. Chairman. I want to say to the witnesses listed here that I would like very much to hear every one of them, but I am on another committee that meets at 10:30, at which a Cabinet officer is testifying and protocol requires that we give precedence to those meetings. So it is with great regret that I will be forced to leave here at 10:30.

Thank you, Mr. Chairman, for your leadership on this subcommittee.

Senator PELL. Senator Tower, you are a former teacher and, I know, interested in this field, I wonder if you might care to make any comments?

Senator TOWER. I am convinced of the merits of this program myself, and would like to commend the chairman on his leadership in this matter.

Like Senator Yarborough, I have a conflicting committee meeting, going on right now, and I must attend that.

I would like to say that I throw my support, for whatever it is worth, behind Senators Pell and Muskie. I am very sorry I will not be able to stay for all the testimony, but will have the benefit of the transcript.

Senator PELL. Thank you, Senator Tower.

I, as chairman, would like to pay tribute to Senator Muskie who has had this idea and taken the leadership in it in the past and without whom the bill would not be in being.

I would like to put into the record at this time a letter that Senator Williams, who is also a member of the subcommittee, but unable to be with us this morning, asked to be placed in the record.

The letter is from Mr. Robert Winalski who gives his support to this bill.

(The letter from Mr. Winalski follows:)

Senator HARRISON A. WILLIAMS., Jr.,
U.S. Senate, Washington, D.C.

DEAR SENATOR WILLIAMS: As one of your constituents I respectfully urge that you support a bill before the Senate, S. 2511. This bill expands the administration of captioned films for the deaf.

As the parent of a young man handicapped with deafness who will be entering Gallaudet College this fall, I know the value of this media which has previously been used only in recreational programs. Through research and development it has been demonstrated that there is much value in this media for educational purposes. The use of films and filmstrips in the classroom for the deaf would be forceful visual aids. There are 1,000 deaf children who attend the residential school at Trenton and the day classes in Jersey City, Newark, Paterson, and Woodbridge, who need your support of this legislation for the better educational opportunities it offers them.

Sincerely,

ROBERT H. WINALSKI,
Belleville, N.J.

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Senator PELL. Now I would like to call as our next witness the Assistant Commissioner of the Office of Education, Department of Health, Education, and Welfare, Mr. Muirhead, and also Mr. John A. Gough.

STATEMENT OF PETER MUIRHEAD, ASSISTANT COMMISSIONER, OFFICE OF EDUCATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE; ACCOMPANIED BY JOHN A. GOUGH, CHIEF, CAPTIONED FILMS SECTION, OFFICE OF EDUCATION, HEW

Senator PELL. Do you want to start off and introduce yourself for the record, sir?

Mr. MUIRHEAD. Mr. Chairman, I am Peter Muirhead, Assistant Commissioner for Education. I am accompanied by Mr. John Gough, who is the Chief of the Captioned Films Section in the Office of Education.

We are both privileged and pleased to appear before your committee in support of this bill to provide for the production and distribution of educational and training films for use by deaf persons and other purposes.

I should like to report to you, Mr. Chairman, that at the request of the chairman of the committee we have submitted a report in favor of this bill, and with your permission I should like to make a short statement in harmony with that report, indicating, our support of the bill.

Senator PELL. In addition to that, I imagine you would like the statement itself put in the record?

Mr. MUIRHEAD. We would be pleased to have that, Mr. Chairman.

Senator PELL. It will be done.

(S. 2511 and a report from the Department of Health, Education, and Welfare follow:)

[S. 2511, 87th Cong., 1st sess.]

A BILL To provide for the production and distribution of educational and training films for use by deaf persons, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That (a) the first section of the Act entitled "An Act to provide in the Department of Health, Education, and Welfare for a loan service of captioned films for the deaf", approved September 2, 1958 (72 Stat. 1742), is amended to read as follows:

That the objectives of this Act are—

"(a) to promote the general welfare of deaf persons by (1) bringing to such persons understanding and appreciation of those films which play such an important part in the general and cultural advancement of hearing persons, (2) providing, through these films, enriched educational and cultural experiences through which deaf persons can be brought into better touch with the realities of their environoment, and (3) providing a wholesome and rewarding experience which deaf persons may share together; and

"(b) to promote the educational advancement of deaf persons by (1) carrying on research in the use of educational and training films for the deaf, (2) producing and distributing educational and training films for the deaf, and (3) training persons in the use of films for the deaf."

(b) Section 4 of such Act is amended to read as follows:

"SEC. 4. There are hereby authorized to be appropriated for each fiscal year such funds as may be necessary to carry out the objectives of this Act."

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,
Washington, May 21, 1962.

Hon. LISTER HILL,
Chairman, Senate Committee on Labor and Public Welfare,
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your request of September 8, 1961, for a report on S. 2511, a bill to provide for the production and distribution of educational and training films for use by deaf persons, and for other purposes.

This bill would amend Public Law 85–905, which authorizes an annual appropriation of $250,000 to provide for the establishment of a loan service of captioned films available to groups of deaf persons for nonprofit purposes of an educational and cultural character. The Secretary is authorized to acquire appropriate films, provide for their captioning, and arrange for their distribution. The act is administered by the Commissioner of Education.

The amendments that would be made by S. 2511 would authorize the conduct of research in the use of educational and training films for the deaf, the production and distribution of such films, and the training of persons in the use of films for the deaf. The act would also be amended to remove the annual appropriation ceiling of $250,000.

The program authorized by the existing act now serves 640 organized groups of deaf persons in the United States. This number is steadily increasing. It represents about 25,000 deaf schoolchildren and a total annual audience of more than 92,000 deaf persons. The demand for the films continues to expand and as educators observe the response of deaf groups to this medium the conviction grows that captioned films have a much wider use for the deaf than is now being achieved. This conviction was voiced by leading educator of the deaf at the conclusion of a conference held by the Office of Education in Washington, D.C., on December 7–8, 1961. In a statement of conclusions and recommendations, the conferees recommended broadening of the existing act along lines parallel to S. 2511.

Experience with captioned films indicates the need for research in a number of areas relating to their use. Among these are: Standards of captioning and techniques of projection; the development of experimental films utilizing animation and other special techniques; and the most effective utilization of films in the education and training of deaf children and adults. Such research is unlikely to be initiated in the absence of specific provisions to encourage it because a major portion of the kinds of research needed has a very limited applicability outside this special field of inquiry. Moreover, there is a need for the production of films to train the deaf in those specialized areas of speech reading, speech, language development, and social adjustment of the hearing handicapped. This need is unlikely to be met commercially because of the limited market for the distribution of such films.

For the above reasons we recommend that the bill be enacted.

We are advised by the Bureau of the Budget that there is no objection to the presentation of this report from the standpoint of the administration's program.

Sincerely,

WILBUR J. COHEN,
Assistant Secretary.

Captioned films for the deaf

	1963	1964	1965	1966	1967
Authorization [1]					
New obligational authority:					
Production and distribution of films	$880,000	$1,095,000	$1,170,000	$1,280,000	$1,370,000
Research and training	325,000	345,000	370,000	390,000	400,000
Total new obligational authority	1,205,000	1,440,000	1,540,000	1,670,000	1,770,000
Expenditures:					
Production and distribution of films	660,000	1,041,000	1,151,500	1,252,500	1,347,000
Research and training	200,000	343,000	367,500	388,000	399,000
Total expenditures	860,000	1,384,000	1,519,000	1,640,500	1,746,000
Administrative expenses:					
Obligations:					
Personal services	71,000	89,000	89,000	89,000	89,000
Other	49,000	40,000	40,000	40,000	40,000
Total new obligational authority	120,000	129,000	129,000	129,000	129,000
Expenditures	108,000	128,000	129,000	129,000	129,000
Number of positions	11	11	11	11	11
Man-years of employment	9	12	12	12	12

[1] Amounts authorized as necessary.

Mr. MUIRHEAD. We would like to add our voice to the very eloquent statement of Senator Muskie in support of this very promising piece of legislation.

The bill would amend Public Law 85–905 which authorizes an annual appropriation of $250,000 to provide for the establishment of a loan service of captioned films available to groups of deaf persons for nonprofit purposes of an educational and cultural character.

Under this bill the Secretary is authorized to acquire appropriate films, provide for their captioning, and arrange for their distribution. The act at the present time is administered by the Commissioner of Education.

The amendments proposed by S. 2511 would authorize the conduct of research in the use of educational and training films for the deaf, the production and distribution of such films, and the training of persons in the use of films for the deaf. The act would also be amended to remove the annual appropriations ceiling of $250,000.

We would like to report that the program authorized by the existing act now serves 640 organized groups of deaf persons in the United States. This number is steadily increasing. It represents about 25,000 deaf schoolchildren and a total annual audience of more than 92,000 deaf persons. The demand for the films continues to expand, and as educators observe the response of deaf groups to this medium, the conviction grows that captioned films have a much wider use for the deaf than is now being achieved.

This conviction was voiced by leading educators of the deaf at the conclusion of a conference held by the Office of Education in Washington, D.C. In a statement of conclusions and recommendations the conferees recommended broadening of the existing act along lines parallel to S. 2511.

Mr. Chairman, with your permission I should like to have put into the record the report of that conference and their recommendations.

Senator PELL. Without objection, that will be done.

(The report referred to follows:)

CONFERENCE ON UTILIZATION OF CAPTIONED FILMS FOR THE DEAF, DECEMBER 7 AND 8, 1961

CONCLUSIONS AND RECOMMENDATIONS

The conference finds that the captioned films program is making remarkable progress within existing limitations. At the same time it is recognized that captioned films have an educative potential for the deaf which is largely undeveloped. Therefore, it is recommended as follows:

I. While recognizing the need for very substantial increases in the number and variety of films of broad popular appeal, the conference believes that there is an equally urgent need for more captioned teaching films. The program must be expanded to meet this need if the deaf are to hold their own on a general educational front which is pushing forward steadily through application of new media.

II. In the matter of indicating priorities as to types of educational films, it is the consensus of the conference that films for social studies teaching at the upper primary and lower intermediate levels are of first importance. It is recommended further that films for other grade levels in the same and other areas be added as rapidly as possible to provide a demonstration in one subject area of the efficacy of captioned films techniques for the entire span of the curriculum.

III. The conference further endorses a broadening of the scope of the program—

(*a*) To permit the support, under grant or contract, of research concerned with the production and utilization of captioned films and related materials in teaching the deaf and that for purposes of determining the funding of research grants there be established an advisory committee within the captioned films section.

(*b*) To permit the conducting of demonstrations, training conferences, and institutes and the dissemination of visual aid or filmed materials to encourage and assist in the more effective use of materials made available through the captioned films program.

(*c*) To permit the production of such specialized films as may be required for purposes of research into the problems of the deaf and for providing more adequate educational and cultural materials for the deaf.

(*d*) To include in the captioned films program the opportunity to utilize the advances in other new media areas of a visual nature.

IV. It is further recommended that any legislation enacted to expand and improve the captioned films service for the deaf should clothe the appropriate administrative agency with authority and funds sufficient to carry out the purposes set forth above.

Mr. MUIRHEAD. Experience with captioned films indicates the need for research in a number of areas relating to their use. Among these are standards of captioning and techniques of projection, the development of experimental films utilizing animation and other special techniques, and the most effective utilization of films in the education and training of deaf children and adults. Such research is unlikely to be initiated in the absence of specific provisions to encourage it because a major portion of the kinds of research needed has a very limited applicability outside this special field of inquiry.

Moreover, there is a need for the production of films to train the deaf in those specialized areas of speech reading, speech, language development, and social adjustment of the hearing handicapped. This need is unlikely to be met commercially because of the limited market for the distribution of such films.

We are pleased, Mr. Chairman, to appear before you in support of this bill and we would like to recommend the bill be enacted.

Senator PELL. Thank you very much, Mr. Muirhead.

I wonder if Mr. Gough has any statement to give to the record? And we thank him very much indeed for the statement submitted to Senator Muskie for the record.

Mr. GOUGH. Thank you, Mr. Chairman.

I might make three brief observations, one suggested by the comments of Senator Yarborough in connection with Alexander Graham Bell's invention of the telephone.

Alexander Graham Bell was a teacher of the deaf and also had a wife who was deaf, as I am sure the Senator is aware.

This whole picture of communications has taken tremendous strides since the invention of the telephone, and we live in an age which is characterized by very rapid advances in communications of all kinds, particularly through the mass media such as television and radio. But the fact is, as far as the deaf person is concerned, that his position is relatively worse, and worse in the communications picture because increasingly the media through which people are reached leave him more isolated.

So when you assess the whole circumstance of the deaf person's life, he is losing ground. It seems to me it is high time that we directed at least some of the technological information, equipment, and skills that we have at the present time toward helping establish a position where he will be more nearly on a par and able to go forward. I feel that captioned films offer one such means.

Secondly, I think we need to recognize the fact that we are in an age when education, generally speaking, is struggling to break bonds that have held it back. We are looking toward many new programs and a great deal of research to forward education generally. Here again I think it is true that the deaf person, because of a more or less static condition in the education of the deaf, is falling behind.

So on these two counts he is at a great disadvantage.

A third point of rather general significance in the whole pattern of the adjustment of people to their social and economic life was cited in Fortune magazine and then reprinted in Reader's Digest, where I chanced on these figures. Since 1947 white collar employment has gone up 43 percent as opposed to an increase of 14 percent in so-called blue collar employment or the service trades. Characteristically, because of an educational lag, the deaf person belongs to this latter group for the most part. We do have some who achieve professional status but they are a relatively small part of the deaf population.

Consequently, the opportunities for employment are limited for the deaf person and becoming more so as we become a more highly skilled populace. The opportunity for better training, for better vocational adjustment, for better personal and social adjustment that might flow from the captioned films seem to me to be a very real need that grows more acute as time goes on.

It is a pleasure to have the opportunity to speak on this and I thank you very much, indeed, sir.

Senator PELL. Thank you very much, gentlemen.

Do you have any questions, Senator Yarborough?

Senator YARBOROUGH. No, thank you, Mr. Chairman. I regret that I am required to go to the other committee.

Senator PELL. Thank you, Senator. It was very nice of you to be here.

Senator Muskie, do you have any questions?

Senator MUSKIE. I would like to say I appreciate the cooperation I have had from Mr. Gough over the last couple of years in educating me on the educational needs of the deaf. I do not know whether

there will be in the record before this morning's testimony is completed some picture of educational opportunities that are available to the deaf persons in the country. I wonder if this might be the appropriate time to get at least a thumbnail sketch? I would be interested in seeing in the record, not only a thumbnail sketch of the opportunities available, but the extent to which teaching techniques, teaching methods have progressed and advanced over the years to improve the educational status of deaf persons.

Mr. GOUGH. May I reply to that?

With regard to the facilities that are available, there are approximately, I think, 100 schools for the deaf which deal strictly with deaf children. Most of these are residential in nature, such as the State school in your own State of Maine at Baxter Island, or the school in Providence, R.I. All over the country there are State schools for the deaf and a number of private schools.

Senator MUSKIE. How many students?

Mr. GOUGH. Altogether there are approximately 27,000, I believe. These figures are published each year in the American Annals of the Deaf. If recollection serves me right the total is about 27,000.

Senator MUSKIE. Are these schools both secondary and primary?

Mr. GOUGH. They are mostly primary schools, taking youngsters through junior high school. The better student gets through junior high school and some complete high school. But these are uncommon. There are not too many actual high school graduates from the schools for the deaf.

Senator MUSKIE. Are all these schools publicly supported to some degree, or are some of them——

Mr. GOUGH. Some of them are private, but the great bulk of them are publicly supported.

In addition to those schools for the deaf there are what we call day classes and day schools. These are small groups of deaf children that are gathered together in metropolitan centers. Frequently they are similar to a one-room country school, you might say, because such a class often has quite an age spread.

Senator MUSKIE. Is the capacity of these schools sufficient to provide the demand?

Mr. GOUGH. The capacity, I would be inclined to say, is perhaps sufficient. The deficiency of teachers is the thing the Congress has already recognized in the passage of a special bill to provide teachers of the deaf, to recruit and train them. This, as you know, is going forward at the present time, but the shortage of teachers is still a very severe problem in the education of the deaf.

Senator MUSKIE. I wonder if you would like to comment on the techniques for teaching?

Mr. GOUGH. The techniques have advanced in the education of the deaf. One of the big steps forward has been the use of high-powered group hearing aids in recent years. This has been a great step forward for those who have some remnant of hearing. There have been systems of language training devised and there have been a number of forward steps. This basic problem of language instruction has really not yet been cracked. This is the stone wall, you might say, that we come up against. Research that has been done on this problem is not too plentiful, and the materials provided for teachers of the deaf are extremely limited.

So there are great needs here and problems that we need to face resolutely if we are going to make a good job of teaching the deaf.

Senator MUSKIE. What is the basic problem in that connection?

Mr. GOUGH. The basic problem in——

Senator MUSKIE. The language?

Mr. GOUGH. Language? Well, No. 1, it is simply the fact that the child has no normal patterns of language such as we hearing people acquire through hearing. Consequently, when he does acquire a vocabulary, which he must do from the ground up, he has no sense of how these words should be put together in order to get them to convey the meaning that he has. This is a very slow and laborious process when you do not have the hearing background for language as a basis upon which to build.

Senator MUSKIE. Do you think the educational aids might be an answer to this particular problem?

Mr. GOUGH. Educational aids?

Senator MUSKIE. Films.

Mr. GOUGH. Films might be a very real help for the reason that we learn language in environmental situations where we hear the words attached to the substance of what we are observing. The deaf child is very limited in this. He does not receive the words and consequently a great deal of what he sees is not really comprehended. Consequently, if we can have films that are carefully planned, and verbalization to go with them, we think we can overcome the language handicap by this means. It seems a very promising device.

Senator MUSKIE. As a matter of fact, all teaching techniques for the deaf are aimed at the fact he has the use of his sight; is that not so?

Mr. GOUGH. Necessarily, plus the fact that there is some auditory training. But, in the main, it is visual.

Senator MUSKIE. So what we propose to do with these films is to make use of, or expand upon techniques that are already being used and depended upon very largely to teach the deaf?

Mr. GOUGH. And as you imply, I think, to do what we do in all habilitation and rehabilitation of handicapped people; namely, to build on the strengths that they have, which in this case, of course, is vision.

Senator MUSKIE. Thank you very much.

I thought this little background may be useful as a preface to the rest of the testimony.

Senator PELL. Thank you.

There is one further question that comes to mind in connection with this colloquy. That is, what portion of the totally deaf are also blind?

Mr. GOUGH. This is a very small percentage. The last figures I saw on this are not up to date, but it seems to me there are probably 600 people in the country who are deaf-blind.

Senator PELL. So in other words, this program would be of real help to the vast majority of the totally deaf.

Mr. GOUGH. It certainly would.

Senator PELL. Thank you very much, Mr. Muirhead and Mr. Gough.

Now we will call the next five witnesses as a panel:

Mr. Lloyd Ambrosen, superintendent of Maryland School for the Deaf, and vice president, Convention of American Instructors of the

Deaf; Mr. John Y. Crouter, principal, Rhode Island School for the Deaf, Providence, R.I.; Dr. William McClure, superintendent, Indiana School for the Deaf and president, Conference of Executives of American Schools for the Deaf, Indianapolis, Ind.; Dr. Harley Z. Wooden, associate executive secretary, Council for Exceptional Children, Arlington, Va.; and Mr. Joseph P. Youngs, Jr., superintendent, Governor Baxter State School for the Deaf, Portland, Maine.

Would you come forward, gentlemen.

Dr. McClure, I wonder if you would identify yourself and start out, and introduce your colleagues as you go along.

Dr. McCLURE. Yes, indeed.

STATEMENT OF DR. WILLIAM McCLURE, SUPERINTENDENT, INDIANA SCHOOL FOR THE DEAF AND PRESIDENT, CONFERENCE OF EXECUTIVES OF AMERICAN SCHOOLS FOR THE DEAF, INDIANAPOLIS, IND.

Dr. McCLURE. It is a pleasure for me to appear before this committee and the other visitors present in support of S. 2511.

As a matter of background, I think I should say I am a native Missourian, but I am presently superintendent of the Indiana School for the Deaf. Prior to that I was superintendent of the Tennessee State School for the Deaf at Knoxville, Tenn. I began my work in educating the deaf as a member of the faculty of Gallaudet College here in Washington.

I am also president of the Conference of Executives of American Schools for the Deaf, an organization established in 1868 to promote the education of the deaf along the widest and most effective lines, and also to work for the betterment, welfare of the adult deaf of our country. This organization is composed of heads of schools for the deaf of the United States and Canada.

I am a member of the National Advisory Committee on Public Law 87–276 which is an act passed by Congress to assist in recruiting and training teachers of the deaf and operates under the U.S. Office of Education.

I am a member of the American Instructors of the Deaf, the largest association of teachers of the deaf in the world, and have been editor of their convention proceedings since 1951.

I am a life member of the National Association of the Deaf, and at the risk of recalling a joke about the New England firm which, when asked for references on a young man, gave a great deal of personal information, I think I should say that I am the third generation of my family to engage in this work, all four of my grandparents and both of my parents having been educators of the deaf.

My father was head of the North Dakota and Missouri Schools of the Deaf. I think that is evidence of a continued and abiding interest in deaf persons.

I might say that most of the other members of the panel have also had long and continued association with the deaf.

The deaf are beset with serious problems in communication and education. Deafness to me, in some way, seems to be misclassified when it is considered with other physical handicaps because deafness itself is invisible. Most other physical handicaps, including blind-

ness, are visible to the naked eye. Deafness is more of an educational and a social problem. This of course is due to the communication aspects of deafness. That is, it is difficult for a deaf person to identify himself with other individuals, and particularly in large groups. He tends to be more or less isolated or at the mercy of other persons in being kept in touch with the things that are going on in the world about him or in the social situation in which he finds himself.

I do not feel that the public generally understands the effects of this handicap. So often the visitors who come to our schools for the deaf have questions which illustrate their total lack of understanding of the problem. Often they will come in and say, "When do you begin to teach braille?"

We of course will say, "Well, we think you have us mixed up with the school for the blind." Then they are a little bit embarrassed. Then they think of another question and say, "We can understand why the children do not hear, they are deaf, but why don't they speak?"

We say, "Well, if they spoke, would you expect them to speak English, French, or German?"

Then they begin to get the idea that people speak only because they imitate what they have heard around them from the time they are born. Those of us who were born in the Midwest speak like midwesterners, New Englanders have their way of speaking, and southerners speak with a southern accent, not because of where they were born, but the way people have spoken around them as they were acquiring speech.

Despite the difficulties of teaching a deaf child to speak intelligently when he is not able to hear, to monitor his own speech and to imitate the speech of others, these problems are minor as compared to the problem of teaching him language. When we think of the thousands of words that a hearing child hears from the time he is born until the time he first says "Mama," or "Daddy," or something that brings delight to the family when he is 10, 11, 12, 14 months old, we realize how often we have to hear something to be able to start using it.

A deaf child who has not heard at all, of course, has heard no words. Words themselves do not mean language. We can teach children to say "good morning," "hello," "mother," and "father," and that is not communication. The problem is to teach an understanding of language so that language becomes the medium of communication, whether it be in speech, writing, or any other form in which language can be used as the medium of communication and as the vehicle for conveying thought and thus become the avenue for education.

As I say, the tools for education themselves are the most difficult for the deaf child to acquire. After he has acquired the tools of education, then these must be used in giving him the same type of education that his hearing contemporaries receive in the public schools.

One other thought about the handicap of deafness. I think I should point out that all other types of handicapped children are educated in ways quite similar to these used with the normal child. Blind children, crippled children and all others are educated through the use of speech and hearing. Only the deaf child is denied this avenue of communication. To educate the deaf child, to teach him the language that he needs for the education, we must use every possible medium to expose this child to language during all of his waking hours.

I do not know whether the story is true or not, but it illustrates the difficulties of teaching a proper understanding of language to a deaf child.

In our school for the deaf, each morning we have what is called the morning news period. At that time the children are required to give back to the teacher language that they have learned in describing what they did between the time school closed the day before and the time they came to school in the morning. And they tell the story about this little boy, and I won't name the child, that had observed a little girl give her morning news. She had been taught the word "dress" as both a noun and verb, and she explained she got up this morning, brushed her teeth, washed her face, and when she put on her dress she said, "I dressed." The little boy in telling what he did said, "I got up this morning, I washed my face, I brushed my teeth." Now a dress was not the thing he wore. And he could not use a feminine word like that, so he concluded, "I panted."

Dr. McCLURE. Well, it may not be a true story, I do not know, but it could quite easily happen. Many more ridiculous things than that happen as we try to teach deaf children to handle the English language which they have never been able to hear.

So as I say, we are constantly trying to bathe deaf children in language of all types, to give them a clear, quick understanding of language.

The deaf do not ask for favors, they just want an opportunity for a good education and an opportunity to compete on equal terms for jobs with their hearing contemporaries.

I do not know whether the members of the committee or others are aware of it or not, but several years ago legislation was proposed to give the deaf a double income tax exemption such as the blind people have. In response the deaf organizations themselves rose up and notified the persons who were considering this legislation that they did not ask for this favor, that they felt they were better able to support themselves than blind persons if they had an adequate education. They did ask that the opportunities for getting this education and vocational training be improved, but then no further favors after that.

I feel that this captioned films bill, would be a step in giving them what they have asked for and help them to become independent and self-supporting. Deaf persons, of course, with an education are usually independent and self-supporting. Those with inadequate educations are likely to suffer economically. Naturally that causes our country to be less strong, if a certain segment of people must be supported all of their lives.

Silent movies were an excellent medium of recreation and education for the deaf because of the language between the pictures. It was easy for deaf persons to enjoy them, and the experiences they got in reading were of course beneficial to them. The talkies ruined all this. Now the newer educational films that are available would be wonderful for the deaf to enhance and enrich the programs for deaf children and deaf adults, but unfortunately, many of these newer short subjects, educational films, are rather difficult, or quite difficult, to understand unless they are prepared for deaf persons.

I think Senator Muskie's question a moment ago and Mr. Gough's answer helped illustrate that schools for the deaf are few and far

between compared with public schools. No school for the deaf that I know of, or no single State, has the resources or the technical ability to provide the captioning, and all the processes and necessary research work to provide adequate visual aids, particularly films for the use of the deaf children within their own States.

Just as Gallaudet College here is supported to a great extent by the Federal Government because no State has enough college students to justify a college for the deaf within its borders, then I feel the captioned film program should receive the support of the Federal Government because it will benefit deaf persons in all of our States, both children and adults.

Someone asked me yesterday about the Purdue program of airborne television in the Midwest, if this was a help to us. Unfortunately, it is not because the program is designed for hearing children. Much that goes on is purely auditory or explanations and talks by teachers. Unless the material used in this airborne television program is adapted for deaf children, too, it won't be of use to the children in schools for the deaf in those six Midwestern States.

Programs for the blind are of long standing. The handicap is more or less visible and the immediate effects in managing one's environment are easily imagined by persons who are considering handicaps of blindness. Close your eyes and you know what a blind person is up against. You cannot close your ears. You cannot take yourself back to where you had no language or understanding of it. Thus blindness appeals more to the sympathy.

Helen Keller has said that as she grows older she realizes more and more that deafness is the more serious handicap. It is responsible for the communication barrier which has such an isolating effect. She has said if she had her life to live over again she would probably devote more of her attentions to assisting the deaf, because now she realizes the effects of that handicap.

I earnestly request your favorable consideration of S. 2511. It will place in the hands of those who work with the deaf a most valuable tool for aiding the language comprehension of the deaf and thus improving ease of communication and education for this most worthy group.

Mr. Wooden, who is the former superintendent of the Michigan School for the Deaf, is the second member of our panel.

Senator PELL. Dr. McClure, we thank you very much. We would like to also state we will put in the record your formal statement which you submitted, and the formal statements of all four of your colleagues.

(The prepared statement of Dr. McClure follows:)

PREPARED STATEMENT OF DR. WILLIAM J. MCCLURE, SUPERINTENDENT, INDIANA STATE SCHOOL FOR THE DEAF, INDIANAPOLIS, IND.

Senator Pell and honorable members of the committee, my name is William J. McClure. I am an educator of the deaf. I was formerly superintendent of the Tennessee State School for the Deaf at Knoxville, Tenn., and since 1957 have served as superintendent of the Indiana State School for the Deaf, Indianapolis, Ind.

Other related positions and connections include:

President, Conference of Executives of American Schools for the Deaf, an organization of all administrative heads of schools for the deaf in the United States and Canada.

Member, National Advisory Council, teacher recruitment and training program, teachers of the deaf. This is a program of the Federal Government in the U.S. Office of Education.

Life member, National Association of the Deaf.

Member, Convention of American Instructors of the Deaf and editor of the proceedings of that organization since 1951.

There are in the United States an estimated 250,000 people whose hearing is so impaired that they are unable, either with or without the help of a hearing aid, to understand the speech of others. Of these persons, approximately 27,000 are schoolchildren, a majority of whom attend residential schools for the deaf—State or private. Others attend public day schools or day classes for the deaf.

In addition to the fact that this population group does not hear, it endures a number of other disabilities, all of which stem from the basic fact of deafness.

(1) Seldon do they have good speech as measured by normal standards. They are oftern referred to by the man in the street as "deaf and dumb", a term which too often carries connotations of mental backwardness. As a matter of fact, deaf people are no different from others in regard to intelligence.

(2) Characteristically the deaf have a poor command of language. Again, this is because they have never heard language. Lacking adequate language their whole educational and cultural advancement is more laborious, often resulting in serious educational retardation.

(3) The deaf tend to be isolated in a subculture having as its predominant mode of communication the language of signs. Since the language of signs is not widely understood by the general public its use tends to further isolate the group, regardless of its high utility amongst the deaf themselves. Consequently there is need to exploit every possible means of communication which will help to minimize the isolation. One such means is captioned films.

Since the year 1817, when education of the deaf was instituted in America, devoted teachers have struggled persistently to find better ways to meet their task. Great emphasis has been placed on the teaching of speech and speech reading. Language systems to help the deaf person develop a sense of syntax have been devised. Hearing aids with powerful amplification have been introduced. Each innovation has brought some improvement, but the education of the deaf still lags seriously behind that of the general population.

Since the deaf person is largely limited to learning through his vision, one might suppose that visual aids would play an important part in his instruction. In a sense this is true, but the aids provided are usually simple charts, flashcards, or mounted pictures clipped from magazines that the teacher may have available. Early schools for the deaf often set up museums, but teachers have consistently come up against the irreversible fact that visual aids without verbalization provide only weak communication. It was recognition of this fact that led to replacement of the silent picture by the sound film, a development which represented an advancement for the public at large but a setback for the deaf. As sound came in, captions of the early movies disappeared, placing one more communication barrier around the deaf. Television has only heightened this barrier.

Despite the bleakness of this picture, the future is not without hope. Two important forward steps have been taken by the Federal Government to help ameliorate the lot of the deaf. The first of these was the Captioned Film Act of 1958. In my capacity as president of the Conference of Executives of American Schools for the Deaf and as superintendent of the school for the deaf which serves as distributing agent for captioned films, I have been impressed with the growth of this program and with the surge of interest on the part of the deaf and those who work with and for them. The growth experienced thus far indicates that the service is at least a partial answer to strongly felt needs.

The second important Federal action on behalf of the deaf was the enactment by the 87th Congress of the bill to support recruitment and training of teachers of the deaf. This is going forward in good fashion and we are anticipating the results with high hopes.

There remains a third step which is contemplated in the introduction of S. 2511. This is to enlarge the scope of the captioned film program so that it can place in the hands of teachers and all who work with the deaf the necessary tools to do a more adequate job. Such an expansion holds promise of opening up for the deaf not only the wealth of filmed subjects for ordinary projection but the use of educational television, programed learning and teaching machines, and the whole array of newer educational media.

Congress, in the enactment of Public Law 85–905 has already recognized the basic need for captioned films for the deaf and the necessity of Federal support to make such a program possible. The enthusiastic response of the deaf community is a resounding vote of appreciation and gratitude for what has been done thus far. Educators now look forward hopefully to exploitation of the full educational potential of captioned films. We believe that this development has real educa-

tional significance for the deaf of all ages and earnestly request favorable consideration of S. 2511 now before your honorable committee.

Senator PELL. I believe Senator Muskie has a question of you, Dr. McClure.

Senator MUSKIE. First of all, I appreciate the opportunity of sitting here and welcoming you people. Dr. McClure, I would like to ask you this question. Deaf children attending primary and secondary schools attend through what age? Do they enter school at 5 or 6?

Dr. MCCLURE. Most schools for the deaf are now accepting deaf children at around the age of 4. The earlier we can get them started, the earlier we can attempt to teach speech and lipreading and to develop language.

Some schools, I think Mr. Crouter's school, accepts children considerably younger than that.

Most of the schools will keep children until they are around 19 or 20. In exceptional cases we may have a 21-year-old in our school if his parents have not enrolled him in a school early and if he is showing progress. We can make an exception and keep him. But ordinarily our average high school graduate is around 19.

Senator MUSKIE. So they have 15 years of primary and secondary schooling—education?

Dr. MCCLURE. That is right.

Senator MUSKIE. Compared with what for a normal child, 12?

Dr. MCCLURE. Yes. The handicap itself slows down education. Deaf children get almost all of their education directly from the classroom and particularly their language. They do not pick up as much incidental knowledge and information outside of the classroom as hearing children do through listening to radio, watching television, and listening to adult conversation.

Senator MUSKIE. I suspect that the 3-year difference is not a true measure of their handicap?

Dr. MCCLURE. No. Deaf children are actually more retarded than that educationally. By that I do not mean in intelligence. They are not retarded in intelligence, but their educational progress is somewhat slower.

Senator MUSKIE. Has any attempt been made to measure the effect of the retardation forces upon them by the physical handicap in this respect?

Dr. MCCLURE. Yes, there have been a number of studies that have pointed out the average retardation of the average deaf child and the effects in terms of social deprivation. There have been quite a few studies at Northwestern University pointing out the other handicapping effects of deafness, other than educational.

Senator MUSKIE. This information would be interesting to have, but I suppose——

Dr. MCCLURE. They are rather bulky.

Senator MUSKIE. Thank you, Dr. McClure.

Senator PELL. Thank you, Dr. McClure.

Dr. Wooden.

STATEMENT OF DR. HARLEY Z. WOODEN, ASSOCIATE EXECUTIVE SECRETARY, COUNCIL FOR EXCEPTIONAL CHILDREN, ARLINGTON, VA.

Dr. WOODEN. I am Harley Wooden. I have come into this work through the day schools, through a State department of public instruction, and through the superintendency of a State school, and in more recent years as executive secretary of the Council for Exceptional Children. I retired from that position this last year.

I would like to spend just a few minutes talking about how the hearing child learns language, what kind of problems a deaf child bumps up against, and what I think the captioned films might do to help remedy that situation.

As Senator Muskie pointed out in his talk, the deaf child may come to school without knowing that he has a name or that anything has a name, whereas the hearing child comes to school with a vocabulary of perhaps some 20,000 words, and some of the bright youngsters may have even as high as 30,000 words.

So when you hand a book to a hearing child, his first reader, it is for the purpose of teaching him how to interpret or how to associate the printed word with the spoken word that he already understands, whereas with the deaf child, when you give him a book, it is for his introduction to the subject of language.

Language is learned by the hearing child through his seeing it dramatized. Adults in playing with a baby are always talking to him about the things that either the adult or the child is doing. As a result the child learns to understand the concrete statements made about the situations that he observes.

He also learns to understand the abstract in very much the same way, from the multitude of concrete situations where we tell a youngster he is good, or something is sweet, or something is beautiful. He learns to generalize from those statements and to develop an understanding of the abstract.

And as has been pointed out here several times, the hearing child is immersed in a language atmosphere. He gets the necessary repetitions in order to fix this language that he learns.

However, the deaf child is never in a position, or rather is seldom in a favorable position, to get language. He must be in a position where he can see language that is being spoken, whether it is on the lips, or whether we are presenting him language on the printed page, or whether we are presenting him language through finger spelling. So he receives a very minimum. He lives, you might say, in a serious deprivation of language experiences.

More than that, the deaf child must use his single sense of sight in order to understand language. The hearing child sees the language dramatized and hears it spoken, but the deaf child must use his eyes for both purposes. And that is a rather difficult thing to do.

Consequently, as has been pointed out, the language of these deaf youngsters as they are progressing through school is very limited and many of them never do acquire, in a lifetime, a good language pattern.

Now there are a few exceptions, and it is these exceptions in which I am particularly interested.

We have found that there have been cases in which youngsters have learned language through speech, instances in which they have learned it through finger spelling, instances in which they have learned it through adults using a pencil and pad. But in every one of these instances that I have been able to discover, the language has been well dramatized for them. Some adult spent years giving this sort of "lipservice" to the youngster.

I have here a little booklet that I will leave for those who would like it. It is entitled "An Experiment in Preschool Education." This is an autobiography of a young deaf fellow who has a remarkable education. He entered school at the age of 9, after his parents had taught him language through finger spelling. He went through the 12th grade in 5½ years of school. He entered Gallaudet College over here at less than 15 years of age and has done graduate work at the University of Illinois since then.

And there is another instance in which a girl learned language through it being written for her, a girl by the name of Helen Heckmen. She wrote her autobiography, also entitled "My Life Transformed." That was published in 1928 by the Macmillan Co.

Now the one instance in which classroom adaptation of dramatization of language has been effective was performed about 1927 by a graduate student at Teachers College, Columbia University, by the name of Helen Thompson, under the sponsorship of Prof. Arthur Gates. Interestingly enough, we have a member on this panel, Dr. Yale Crouter, who turned out the mimeographed copies for that excellent piece of research. Dr. Gates gave me all the remaining copies he had left. This is book No. 37. I do not know exactly how many books there were. I think Mr. Crouter said about 40. They are not all as large as this.

This book is profusely illustrated so that the child could get the idea of what they were talking about. That is the type of thing that we do not have in our schools today. You can imagine the problem in trying to provide the necessary number of books when you have some 37 or 40 of them for the first grade.

The interesting thing about this experiment was the fact that these youngsters, after 1 year's time, when tested against a group of youngsters receiving instruction through the normal processes, or the usual processes, ranked from 70 to 260 percent above the other children. In fact, they ranked practically as well on this test as the hearing children ranked. That does not mean they had the same vocabulary as the hearing children; it means their total vocabulary was equal to the reading vocabulary of a hearing child at the end of the first grade.

If you could do that much with this type of crude material, I think it is rather evident what could be done if we had had captioned films where we could get motion, where we could introduce the element of time, past, present, and future, and where we could get the necessary repetitions. It is the repetition that these children need. They need a language atmosphere if they are to develop a language that is anywhere near comparable to that of the hearing child.

There are other devices that you would use—I see my time is slipping away. I think this experiment needs to be set up in such a way

that we can utilize a number of schools for research purposes that will test out this material, that will help determine how many years of special instruction you need before you can convert to traditional materials and that would have suggestions for revision so that the material could be revised and then distributed to the schools through the captioned films services.

In closing, I would like to say that there is nothing particularly new about this, teachers have dramatized language for years. The trouble has been that they have not had sufficient material, sufficient dramatization, sufficient repetition, or an adequately selective vocabulary for the purpose.

So I would recommend this to you in the words of John J. Lee, who was head of the Special Education and Rehabilitation Services at Wayne University, Detroit, when he said that he thought this type of an approach would do more for the advancement of the education of the deaf than anything that has been done in the last 50 years.

Senator PELL. Thank you, Dr. Wooden. I wonder if you would like to have a sample page of that book reproduced for the record?

Dr. WOODEN. I shall be happy to do that.

Senator PELL. If you would lend us the book in the course of the testimony we can have a copy of one page, and then introduce it into the record to illustrate the points that you are making.

Senator Muskie, do you have any questions?

Senator MUSKIE. Will one page be sufficient?

Dr. WOODEN. You can have as many as you want.

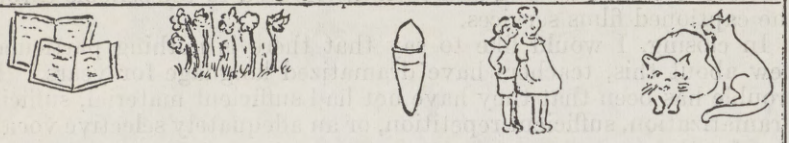
Senator PELL. I thought one page would show what you are driving at. Maybe we should have more. Why don't you select three or four sample pages that you think would be most helpful and we will have that reproduced for the record.

Dr. WOODEN. Fine.

(The sample pages referred to follow:)

87769—62——5

Paragraph meaning I. page 2

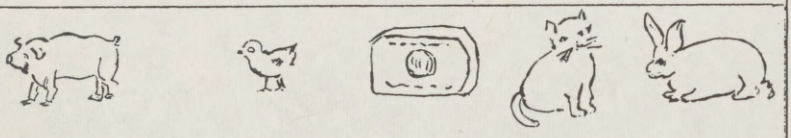


Children like to read them.

It is dark.

Children wash their hands with it.

Children walk over it.



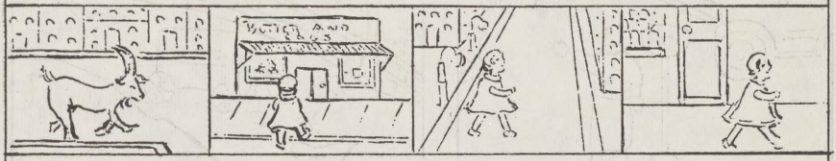
It has two feet.

10-80

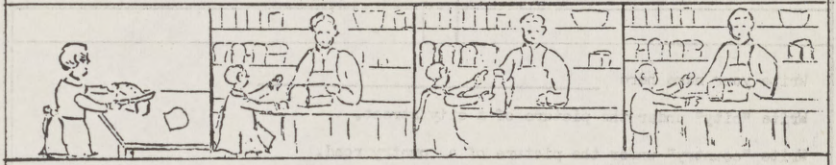
Name Date Page 200

"Here is ten cents to buy bread", said the mother.

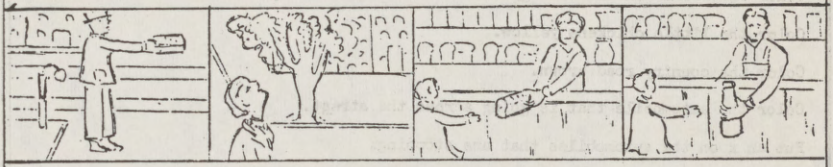
The girl went to the store.



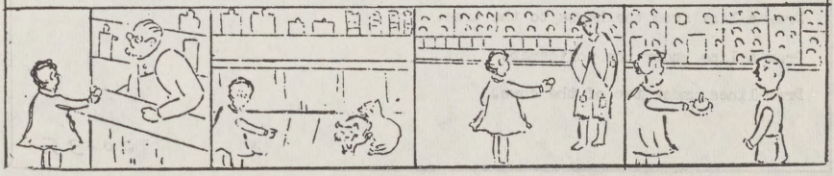
"I want to buy a loaf of bread", she said.



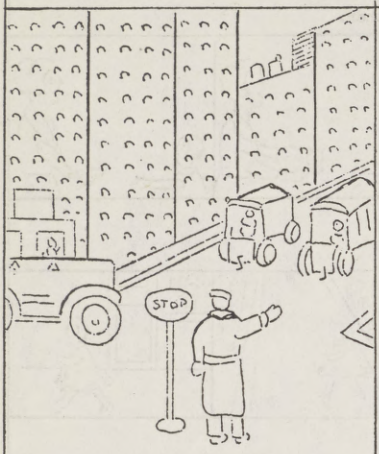
"Here is a loaf of bread", said the man in the store.

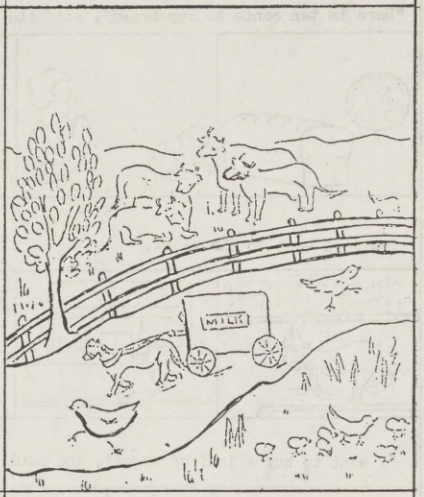


"Here are ten cents," said the girl to the man in the store.



Directions page 38





Write your name here _____

Write "city" under the picture of a city street.

Write "country" under the picture of a country road.

Color the policeman dark blue.

Color the leaves on the tree green.

Color the little chickens yellow.

Color the country road brown.

Color the automobile that is going across the street.

Put an x on the automobiles that are stopping.

Put an x on the hen that is running across the street.

Put an x on the wagon.

Draw a line from the horse to the tree.

Draw a line under the policeman.

Draw lines under two of the cows.

20-35

Senator PELL. Thank you, Dr. Wooden.
(The prepared statement of Dr. Wooden follows:)

PREPARED STATEMENT OF HARLEY Z. WOODEN, ASSOCIATE EXECUTIVE SECRETARY, COUNCIL FOR EXCEPTIONAL CHILDREN, WASHINGTON, D.C.

Honorable members of the Senate committee, gentlemen, it's a privilege to comment on the captioned films program for the deaf. Its merits are well known, but it possesses at least one important additional potential, which is as yet undeveloped. So I should like to join the others in discussing that potential with you and the language problems of deaf children that it could help solve.

Broadly speaking, there are two general types of deaf children. One consists of those who lost their hearing after they had acquired good speech and language. For the sake of brevity we shall label them as the postlanguage deaf. Their special problems are confined largely to learning how to read lips, follow group discussions, expand the language they have, and preserve their naturally acquired speech. Their language and speech are so helpful to them that they function more nearly on the level of the hard of hearing than on the level of other deaf children. By "other deaf children," we mean those who were either born deaf or who lost their hearing before they acquired good speech and language. This second group—whom we shall label as the prelanguage deaf—is the one to whose special interests I shall address most of my comments during the next few minutes.

Many a prelanguage deaf child starts school with three major handicaps—lack of hearing, lack of speech, and lack of language. The most serious of these, by far, is the lack of language. An inability to hear and/or to speak constitutes a real deprivation, but it does not prevent people with such handicaps from leading happy, successful lives or even from achieving a position in some professional areas. However, the person without language of some kind is not only illiterate, he is unable to make more than minimum use of the potential intelligence he possess.

The prelanguage deaf in our schools gain some skills in the use of language after long, tedious years of study. At the same time, it is a rare instance in which they develop a language pattern and vocabulary that in any sense approximates that of the average hearing child's. The resulting deprivation affects them in various adverse manners, including certain aspects of their intelligence. Research has found that they do as well as the postlanguage deaf on performance and nonlanguage tests of intelligence. Likewise they do well in such concrete areas of ability as that of recognizing relationships, remembering information, and seeing a logical order in a sequence. However, they possess less ability to elaborate from given information, to evaluate suitability or adequacy, or to adapt their knowledge to new or unusual situations. Scholastically they are 4 or 5 years retarded. They score at lower levels in the social competencies, possess a higher incidence of emotional disturbance, and for the most part they rely on the postlanguage deaf for group leadership. Thus their limitations of language and the resulting frustrations constitute an educational millstone around their necks.

In contrast, the hearing child enters school with a vocabulary estimated by some authorities at more than 20,000 words. When given a book in beginning reading, his task is largely one of learning to associate printed language with the spoken language he already knows. But when the prelanguage deaf child is given such a book, it is for use in developing his first understanding of language.

A normal child's first language is learned through simultaneously seeing it dramatized (or illustrated) while hearing it spoken. He does not learn it by merely hearing it; that is impossible. Our play with him includes a constant flow of speech about what is taking place. For example, we offer him a rubber ball and tell him what it is, we count the fingers on his hand as we touch them one by one, or we teach him how to identify his ears, nose, and mouth—always talking to him about what he and we are doing. Thus he learns concrete concepts through repeatedly seeing them dramatized in connection with speech. At the same time he acquires concepts of the abstract and other subtleties of language by seeing them dramatized in context. For example he gains his concepts of goodness by generalizing from the multitude of concrete situations in which an act by someone, or the taste of a food, or the quality of a material is labeled as being good. In addition the spoken language environment in which his life is immersed provides him with the necessary repetitions for rapid mastery of his mother tongue.

The prelanguage deaf child, on the contrary, lives in an environment of silence. He never sees language except when he is in a favorable position to do so; thus

the repetitions he receives are limited. Furthermore he is unable by use of the single sense of sight, under our present instructional facilities, to acquire more than a fraction of the language-learning efficiency that the hearing child develops by simultaneous use of vision and hearing. Thus the prelanguage deaf child is forced to live with his deprivations and frustrations, with the resulting losses both to himself and to society. In my opinion this is all the more unfortunate because there is ample evidence that much of the condition is unnecessary.

The profession has tried various useful language aids over the years to assist these children to acquire an understanding of vocabulary and proper language usage, but the benefits have been limited.

There are three possible media through which the deaf may learn English. They are: through reading lips, reading the printed page, or reading fingerspelling. Each has been used in our schools, and each has its place and relative advantages. But in searching for the rare instances in which any of these media might have been used with outstanding success, one or more examples was found for each. Interestingly enough the only common element known to have been employed with all three was comprehensive dramatization and illustration, very much like that used in teaching language to hearing children. The first case was that of a boy, reliably reported to have been taught through lipreading, who achieved the necessary language proficiency to earn a Ph. D. degree. The second was of a boy taught by fingerspelling, who entered a special school at 9 years of age, finished 12 grades in 5½ years, entered a special college at less than 15, and has since done graduate work at a State university. The third case consisted of a group of beginning children at a school for the deaf who were taught through the use of a large number of profusely illustrated mimeographed "books." This instruction was part of a research project conducted by Helen Thompson under the sponsorship of Arthur Gates of Columbia University. The experimental group achieved scores on three types of reading skills that ranged from 70 to 260 percent superior to the scores of a matched group of deaf children taught with conventional materials. On a fourth test, the experimental group's score was so superior to the matched group's that a percentage figure would be meaningless.

It probably is not necessary to discuss at this time the relative merits of the above approaches. However, it should be pointed out that the Thompson approach as a basic medium, if refined and expanded, can be made more adaptable than the others for language-instruction purposes. That is true; regardless of possible preschool experience and regardless of the school's program—whether manual, oral, or combined. Here is where the captioned film program can make a substantial contribution. It is, therefore, my recommendation that a research project be established, under the auspices of Captioned Films of the U.S. Office of Education, to include as a minimum the following undertakings:

(1) Develop a carefully prepared filmed vocabulary list for prelanguage deaf children (*a*) that is based on the most useful words in the child's everyday communication needs, (*b*) that anticipates extra special treatment of those kinds of words with which the deaf encounter the most difficulty, such as prepositions, adverbs, and the like, and (*c*) that is designed to utilize a word in only one connotation before introducing it in another, thereby avoiding the confusion caused by words with multiple meanings.

(2) Develop filmed language exercises, stories, content material for other subject matter, tests, illustrations, and plans for dramatizations, utilizing the prepared vocabulary list in a graded sequence to assure step-by-step language mastery.

(3) Select and adapt appropriate equipment and materials for the most effective presentation of language and other subject matter, including (*a*) books, charts, and flash cards; (*b*) sound film projectors and captioned sound films; (*c*) still-picture projectors and filmstrips, slides, or transparencies to accompany; and (*d*) teaching machines with special programed materials.

The sound projectors should be equipped for optional use with loudspeakers and/or individual headphones. The children who could profit are those with a remnant of hearing worth developing as an aid to lipreading, and the near deaf who may understand amplified speech but whose loss is too great for receiving proper opportunities to learn language rapidly. The use of captioned sound films could be made very flexible by coordinating the picture, sound, and captions with one another in any manner desired. They would constitute a great aid in developing concepts of the past, present, and future tense, including the proper verb forms in each case. They could incorporate lipreading experience, drills, and tests, and they could be used for presenting a captioned background picture story preparatory to reading the story from a book.

On the other hand the teaching machine could be used for individual language drill work, for obtaining essential language repetition, for testing skills learned, and for developing programed lessons in new vocabulary and subject matter in the transition period between the need for special materials and the ability to use conventional materials.

(4) Select a cross section of different type schools willing to cooperate on a carefully administered research project (*a*) to measure the effectiveness of the prepared materials, (*b*) to determine the number of years during which special materials are needed before language is adequate to use conventional material, and (*c*) to make suggestions for improvements of the materials and the method of use.

(5) Make such revisions as seem necessary and make the finished product available through the captioned film service. In closing my comments on this proposed captioned film project, I should like to call attention to several facts: (*a*) the proposal is based on no strangely new or untried theory but rather on the means by which hearing children learn language as well as on the only known means by which prelanguage deaf children have been spectacularly successful, (*b*) it involves nothing drastically new in language instruction—teachers have always dramatized as much as they could. It merely provides for greatly increased and improved dramatization, much more repetition, individual self-instruction, better selection of vocabulary for the first few years, and adaptation of all this for use with the required equipment; (*c*) it involves no newly invested equipment—minor adaptations of what is on the market will serve the purpose; and (*d*) the plan is adaptable to any type school program that is now in existence for the deaf.

It is my honest conviction that the addition of such an undertaking to the captioned films program of the U.S. Office of Education would—as one prominent special educator stated "* * * do more to advance the education of the deaf child than anything that has been done in the last 50 years * * *." I am happy to submit it to you for your earnest consideration.

Senator PELL. Dr. McClure.

Dr. MCCLURE. Mr. Crouter is next.

STATEMENT OF JOHN YALE CROUTER, PRINCIPAL, RHODE ISLAND SCHOOL FOR THE DEAF, PROVIDENCE, R.I.

Senator PELL. Mr. Crouter, it is with particular pleasure that I welcome you before this subcommittee.

Mr. CROUTER. I am very grateful that you saw fit to ask me to come here, Senator Pell. I am grateful for the opportunity to speak for this excellent bill which you are recommending.

I would like briefly to state my background. In response to what Dr. McClure mentioned, the Crouter family is competing a bit. I am the third generation teacher of the deaf, too. I can go one better at the moment. The fourth generation is now at work.

I am particularly concerned, as time continues, about the future under modern techniques of automation, if you will, under TV, and the monitoring systems which practically exclude the profoundly deaf. Therefore, I sincerely feel that S. 2511 will cause them to be reborn, if one may so express it, and, in the future, will provide the necessary steps to bring the profoundly deaf youngster into the line.

We are having great difficulties as each year goes by in getting our youngsters into the normal scheme of things under everyday conditions. With the addition of television to the school processes and filmstrips with records to assist in the clarification, the deaf child is absolutely excluded. Therefore, if the present bill could be expanded to include the audiovisual field, as you suggest, I know the future of the deaf would be advanced tremendously in a very short time.

We have been very much impressed with what has transpired in the very short time that the present bill has been underway. Our greatest concern is we cannot get enough. We realize, as Dr. Wooden and Dr. McClure said, that the cost is prohibitive in terms of a commercial company providing the films. But it is vitally important. The deaf, and I am not trying to be maudlin, have an extremely serious problem, particularly if they have been born in that fashion. Their education requires painstaking, constant repetition with a terrific strain on the individual and with little help in a great many cases from the auditory system.

I am very sure that the inclusion of captioned films can make a tremendous contribution. Captioned films definitely can help in the fields of history, geography, science, and in fact almost every educational endeavor. They can be of untold help, too, in the vocational programs that a great many of our resident schools are now able to provide.

It would seem to me that some of the excellent vocational films which, for example, are used in the armed services, if they were properly captioned, would be opening into new fields for the deaf in the future. The possibilities are almost unlimited. There is not any question in my mind but that it would be a tremendous improvement over what we have had before.

Textbooks and films now are coming out with visual aids, records, and things of that kind which are of great help to hearing children. If captioned film can be added to that, then the deaf themselves can be brought into the picture. I can visualize a new introduction to the classics, which is important for the deaf to master. The things that the average child picks up at home from hearsay are completely lost as far as the deaf child is concerned, if the child was born deaf or has become deaf in the prelanguage age. The situation that can develop out of the program you are recommending would be of value in promoting such incidental learning.

There are at present 150 films that would serve to introduce the classics to the deaf. One could go on indefinitely and cover every situation indicating how we might open many fields in a manner comparable to what has been done for the blind. There just is not any question about the utility of captioned films.

There is also another very important point which I think is vitally necessary. This is the development, if you will, of a sense of humor. People do not realize how terrifically difficult it is for a deaf person to do so in all its ramifications. To be sure, the pun is the lowest form of wit, but truthfully for the prelanguage deaf, it may well be the highest. If we can use the captioned films to the deaf with an appreciation of everything from the works of Charlie Chaplin to Macbeth, I think we can go a long way toward improving the development of a sense of humor in these children.

It gives me great pleasure and a sincere feeling of accomplishment to add my few words at this time in support of your bill. I know it cannot go wrong.

Senator PELL. Thank you very much, indeed, sir.

I want to emphasize that the formal statements of you gentlemen will be printed in the record.

Senator Muskie, do you have any questions?

Senator MUSKIE. No more questions.

Senator PELL. Thank you, Mr. Crouter.

(The prepared statement of Mr. Crouter follows):

PREPARED STATEMENT OF JOHN YALE CROUTER, PRINCIPAL, RHODE ISLAND SCHOOL FOR THE DEAF, PROVIDENCE, R.I.

I am grateful to Senator Pell for his invitation to appear before this committee to comment on S. 2511 concerning the captioned films program for the deaf.

The merits of this program are already beginning to show themselves. With this in mind, I would like to briefly discuss some possible means of broadening the experiences of the deaf child through the use of these films.

It is significant that the average deaf child has only a little over 10,000 hours of classroom instruction in his entire school life. During this time he must learn speech and lipreading plus all the general information most of us pick up through casual conversation.

Already the use of films and filmstrips prepared for the hearing child has widened the deaf child's horizon, but value to the deaf child of films prepared for the hearing is lessened by the increasing production of tape recordings or records to be used with filmstrips. Filmstrips using fanciful approaches to factual subjects (for example; brownies manipulating blocks to teach arithmetical concepts) are most confusing to the deaf child. Also, these films are overly dependent on a teacher's explanation of each step. It is becoming more and more evident that captioned filmstrips could greatly improve this situation.

It seems pertinent here to point out that if value of material developed, especially for the prelanguage deaf child, should be questioned it might be stated that a series language exercise book by Croker, Jones & Pratt produced especially for deaf children has been in constant use since World War I by many schools for the deaf.

I should like to point out some possible ways captioned films can broaden the experiences of a deaf child.

In the field of history it takes a long time to develop language to the point where the pupil can understand stories. This results in little time for becoming acquainted with more than just a few of the major figures of history. Films currently available in this area could be captioned and thus broaden the child's historical background.

Within the broad aspects of geography (both physical and political, including climate, the influence of topography, etc.), the judicious use of some commercial westerns (either movie or filmed TV programs) is one way the deaf child could receive a better understanding of the development of our Western States.

In the field of science many fine films and filmstrips presently available could be made much more valuable to the deaf by appropriate captions.

In civics where the average deaf child has great difficulty in developing an understanding of the privileges and responsibilities of citizenship on the national, local, and State levels, the normal child has a great advantage for he has heard numerous discussions on these subjects before he ever has to cope with making out an income tax form or voting. Properly captioned films can be of great benefit in developing this important area.

There are a large number of valuable vocational films that if carefully edited and captioned should open doors to unlimited opportunities. It is well to point out that unless a deaf child has a reasonable knowledge of various jobs and whether or not they are possible for a deaf person to handle he will not be able to make a realistic appraisal of his own capabilities as well as that of the job.

Let us now turn to textbooks. Even simple texts have pitfalls for the prelanguage deaf. For example; look at the sentences: "Bennett was considered a snake in the grass" or "Thomas was the fly in the ointment." A young deaf person must be taught the significance of such phrases or he will interpret them literally. Presently many publishers are furnishing filmstrips (primarily) and films to accompany texts. If these could be captioned they would be more valuable to the deaf.

In reviewing the classics the enjoyment of meeting well-known literary characters such as Dickens' Micawber and the men in "Treasure Island" is unknown to all but a handful of deaf people. Simplified classics have been published, to be sure, but there is a much greater advantage to reading the classics in the original.

One who has seen W. C. Fields as Micawber in "David Copperfield" can never forget him. "Waiting for something to turn up" will become meaningful to a deaf person and renewing acquaintances with Micawber by reading "David Copperfield," after seeing the film, would be a joy not a task. Captioned films of this sort can make the reading of a classic a real pleasure instead of a major chore.

An area of tremendous importance in the all-round development of prelanguage deaf, and at the same time one of the most difficult, is the development of a sense of humor. A sense of humor is a "saving grace" for all handicapped persons and certainly no less for the deaf. However, we must realize that although a pun has been called the lowest form of wit, for the prelanguage deaf it may well be the highest, since it involves extensive knowledge of word meanings and subtleties of their use.

Without going into a catalog of the forms of humor it may be stated that two of the films, already made available through the captioned films program, illustrate the vastly different types of humor. Charlie Chaplin and "Mr. Hulot's Holiday" have already shown that well-done commercial films can be adapted for this real need, albeit one which might not appear at first sight to be essential.

It is my sincere belief that the growth of the captioned films program of the U.S. Office of Education is of utmost importance to the overall education of the deaf and will result in great educational contributions to the present generation.

Senator PELL. Dr. McClure.

Dr. MCCLURE. Next we have Mr. Ambrosen from the Maryland School for the Deaf.

STATEMENT OF LLOYD A. AMBROSEN, SUPERINTENDENT, MARYLAND SCHOOL FOR THE DEAF, AND VICE PRESIDENT, CONVENTION OF AMERICAN INSTRUCTORS OF THE DEAF, FREDERICK, MD.

Mr. AMBROSEN. I am superintendent of the Maryland School for the Deaf in Frederick and vice president of the Convention of American Instructors of the Deaf.

The testimony this morning has been devoted largely to children and teaching problems and learning problems. The approach I want to take concerns the adult deaf.

In 1947–48 the National Association of the Deaf, which is a national organization of deaf people, approached the American City Bureau in Chicago to plan a campaign for raising $1 million or several million. The American City Bureau is just completing a program of raising $3 million for Illinois University in Chicago. They said they would study the problems of the deaf for 1 year and then launch the campaign.

After the American City Bureau studied the problems of the deaf for 1 year, the program to raise $3 million or several million nationally was dropped. One of the chief reasons that this program for raising money for the National Association of the Deaf was dropped was because the American City Bureau said there was no appeal. They felt that deafness did not have any appeal such as that of blindness or some crippling disease. They just felt they would not be successful and therefore they did not want to have the campaign.

Magazine writers often visit schools and at the close of the visit they often ask, "Where is the punch line?" They do not see it.

One of the unique features of the educators of the deaf in residential schools especially is the fact that we not only have our associations with teachers and with deaf children, but we also associate with deaf adults. We are interested in their rehabilitation problems, their marriages, their children, how they are getting along. We go to their conventions and we associate with the adult deaf people a great deal.

We are always impressed by the general lack of common experiences or the general lack of common knowledge. They are not exposed to the same knowledge that we are exposed to. We listen to the radio, we listen to television, and our associations are different.

The emphasis today is on sound. You have a very good example of that this morning. Sitting in the front row is Alexander Fleishman, a deaf man, who is president of the National Association for Jewish Deaf and the American Athletic Association of the Deaf. Mr. Fleishman is deaf and is sitting there and has to have an interpreter. He cannot read lips from the back of our heads, and he is too far away from the members of the committee to read their lips.

All of this is being interpreted to him and, to additionally impress you with the importance of sound, I suggest that on the next news special on NBC or CBS or ABC, in listening to any of the gentlemen such as Mr. Cronkite and others that have these news specials, watch the program and turn the sound off. Then as you sit there analyze your frustrations. I feel sure you will find your understanding of the program would be quite impaired.

Senator MUSKIE. I am sure, Mr. Ambrosen, there are no people more impressed with the importance of sound than the Members of the Senate.

Mr. AMBROSEN. My next point was that no salesman could sell his product if he were ambiguous in his presentation, and I am sure no Senator would be elected on ambiguous presentations.

So therefore, what we need very clearly are unambiguous, clearly understood programs, films, et cetera.

Another area that I would ask you to consider—I am sure that you are concerned in your other duties with automation and its effect on the employment picture, and what it is doing to the employees of America, the workers of America who are being displaced, laid off from work through no fault of their own. The Federal Government is embarking on a program of retraining displaced persons from industry so that they can find jobs in other work. This is affecting the deaf very early in the automation of industry and the deaf will need retraining, too. If retraining professional films are available the task will be easier, and an added bonus—we are always looking for bonuses—would be their great value in schools for the deaf. So they could be used everywhere.

My last point is that at every Government level we are concerned with the so-called senior citizen, the aging population. Many people in the aging population lose their hearing because of the aging process. Many of them find it very difficult to adjust to a hearing aid. They reject them because of cosmetic reasons, or when they do learn to use them they use them at limited times.

So another added bonus would be the availability of captioned films for senior citizens who have lost their hearing. I do not think it is too much to ask that these new special programs and cultural programs be captioned when presented as reprint showings, on television. Although it costs money, why wouldn't it be possible to have captions added? The sound track would not be impaired. Then a person with hearing would enjoy the program and the deaf, and the senior citizens who have lost their hearing, would enjoy the programs because they could read the captions. This is a tremendously exciting possibility. As it is almost next to impossible to appeal to people to raise money and give it out of their own pockets, we ask that the Congress provide the funds for this program. Thank you.

Senator PELL. Thank you very much, indeed, Mr. Ambrosen.

Do you have any questions, Senator Muskie?
Senator MUSKIE. I have no questions, Mr. Chairman.
(The prepared statement of Mr. Ambrosen follows:)

PREPARED STATEMENT OF LLOYD A. AMBROSEN, VICE PRESIDENT, CONVENTION OF AMERICAN INSTRUCTORS OF THE DEAF, AND SUPERINTENDENT, MARYLAND SCHOOL FOR THE DEAF, FREDERICK, MD.

Senator Pell and members of the subcommittee, thank you for your gracious invitation to offer testimony pertaining to captioned films for the deaf. As vice president of the American Instructors of the Deaf, I am authorized to offer information in support of greatly increased efforts to enlarge the program started a few years ago to provide educational, cultural, and entertainment films with captions, enabling deaf citizens to not only see films, but to also understand them. In effect captioned films eliminate a common criticism in that films today have doubtful value because all the language of the films is on sound tracks which, of course, has no meaning for the deaf.

It is paradoxical to note the rapid technological advances that have combined electronics and film techniques which provide excellent visual and auditory cultural, educational, and entertainment that is extremely beneficial to the majority of the people of the United States, and of very doubtful value to a substantial minority of persons shut off from the world of sound because of deafness. In order to meet this problem captioned films will enable the deaf once again to learn from educational films, advance their cultural needs, and receive appropriate entertainment all with understanding. Captions bypass the sound tracks and capitalize on the visual skills which the deaf develop to a very high degree.

Our high cultural and educational attainments have come about in large part, through the vast progress we have made in the communication fields. We now ask that these benefits be materially increased and made available to thousands of deaf people, of all ages, in all of the United States.

Byron B. Burnes, president of the National Association of the Deaf, once wrote a paper under the heading of "Who Are the Deaf?" Permit me to quote from this article, and enter the article in its entirety as an appendix to my remarks. "Most of the deaf are able to react to one sound or another, but the sounds they hear are not the same as normally hearing persons hear them * * *. Because of flaws in his auditory equipment, the deaf person is not able to translate spoken sound into an understandable flow of communication." Dr. Burnes is deaf, a graduate of Gallaudet College, possesses an earned master's degree in mathematics from the University of Chicago, and is a teacher in the California School for the Deaf at Berkeley.

There are several areas for the adult deaf that need attention and their solutions, in many cases this may be the only solution, could be greatly enhanced and more easily attained through films that provide not only visual action, but also understanding through the printed word. No salesman, no matter how skillful he may be, can hope to sell his product through an ambiguous presentation. Captioned film removes the ambiguities and presents clearly unambiguous thoughts and ideas.

In the field of employment, automation is proving to be as complex a problem for the wage earner who is deaf, as it is for the worker whose hearing is unimpaired. The deaf employee faces the same problem in that he must find a new job or be retrained for another occupation. No doubt the new Federal program providing retraining opportunities will utilize vocational training films now in existence and those that will be made in the future. These very same films are of doubtful value to the deaf, but on the other hand they can be made extremely effective with captions. Our Nation can ill afford to have a large group of people unemployable because technological advances in industry render them unemployed through no fault of their own. If captioned vocational training films would be available, an added bonus would be their value to schools for the deaf responsible for educating our deaf children. Approximately 500 young men and women graduate from our schools each year and enter a very competitive labor market. In the past, on at least two occasions, legislation in the Congress was offered to give the deaf an additional exemption on their Federal income tax reports. The greatest opposition to this legislation came from the deaf themselves. They

want to carry their fair share of the load, and captioned vocational training films will, in a large way, help continue this admirable attitude through high employment of the deaf.

In the area of family life and adjustment, there is a need that is not being met except in a very few locations. Counseling for families with deaf parents is available only where there may be a clergyman present who specializes in work with the deaf, a special psychiatric center in New York City which treats problems on an outpatient basis only, the counseling center at Gallaudet College here in Washington, D.C., and a few professional personnel who by chance became interested in the deaf but who need interpreters on hand when assisting deaf people. I need not point out to you the complexities of providing counsel for family life and adjustment for the regular population and how dependent this is on an easy and natural means of communication, the lifeblood so to speak, of the counselor. I would point out however, that this is an almost impossible situation when the means of communication is laborious, ambiguous, or compromised by the presence of a third party to serve as an interpreter. There is a vast and fertile field in the area of family life around adjustment situations that can be met through captioned films apart from counseling in a broad general way. We can provide greater understanding for the deaf of the life immediately about them such as civic and community responsibilities, how and what public agencies are ready to serve them when needed; public education problems as it relates to their hearing children attending schools in their communities; driver-training education with reference to new motor laws, safer driving techniques, illustrated causes of accidents, traffic problems brought about by urban growth, expressway driving, etc.; purchasing a home, banking services, our Federal Government and its numerous functions and services, and many, many other areas that contribute to knowledge and information for more effective citizenship.

In the field of television we see special news programs on current issues such as the water shortage, population explosion, Cuba, underdeveloped countries of the world, Algeria, and many others. Except for receiving the general scenes that unfold before them, the deaf cannot hear the all-important commentary that accompany these special events. Since they are almost always on films, it would be a simple matter to provide captions for repeat showings that would enable the deaf to receive the same benefits as the regular public. This one simple technique would to much to alleviate the isolation of deafness.

Showings of films with captions can be presented to large groups of deaf people assembled at meetings at clubs for the deaf in our large cities, conventions, and in schools for the deaf. In order to reach many who live in rural communities and even those in large cities where club showings are practiced, television offers an excellent method to reach a large majority of deaf people in the United States. Television networks and local stations can present captioned educational and special events films as a public service. When such films are shown it is important to remember that the sound track is not impaired. This means that such films would not necessarily have limited appeal because the sound would accompany the films as well as the captions and thereby be of interest to all people, regardless of whether or not they have perfect hearing or are deaf. The accessibility of television presents a most exciting and effective means of reaching the deaf regardless of where they live.

Another segment of the population I have not mentioned, but who are nevertheless important, are the aged people who acquire their hearing losses in later years. At all governmental levels increasing attention is being given to the so-called senior citizens who are making up an increasingly larger percentage of our population. Many of them, who lose their hearing in old age, find it extremely difficult to adjust to loss of hearing and find it even more distressing to learn how to use a hearing aid. Foreign films used to attract the deaf and were of interest to those who lose their hearing in old age because the subtitles in English were added for showing in this country. Today the sound tracks of foreign language films have English "dubbed in" with subtitles eliminated.

We live in a world where more and more emphasis is being placed on sound as a means of getting ideas across to the public. In order for you to grasp what it means to live without hearing, I ask that you conduct a simple experiment. The next time you watch a television program of any kind, turn the volume off and analyze your frustrations as you watch the program unfold. Evaluate your understanding and I am sure you will find it somewhat impaired.

Thank you.

Who Are the Deaf?

(By Byron B. Burnes [1])

If one were to ask you, "What is a deaf person?" your answer might be that it was one who was not able to hear. That would seem to be the logical answer and it would seem to be sufficient, but with the numerous studies of the deaf and deafness which have been made by educators, otologists, and psychologists, people have been tempted to devise numerous classifications of the deaf and to establish various degrees of deafness. Differing theories have created confusion for public agencies working for the deaf; they have caused controversy in educational circles; and they have led to misunderstanding in the minds of parents of deaf children.

The organized educators of the deaf long ago recognized the need for an accurate description of the deaf and in 1937 a committee on nomenclature representing the Conference of Executives of American Schools for the Deaf devised a set of definitions which the committee members considered simple, clear-cut, scientifically correct, and readily understood by the laymen. The definitions separated all persons with impaired hearing into two classes, the deaf and the hard of hearing, as follow:

(1) The deaf: Those in whom the sense of hearing is nonfunctional for the ordinary purposes of life.

This general group is made up of two distinct classes based entirely on the time of the loss of hearing:

(*a*) The congenitally deaf—those who were born deaf.

(*b*) The adventitiously deaf—those who were born with normal hearing but in whom the sense of hearing became nonfunctional later through illness or accident.

(2) The hard of hearing: Those in whom the sense of hearing, although defective, is functional with or without a hearing aid.

These definitions have been generally accepted by educators and by the deaf, themselves, as correctly classifying the deaf and the hard of hearing. They logically describe the deaf as those who have no usable hearing. Those who do possess usable hearing, even through amplification may be necessary, are classified as the hard of hearing. Thus are the two groups distinctly separated, as they should be separated, for each group must contend with problems peculiar to itself.

After 20 years these definitions have not become solidly established in the minds of the general public. People continually refer to a hard of hearing person as "deaf," and it seems that they always will. One reason for this confusion of the hard of hearing with the deaf is due to the fact that we have no simple term to describe the hard of hearing. The word "deaf" is handier. Newspaper headline writers prefer the word "deaf" because it fits their space, and we see it almost every day introducing items in the papers which report on the activities of persons who are not deaf, but hard of hearing. We need a simple four-letter word to describe the hard of hearing adequately as the word "deaf" describes the deaf. Until we find such a word, if ever, the confusion will continue.

Certain manufacturers of hearing aids have contributed to the confusion by continually using the word "deaf" in their advertising, indicating that their amplifying devices will enable the deaf to hear again. Only the hard of hearing can benefit from the use of a hearing aid, but the expression "hard of hearing" does not fit well in a one-column advertisement in the newspaper.

The National Association of the Deaf has appealed to these manufacturers to refrain from using the word "deaf," and a few have complied, but others simply point out that the dictionary describes any person with impaired hearing as deaf, and indeed it does. In most dictionaries we find the word "deaf" defined as "lacking or deprived of the sense of hearing, wholly or partially; unable to hear." We have asked publishers of dictionaries to change their definitions, but thus far they have only promised to review the subject.

The extensive advertising of hearing aids in recent years has worked a hardship on many of the deaf. Applicants for employment have been turned away by employers with the advice that they learn to use a hearing aid. Salesmen of hearing aids have sold their product to parents of deaf children, giving them the impression that if the children will wear the devices they will develop the ability to hear.

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[1] From an address given at the New York School for the Deaf at White Plains, N.Y. Reprinted from the American Annals of the Deaf, vol. 103, No. 2, March 1958.

Byron B. Burnes, M.A., Litt. D., is an instructor in the California School for the Deaf. He is president of the National Association of the Deaf and editor of the Silent Worker, a national magazine for the deaf.

It is well to note that the definitions do not include such expressions as "deaf-mute," "deaf and dumb," or "mute." These terms have long since been considered obsolete.

One group of educators interested solely in the teaching of speech to the deaf did not agree to the definitions distinguishing the deaf and hard of hearing. They preferred to classify the deaf and the hard of hearing according to their ability to speak and use the English language. They classed the deaf as those who were born without hearing or who lost their sense of hearing before they acquired the ability to speak. In their opinion, the hard of hearing are those who are deprived of their sense of hearing, or part of it, after they have developed speech and language skills. It is difficult to believe that anyone would determine the degree of hearing on the basis of one's ability to speak or to use language, but these theories have been widely publicized and they have created further confusion, especially among parents of deaf children.

The opinion of most leading authorities is that the word "deaf" means what it says. It indicates the complete lack of usable hearing. There is no such condition as partial deafness, or total deafness, or profound deafness. If a person is not deaf, he is hard of hearing. The deaf person has no usable hearing; he cannot be taught to hear, or trained to hear.

The expression, "usable hearing," has appeared a few times in this paper because the layman may not realize that there is a type of so-called hearing possessed by almost all of the deaf which is not usable hearing. Most of the deaf are able to react to one sound or another, but the sounds they hear are not the same as normally hearing persons hear them. Many deaf people can hear the human voice, but it does not have the same sound the hearing person recognizes as a human voice. Because of flaws in his auditory equipment, the deaf person is not able to translate spoken sound into an understandable flow of communication. With practice he may develop the ability to recognize such common expressions as "Good morning," "How are you?" but his ability to do this does not indicate that he hears these expressions properly. This kind of hearing is not recognized as usable hearing. It is merely the ability to react to sound and it is not even known as hearing. It is called sound perception. Some deaf persons have a high degree of sound perception but still no usable hearing. For all the purposes of life, they are deaf, and they are classed as deaf, not hard of hearing.

With medical advances reducing the severity and frequency of such diseases as meningitis and scarlet fever which often result in loss of hearing through destruction of the auditory nerve, the adventitiously deaf are becoming fewer in number.

The deaf naturally fall into a number of different classifications, the same as hearing persons do. In fact, they are no different from hearing persons, except for the difficulty in communication with hearing persons imposed upon them by their deafness. Among the deaf, the same as among any other group of people, you will find extroverts and introverts; you will find college graduates and a few illiterates; you will find the rich and the poor, the good and the bad.

The great majority of the deaf are educated in State schools for the deaf, and most of those who go on to college attend Gallaudet College. In their school they learn the sign language almost before they learn anything else, and they use it as a means of communication among themselves the remainder of their lives. Out of school they naturally fall in with deaf persons like themselves with whom they can communicate freely. They maintain their own social clubs, their sport groups, churches, and State and National organizations. Most of them are well-adjusted, average citizens, regularly employed, owning their own homes and driving their own automobiles. Those who are comfortably situated do not need help from rehabilitation or welfare or employment agencies, but there are many among the deaf who do need help, the same as many will be found in any cross section of American people who need assistance of one kind or another. Their greatest handicap is in the fact that the public in general is not acquainted with their capabilities and employers frequently deny them opportunities to work when they are fully capable of doing the kind of work for which they apply. Rehabilitation personnel and all others engaged in public service interested in helping the deaf can do them the greatest good by helping educate employers as to the facts about the deaf.

Like any other group, the deaf have their emotionally disturbed and their less gifted individuals, and these are the ones most in need of help. There are deaf persons who do not fit into their employment situations because of maladjustments in personality. They need counsel, guidance, and probably therapy.

The young deaf graduates of a school for the deaf usually are able to find their places in industry. Most of them have received adequate training in the funda-

mentals of a trade and they have developed good working habits. Many of them find work for themselves, others make contacts through members of the vocational staffs at their schools, and still others are assisted by employment agencies and rehabilitation offices. Once they find an employer who has no prejudices against a handicapped worker, they are ready to face the future on their own. Some of them are able to communicate with their employers and fellow workmen by speech and lipreading, and those who find oral communication inadequate have little trouble with written communication.

Those who do not graduate from school present more of a problem, and the less education they have acquired, the greater is the problem. Deaf children in school are like all other children. They range from the gifted to the "backward" learners. Those who do not make good progress in school find it difficult to compete with a hearing world. The slow learners who possess normal hearing have an advantage over the slow learning deaf children for they are at least able to communicate. The deaf children have failed to develop a sufficient command of the English language to make communication easy for them. They do not understand written instruction but still many of them are or can become highly skilled workmen, once they have been given a start. Employers or supervisors or foremen will find it necessary to give these deaf workers instructions mostly by means of gestures. On many occasions foremen have learned the sign language and those who have thus developed some understanding of their deaf workmen highly praise the performance of the deaf.

Senator PELL. It would give me particular pleasure to introduce the next witness, but perhaps it would be more appropriate if Senator Muskie welcomed him, Mr. Joseph P. Youngs, Jr., superintendent, Governor Baxter State School for the Deaf, Portland, Maine.

Senator MUSKIE. I am very proud to welcome Mr. Youngs to the hearing this morning. I think the record ought to show that both he and I are very proud of the Baxter State School for the Deaf which was made possible by reason of the generosity of former Governor Baxter, of Maine, who is still alive, a man of financial means and magnificent generosity.

Among other things he gave to the State a State park with 52 mountain peaks. I do not think there are many men in the history of the country who gave 52 mountain peaks to the State. He gave this island off the coast of Maine for the building of the school for the deaf. Then in addition, he gave upward of $1 million to finance the construction. The school was built during my administration as Governor of Maine. So although Governor Baxter was a Republican and I a Democrat, I count that as one of the highlights of my administration, one which was made possible by his generosity.

Mr. Youngs has come to the school since I left. I know of his reputation and his ability and am glad to have the opportunity to welcome him this morning serving as superintendent of the school and speaking for the people of Maine.

STATEMENT OF JOSEPH P. YOUNGS, JR., SUPERINTENDENT, GOVERNOR BAXTER STATE SCHOOL FOR THE DEAF, PORTLAND, MAINE

Mr. YOUNGS. Thank you, Senator Muskie, for those very nice words, and thank you, Senator Pell, for the invitation to come to Washington to speak on behalf of the captioned films program.

I would like to mention before continuing that Governor Baxter still maintains a very active interest in our school for the deaf in Maine and also in the activities going on there. Not too long ago I told him I would be coming down here to speak on behalf of the captioned films program, and he raised the question as to whether or

not we were already showing films, educational films, in our school for the deaf.

Senator PELL. I might say the invitation really came from Senator Muskie.

Mr. YOUNGS. Yes. Thank you.

He asked if we were showing educational films in our school for the deaf already. It is true that there is a tremendous amount of educational material on film that can be used in public schools. Those of us working with deaf children try very hard to use these films as best we can in our schools for the deaf.

What transpires, though, is a very long and arduous task of preparation. The teacher must preview these films several times to take notes, then she has to prepare her class for the showing by telling them what they are going to see. While it is being shown quite often the teacher must stand by the screen under a spotlight in a darkened room and interpret what is going on, thus distracting the viewers who have to look at the picture, cast a side glance at the interpreter, and than back at the picture.

After it is over, the teacher has to rehearse what they have seen to make sure they have understood the major points. This drags out an instruction so that it is hardly worthwhile, and many times teachers will start off with a bang, getting films for the classes, and then realize how little actually comes out of it and they stop and go back to their tried and true methods of blackboard, textbooks, and other visual aids.

Along these lines at schools for the deaf, teachers have made what we call visual aids long before the term "visual aids" became popular in educational circles. Out of necessity to prepare language charts, picture charts, experience charts, they cut pictures from magazines and newspapers to illustrate each word in the vocabulary. Many of these words cannot be illustrated by pictures. The verb "to be" and many other abstract words cannot be illustrated, but they do their best. Because teachers meet so many stumbling blocks in our language, the language teaching fell short.

Because of these obstacles, the teaching of the abstract, as was brought out by the panel, is one of the big obstacles in teaching deaf children. Deaf children visualize and get the concept of things they can see and perceive by touch or action.

I would like to illustrate a story one teacher told about the teaching of Paul Revere to her class. In reading comprehension, a paragraph described Paul Revere's famous midnight ride warning the colonists that the redcoats were coming, and how he made the ride through the streets of Boston. After it was over, through a question and answer period the teacher wanted to find out what the class could comprehend. She asked Johnny or Billy, "What was the story about?" The answer was, "the story was about a man who had on a red coat." This was the concrete thing the child could visualize from the paragraph. The abstract concept of warning someone that someone was coming could not be described, it could not be perceived.

I believe that in using captioned films to elaborate on the text, teachers of the deaf will have a wonderful opportunity to develop the teaching of reading along with the teaching presentation of new information in social studies, in general science lessons, and so forth.

Many, many efforts have been made to employ the use of films in the teaching of reading. We, in working with the deaf, try to adapt

these films to teach our deaf to read. I believe that Gallaudet College is currently using films in its reading program. I recall that when I was at Gallaudet College we used the Harvard reading film series to help develop better reading comprehension among our students. I think that through these captioned films programs we have a wonderful opportunity for exploring the possibilities of teaching the deaf child to read and to comprehend what he reads. I do not think that members of the panel will dispute me if I state that I feel that reading comprehension is of greater importance perhaps than language expression, because it is through receptive language that the deaf child begins to learn to express himself.

If he can receive this language and understand this language, then he will be able to express himself better. The teacher of the deaf has the greatest difficulty in the teaching of reading. She may teach a child to express himself in simple one or two word sentences, but she cannot expect him to understand a general paragraph of a textbook unless he or she has a strong foundation language.

An interesting point that I think should be brought out at this panel is that the population in our schools for the deaf in the United States is changing. The population that we had in schools for the deaf as recently as 20 years ago was made up of children who had lost their hearing after they had learned language. Today this has changed and the largest percentage of the children in our schools for the deaf are children who were born deaf. This, of course, I think, is understandable because of the advances in medical science in the past 20 years or so. Children who have diseases resulting in hearing loss are saved from the side effects because of wonder drugs. Children who formerly would have died in infancy are saved because of these wonder drugs. Therefore, we have many more children born with the handicaps of deafness now coming to our schools for the deaf.

Along with this type of pupil we have found that we have children with additional handicaps, handicaps sometimes difficult to define. More and more our experts are learning how to define these handicaps.

Just for the sake of generalization, we have children who are emotionally disturbed, for want of a better word. We have children who have language disorders which are greater than their hearing loss, or which are superimposed on their hearing loss.

Then of course we have a large population of deaf children who have definite retardation—not educational retardation but definite mental retardation—thus compounding the original task of teaching deaf children, and making the need for additional visual aids material greater and greater in our classrooms.

I think this point cannot be emphasized too strongly. Because in years to come I visualize this population change getting more critical rather than less critical, and the need for this visual aid type of program more important. I have one more point I would like to bring out, dealing with the training of teachers. For 10 years I was on the staff at Gallaudet College and directly involved in the teacher training program at Gallaudet College. I can now visualize what an important part is played by the use of films in a teacher training program.

For example, it was one of my responsibilities to take the teachers on educational tours, to visit other schools for the deaf, in order to become acquainted with the methods and techniques that prevailed

in other areas. One year I recall taking teachers to the American School for the Deaf in West Hartford, Conn., to view and observe the excellent school and preschool program, and then on to the Clarke School in Northampton, Mass., and to the Horace Mann School in Boston, one of our oldest and one of our larger day schools in the United States, down to the Rhode Island School in Providence, and on to the Lexington School in New York, and to New Jersey schools to visit the excellent vocational educational program, and back to Washington and out to Maryland, West Virginia, Virginia, and North Carolina.

Perhaps by using films we could bring these schools to the teacher training centers, not only at Gallaudet College but to all other teacher training centers.

Also we have in our profession a group of teachers whom we like to clasify as master teachers. These are ladies and some gentlemen who have special techniques or special qualities which give them a certain empathy with the deaf child not found in the average teacher of the deaf. These teachers try to pass on their techniques and skills to other teachers in order to perpetuate them. By using films we might preserve some of these techniques and skills and pass them on to trainees in our training centers.

I recall my days at Gallaudet. I took training under two very highly respected ladies, Miss Josephine Quinn, who was the supervising teacher at the school for the deaf, and Dr. Elizabeth Peet, both of whom had tremendous skills and abilities to pass on to their students in the training department. It is sad that we have not preserved these on film to pass on to future generations.

This is a wonderful opportunity facing us, preserving these skills and passing them on to teacher trainees.

I can visualize in the teacher training program wonderful international implications. Many, many people training to become teachers of the deaf come to the United States and want to get as much as possible out of their short stay in this country before returning to their own countries. And I can see where the exchange of films among our teacher training centers, not only in this country but perhaps in other countries, might be something that would broaden the understanding of the teaching techniques in the various countries.

I would like to reaffirm the comments made by the members of our panel and also to express the appreciation of the deaf people of Maine for the opportunity to come here and to speak on behalf of a program that has already given them many, many happy hours. Thank you very much.

Senator PELL. Senator Muskie, do you have any general comments or questions?

Senator MUSKIE. I would like to thank Mr. Youngs and all the members of the panel for their excellent statements. As always I have learned something.

I would like to emphasize one impression, one strong impression, that I have learned from the testimony this morning—that we are dealing not only with an invisible handicap, in the words of Dr. McClure, but we are also dealing with a problem with invisible ends. We do not really know, we cannot appreciate, the loss of resources and loss of happiness of human beings, the loss of opportunity that is

the result of this handicap. If this program can prevent some of it, it would be worth while.

I also would like to place emphasis on the fact that this new program, S. 2511, offers exciting possibilities beyond the captioned films. We do not know what. This is also invisible. This is an area for experimentation and research, imagination, initiative to develop the possibilities of educational films for the development of teaching techniques, development of skills in giving opportunities for learning to deaf children that we do not know of yet, cannot fully understand or appreciate yet.

And to me, important as the captioned films program is, all that an expansion of that program requires is more money. This is something that is relatively easy for the Congress to provide. But this other aspect of the program, S. 2511, the authorization of research, the actual production of films, is an exciting part, and I would hope in the long run the most productive part.

Senator PELL. I would like to ask one general question, if I could, of whomever would care to answer it.

Can you define what sort of jobs people who are born totally deaf or are totally deaf can perform? The point was raised earlier that with the decline of the number of blue-collar jobs compared with the white-collar jobs, fewer jobs were open to deaf people.

I wonder if you would sketch out the kind of jobs the deaf people can perform and are now performing with relative ease and skill and ability. I know Mr. Williams of the Lockheed Corp. is going to submit a statement concerning the program they have with a particular effort to get people to work there. I thought some of you might have some ideas of the kind of work deaf people can perform.

Dr. MCCLURE. In general, over the country different schools for the deaf have found that certain trades or occupations that they teach in their schools are successful in their own area. But one of the most popular and successful pursuits for a deaf person to follow, not necessarily the college student but the good average student, is the printing trade. Almost every large city newspaper will have a number of well-qualified and capable deaf printers. That means pressmen, linotype operators, photoengravers, and so forth. I would say that this is the bread-and-butter trade of the deaf man.

Deaf girls can successfully find positions in business practice, not the type of office work requiring dictation or transcribing of recordings, but in operating business machines, comptometers, or anything requiring copying. In Hartford, Conn., the American School mentioned by Mr. Youngs has been most successful in placing their girl graduates in big insurance companies there. Many schools get their graduates into banks.

When I was in Tennessee there were several girls working for Dun & Bradstreet. One of them was the head of a department there. There is almost no limit to the possibilities of a deaf person if there is a good education.

I know several young deaf men who are working in the space programs. There are one or two, and maybe more, down at White Sands. One is a very capable mathematician.

Maybe some of these other gentlemen would like to add to the ones I mentioned. There are just so many.

Senator PELL. Incidentally, in connection with this program of captioned films, they could emphasize these areas?

Dr. McCLURE. I should have brought that out. The printing trade in particular requires a good command of language and some of our students don't succeed in printing because they do not have the facility in language enabling them to set type quickly and accurately. I think more should be able to go into this field.

As I say, over the years the deaf have gained acceptance in this field. It is easy for them to get into the printers' union. I think the Government Printing Office here in Washington has over 80 deaf printers.

Senator PELL. For example, is there any film that now teaches composite work or the printing trade?

Dr. McCLURE. Not that I know of.

Senator PELL. This could be foreseen under this bill?

Dr. McCLURE. Yes; I think this would be a big help in the field of vocational training.

Senator MUSKIE. Mr. Youngs might care to comment on the contribution made by Mr. Leo Viner in Bangor, Maine.

Mr. YOUNGS. I do not know exactly how many deaf employees he has in his shoe plant in Bangor, but someone said there were 18. He has made a practice of hiring deaf people as a matter of policy because of the kind of work they have been turning out.

(A letter from Mr. Viner clarifying the above follows:)

VINER BROS., INC.,
Bangor, Maine, August ?, 1962.

Senator EDMUND S. MUSKIE,
Senate Office Building,
Washington, D.C.

DEAR SENATOR MUSKIE: It is encouraging to know that bill S. 2511 is being presented for the purpose of expanding the educational program for the deaf. Captioned films for the deaf are sure to stimulate interest in the educational program and eventually develop a potential and talented labor market.

We have been close to the deaf since 1927 when we first started to employ them. At one time as many as 60 persons out of 300 employees were handicapped and, of these, more than one-half were deaf mutes. Today there are 15 totally deaf people in our plant.

Even though our experience with the deaf has been very gratifying, we find that, if additional education had been offered to them, their welfare would have been much improved. We have observed that, once these people are employed, they undergo a great personal change. They are proud to carry responsibility and to be able to contribute to their own welfare rather than to depend on others.

We have also found that those deaf individuals who were fortunate enough to have had schooling are the highest earners, and yet those of not equal education manage to be good earners. Had these also been given the benefit of more education, they, too, could have had higher skills and higher earnings.

We feel that industry in general does not realize the contribution that the deaf person is able to offer. Their concentration is, of course, much sharper because they are not too easily distracted and their application to the job is remarkable. They take their jobs very seriously, always try to please and are seldom absent.

Industry would do itself a great service should it help to educate the deaf and to employ them. We look forward to seeing bill S. 2511 adopted.

Sincerely yours,

LEO VINER.

Mr. YOUNGS. They are also used down at the Warrent papermill in Westbrook where they have a large group of deaf employees, many of whom have been there as long as 20 or 25 years and are very highly respected employees.

Of course, as Dr. McClure said, the various States have different types of trades. In Maine, of course, the papermill and shoe industry are the two leading trades for our deaf people.

Dr. McCLURE. I have one I would like to add to that. Last February I had the opportunity of attending a symposium in Denver and very prominent in the talks and discussions of the meeting was the vice president, I believe, of the company that manufactures Samsonite luggage. They hire deaf employees. I believe more than half of their employees are deaf. In their company relationships they have picnics and all manner of recreational activities where the deaf have, in that particular company, been so successful and so well accepted that it is really a point of pride with the Samsonite people.

Senator PELL. Thank you, very much.

I have one further question, which I find myself concerned with as a layman, and that is the question of statistics. I realize about a quarter of a million of these people are totally deaf. I was wondering how many were born totally deaf and became totally deaf, and also how many people in your estimation, if not deaf, partially deaf, at least hard of hearing are in the United States? This has not been reported as yet.

Dr. McCLURE. That is a tough question. That is like asking how many people in the United State are partially blind because they wear glasses. It depends upon the degree.

But I think the figure is about 250,000, probably, totally deaf persons. In our schools for the deaf, as Mr. Youngs mentioned, the population is changing and we do not have the hard-of-hearing children we used to have.

In my school and in others where surveys have been made, probably almost 95 percent of the children were born deaf or became deaf so early that if they heard no one was able to identify it. And in extending the numbers. I would say that you could easily double or triple the number of 250,000 to include the severely hard-of-hearing persons who really do not communicate very well. They may have a little residual hearing, but it is not sufficient to meet the needs of everyday communication in life, so that it certainly would be half a million or more.

Senator PELL. How many movie theaters throughout the country have equipment into which you can plug an earphone for amplification? Do you have any percentage on that?

Mr. YOUNGS. Only one, and that is Radio City Music Hall. That is the only one I know of.

Dr. McCLURE. Many, many churches have a front row or someplace in the church equipped with hearing aids for the elderly people who have lost their hearing, but this, of course, is not the problem we are speaking of. At the same time it identifies another group of hearing handicapped persons and identifies provisions made for them in certain situations.

Senator PELL. So, in brief, about 250,000 are totally deaf, and almost the same number are very hard of hearing——

Dr. McCLURE. I would say more than that.

Senator PELL. And an indeterminate number who are semiblind like you and I are.

Dr. McCLURE. Yes.

Senator PELL. How do we compare today with the work that is being done in this field abroad for the education of the deaf? I wonder if any of you have any knowledge as to the relative training?

Mr. AMBROSEN. In Europe as compared to Maryland? I think basically we have to understand the European style of education where

children start their apprenticeship very early. This is true in Great Britain also.

Senator PELL. Would you say they are ahead of us or behind us in this field?

Mr. AMBROSEN. I think we are ahead because we do not start apprenticeship at 14 years of age. We keep our children in school and give them a broader education until they graduate at the high school level, as a student 18 or 19 years of age. Whereas in the foreign countries only the select students are kept in school beyond the 13- to 14-age level. The vast majority of them start their apprenticeship very early. I would say that our educational system is far advanced. This was borne out by Dr. Greenaway, the head master of the Yorkshire Residential School for the Deaf in Lancaster, England, who surveyed the schools for the deaf in the United States. He went all over the United States a few years ago, and one of his observations was that we are much advanced over the schools on the Continent and in Great Britain.

Senator PELL. This is particularly interesting to me because the feeling is that general education in Western Europe is ahead of ours.

Mr. AMBROSEN. I disagree.

Senator PELL. You very strongly feel that they are definitely behind us when it comes to the education of the deaf?

Mr. AMBROSEN. Yes, because of the reason just stated.

Senator PELL. Now just for the sake of argument, are the schools for the deaf in Germany or Great Britain like ours?

Mr. AMBROSEN. Very similar to ours, yes.

Senator PELL. Does every child who is totally deaf have an opportunity to go to one?

Mr. AMBROSEN. I believe so, especially in Great Britain. They have baby clinics all over Great Britain and they discover deafness in children very, very early.

Senator PELL. Do you have any further comments?

Dr. MCCLURE. I would like to add that deaf persons in America are generally considered much more independent and self-supporting and self-sufficient than they are in virtually any other country. They manage their own affairs, own homes, own automobiles, and they do not have and do not need the assistance in later life, that many foreign countries provide for their deaf. It is because of the opportunities we have tried to provide for them.

(The prepared statement of Mr. Youngs follows:)

PREPARED STATEMENT OF JOSEPH P. YOUNGS, JR., SUPERINTENDENT, GOVERNOR BAXTER STATE SCHOOL FOR THE DEAF, PORTLAND, MAINE

The captioned films program has provided, in the few short years it has been in operation, untold happiness to thousands of deaf people throughout the United States. I am honored to have the privilege of speaking in behalf of this program and to verify the general feeling that prevails among those of us who are engaged in teaching deaf children that in the captioned films program we have a tremendous opportunity for developing educational resources of unlimited potentials.

During the past academic year in my own school for the deaf in Maine, we have enjoyed regular showings of captioned films for the deaf. All of the children enrolled in our school have been able to enjoy this program. Basically, the purpose of offering these films to the children has been purely entertainment and recreational in nature. Probably no offering in the field of simple entertainment can be said to give as much pleasure to the general population of the deaf as these captioned films have done. It did not take long, however, to realize that other important benefits in other areas of development were being derived indirectly

from these movies. The children were able to grasp and understand the story line and basic theme of the films more accurately, particularly those of a historical nature or those adapted from literary classics. The effect on the acquisition of language and in the development of reading skills is also noticeable. Socially, our children have been able to acquire a broader understanding of the customs and habits of our own society as well as those of others. Even in the areas of emotional and moral development there are opportunities for reaching our deaf children through these films.

It is exciting to visualize what doors to learning can be opened through the development of certain types of programed instruction as outlined and presented with the aid of captioned films. Teachers of the deaf have long resorted to making their own visual aid materials, to dramatizing their own experience, stories, and adapting texts and other reading material to the needs and limitations of their deaf pupils. With the use of films they will be able to use the same techniques but broaden their scope and even structure their programs more completely. The beauty of such a program lies in the possibilities of research, where needed, and in the exchanging of ideas among the various schools and classrooms for the deaf.

The use of captioned films in developing teaching aids, particularly in the area of language development for the deaf, is more than a scheme. Educators have long visualized the possibilities such a program would offer. As in most endeavors of this type, the greatest obstacle has been in raising adequate funds to to implement such a program. Now, as suitable training and teaching aids become available, it will be necessary to train our teachers in the use of such equipment, in the techniques to be employed, and in familiarization with the resource material.

The production and distribution of educational and training films for the deaf in itself will not be meeting the challenge, unless the teaching personnel is able to use these films to their maximum advantages. This would necessitate not only training teachers currently active in their professions in schools and classes for the deaf but in setting up opportunities for training young men and women who are studying to become teachers of the deaf.

Apart from the potentialities which such teaching aids would offer our schools and classes for the deaf, the captioned films program would be able to serve rehabilitation counselors, social workers, people engaged in the preschool education of the deaf, hearing and speech centers, parents of deaf children, college students, and research people.

This bill provides for the development of a broad and concerted advancement in the area of research in the use of educational and training films for the deaf, the production and distribution of these films, and for the training of persons in the use of these films. I strongly urge that every consideration be given toward its passage so that deaf adults and children of today and the deaf children of the future may enjoy richer experiences that will broaden their understanding and appreciation of the society in which we live and that they may acquire the basic skills of language and reading that are so important in their educational program.

I strongly believe that the proposed captioned films projects will mark the beginning of a new and exciting era in the lives of deaf people. The ideas which have been expressed at this panel merely scratch the surface of what such a program could offer. I humbly and earnestly request that every consideration be given toward the passage of S. 2511.

Senator PELL. We will call our next witnesses. First we will hear from Dr. Robert Frisina, professor of audiology and director, Hearing and Speech Center, Gallaudet College, Washington, D.C.

STATEMENT OF ROBERT FRISINA, PROFESSOR OF AUDIOLOGY AND DIRECTOR, HEARING AND SPEECH CENTER, GALLAUDET COLLEGE, WASHINGTON, D.C.

Mr. FRISINA. Mr. Chairman, I would like to express my appreciation for the opportunity to come and speak in behalf of S. 2511.

In order to facilitate questions you might have, I would like to say as director of the Hearing and Speech Center at Gallaudet College, that we have a diagnostic program and are interested particularly in children with presumed auditory disorders. We extend the diag-

nostic facilities to school-age children throughout the country, but most of our youngsters do come from the Metropolitan Washington area. We also have an outpatient clinic for adults who have auditory disorders of one sort and another.

In addition to the diagnostic program, we have a training program for the college deaf students. This is particularly geared for the area of communication, lipreading, speech correction and the utilization of hearing aids.

In addition to this we offer courses to the hearing persons in the graduate department of education who are studying to become teachers of the deaf. We offer courses in audiology to them.

In addition to this we have a research program principally related to communication and auditory disorders.

Finally, we have a preschool program for deaf children, children with auditory disorders other than deafness, and for parents of these young infants and preschool children.

Other responsibilities that I have at the moment include such things as associate editor of the American Annals of the Deaf, which is the oldest educational journal in the United States. The January edition of the American Annals for the Deaf annually presents statistical information concerning the numbers of schools in the United States, Canada, Australia, and Africa. In addition to this, it has very specific information concerning per capita costs, types of instruction utilized, and so on.

I am also chairman of the Technical Committee of the American Hearing Society, which is aimed at another group, the hard-of-hearing group throughout the United States.

I am also a member of the Research Committee of the Conference of Executives of American Schools for the Deaf.

With your permission, I would like to read a brief statement.

Senator PELL. Please proceed.

Mr. FRISINA. A basic problem facing the person deaf from early life is the acquisition of the English language, which readily can be communicated through oral, written, or gestural means. In a spontaneous manner, the nondeaf child acquires language through hearing and uses hearing to monitor his own vocal output.

It is evident that the structure of the English language is learned by the average nondeaf child as early as the first 30 to 36 months of life. In addition, the preschool child with average hearing has learned a vocabulary of words numbering in the thousands. This ability to comprehend and express the English language is possible principally because of hearing.

On the other hand, deafness imposes a serious obstacle to the learning of language and communication and hence the fullest development of basic potentials, because it diminishes or precludes the natural learning process which is designed for the ear.

The child with deafness unfortunately is coupled to his environment principally through vision. However, the fact that the majority group in our society is coupled to the world through hearing plus vision places the deaf in a seriously handicapped position.

The formal education of deaf persons, the development of personal and social maturity, and their becoming contributing members of our society require special instructional techniques. The factor

common to the pursuit of all these goals is the dependence of the deaf person on his visual system.

Speaking as one who deals with the complex problems of deaf persons on a daily basis, it is a privilege to have this opportunity to speak in behalf of S. 2511. The unique and forward-looking aspect of S. 2511 is its intent to provide special programing, through vision, the principal channel of communication and learning open to the deaf.

Prior research in the areas of communication, educational achievement, personal and social adjustment, and occupational status have defined the problem. Research in conjunction with S. 2511 in my opinion relates to:

(1) Selection and utilization of electromechanical devices related to filmed materials;

(2) Development and validation of film programs and procedures; and

(3) The application and integration of such devices and materials into existing and planned curricula.

In short, the type of research required is of an applied nature, since prior research has defined the gap areas in the development of the deaf.

Such research should result in maximum effectiveness and efficiency in terms of both human and financial efforts expended.

Senator PELL. Thank you very much, indeed.

Do you have any questions, Senator Muskie?

Senator MUSKIE. I take it you have not had an opportunity to even consider the resources of the college to undertake research in the audio——

Mr. FRISINA. An all-out effort in this regard has not been possible until this time.

If I may make an additional comment or two with respect to some of the things that have been said before. I think it is important to clarify that this figure of 250,000 deaf in the United States is at best a conservative estimate. When we speak of deaf versus hard of hearing, I think the function of a hearing aid becomes critical in this consideration.

For example, a hearing aid is designed to amplify sound. Unfortunately, it does not clarify sound. Many of the problems confronting a so-called hard-of-hearing population in the United States today is the problem in clarification of hearing, not just sensitivity of hearing.

Senator PELL. I think it would be appropriate to insert in the record here the present language of Public Law 85–905 which states in paragraph (3), section 1:

"The term 'deaf person' includes a person whose hearing is severely impaired."

Mr. FRISINA. Yes, sir, severely impaired hearing is a more accurate term because the population that would really benefit from this includes those who have measurable amounts of hearing.

The point I am emphasizing is the hearing aid in and of itself does not convert the basic problem of a number of youngsters who need educational programs similar to those of the deaf. And this, I am convinced, extends to those who have some remaining hearing. The addition or use of a hearing aid does not reverse the condition in quite the same way that glasses do many visual problems.

Senator MUSKIE. Would you be able to give us some idea of the research budget of Gallaudet College?

Mr. FRISINA. Research projects?

Senator MUSKIE. Research budget of Gallaudet College?

Mr. FRISINA. The research budget at the moment is quite limited insofar as the research that is funded by the college proper. I do not think it is beyond $20,000 or $30,000 specifically for research. Grant research is sought in most instances. It is a very limited budget.

Senator PELL. What portion of the films that you would use would be of a technical teaching nature and what would be of a general nature? How do you see the breakdown of this program if enacted?

Mr. FRISINA. The breakdown in the utilization of films? I would say there are several aspects, of course. Educational in the sense of direct work with the youngsters is the most critical need as I would see it. This is the personal impression in terms of overall good that this could do for the deaf population. I think this should get primary emphasis.

Now other areas have to do with socialization, have to do with news media, bringing them into line with the most recent developments. This would be another area. But I would say that major emphasis should be on those children in educational institutions. This is where factor of language is most critical.

As one raises the language acquisition, the language ability of these children, they are going to be in a better position to accept news media which is not directly designed for them. In other words, presumably, if you educate them (and it is this area which has the greatest potential as far as I am concerned), if they come out with a bona fide high school education, achieving the 12 grades, then they are capable of going on at a much greater pace.

There is a serious educational lag at this point in the average child finishing school no matter where—Europe, the United States, Australia, or England. There is a serious educational lag and it is this area which has, for me, the greatest potential. With better education they can achieve more as individuals, as self-sustaining members of our society.

Senator MUSKIE. Do the students come together there from all over the country?

Mr. FRISINA. Yes, sir.

Senator MUSKIE. How many educational institutions are represented in a typical class?

Mr. FRISINA. At the moment there are some 275 different facilities around the country dealing with deaf individuals, deaf and hard of hearing individuals. As indicated previously, there are approximately 75 public residential schools and we have some 25 private and denominational residential situations.

In addition to this there are some day schools in metropolitan areas. So that the total number of facilities available, with varying qualities with respect to output and achievement insofar as the teaching is concerned, would run somewhere around 275. The total number of students in these situations is approximately 28,000 to 30,000, at the moment.

Now all of these situations in one way or another, not every one specifically but all of them directly or indirectly have an equal opportunity to send students to Gallaudt College. As a result, the present

makeup of the student population at Gallaudet College represents almost every State in the Union in addition to Canada and a few foreign countries.

Senator MUSKIE. Is there a very great variation in the preparation of the students who come to Gallaudet?

Mr. FRISINA. Objective information concerning the differences in programs is difficult to come by. But on an opinion basis I would say there are substantial differences among schools. But even the best schools do not achieve anything approximating what we expect of the hearing child. This comes right back to the language deficit.

Senator MUSKIE. Could you give us some idea of the educational age of a freshman at Gallaudet compared to the educational age of a normal hearing child?

Mr. FRISINA. The educational age of those seeking entrance to Gallaudet approximates 10th grade achievement—grade 10 approximately. Some are above and some are slightly below.

Senator MUSKIE. That represents about a 2-year gap?

Mr. FRISINA. The figure for the discrepancy between mental potential and educational achievement is roughly 3 to 4 years across the country. In other words, you have loaded or selected samples applying for entrance to Gallaudet. This would not be an accurate reflection of the problems facing the gentlemen who appeared previously. In other words, they are confronted with the multiple handicap as well as the straight deaf child. So that approximately 15 to 20 percent of the children in schools for the deaf across the country have additional handicaps, and this is a conservative estimate. It should be more like 25. One out of four children in a typical school for the deaf has problems other than straight deafness. So that if you average out the academic lag it approximates 3 to 4 years across the country, taking every child into consideration. This is a serious deficit.

Senator MUSKIE. I assume some institutions do a notably better job than others in preparing students for Gallaudet?

Mr. FRISINA. Yes, but again objective information of this type is difficult to really pinpoint.

Senator MUSKIE. I ask the question not to pinpoint which institutions do better, but the reasons why they do better.

Mr. FRISINA. I think one of the basic problems confronting all of these schools, all of these gentlemen, is the selection and the acquisition of good trained teachers—just trained teachers. There is a serious lack of trained teachers in this country at this time. This has been recognized and something is being done to remedy the situation. There are certain schools who pay more than others, there are certain schools in parts of the country where teachers would like to be. There are many factors that enter into the ultimate faculty gathered by each superintendent.

For example, in some States the school is out in a rural area far away from the cities. Contrast this with a school near a metropolitan area where you have concentration of professional persons who have wives who are teachers. It is much easier to get a more competent or more qualified staff if you are in a concentrated area. So you find these differences entering into the quality of the end product.

Senator MUSKIE. So here we come down to the educational films as a teacher, and also as a teacher of teachers.

Mr. FRISINA. It is a teacher of teachers and also a teacher. It is a method of standardizing the most effective approach to deaf children, so that these schools with a low budget, and there are many of them in this country, can take advantage of master teachers and programs which have been devised and validated.

Senator MUSKIE. An interesting story along that line concerns a small high school in the State of Wisconsin, I believe, too small to afford a physics department. The story goes, and I think this is true, one year the principal offered a physics course to all members of the senior class who wanted to take it. When he got an expression of interest it was disclosed there would be no teacher, the school could not afford a laboratory, and the means for instruction was an excellent physics course on film. I think you all know about this course. It is an outstanding course. The students would have to put the film up every day, and take it back down the next day. This is the way they taught themselves by means of an educational film.

I understand that at the end of the year the senior class took the State physics exam and they all cracked well above the average without the benefit of any physical teacher present and without the benefit of any laboratory. This, I think, is an illustration of the potential magic of educational films.

Senator PELL. What degrees are offered at Gallaudet?

Mr. FRISINA. The bachelor of arts and bachelor of science degrees.

Senator PELL. Does it give a master's?

Mr. FRISINA. They have just begun a master's degree in education for the best students. For years, since 1894, I believe, they have been giving a master of arts degree, which is now a master degree in education for hearing graduate students. But they have just inaugurated a master's program for deaf students who wish to become teachers of the deaf.

Senator PELL. Thank you very much, indeed, for your testimony.

Now I think we are particularly lucky to have a student of Gallaudet College, and it is my pleasure to introduce Miss Joan Fontaine of West Warwick, R.I. I am so happy she was able to come down from Rhode Island to testify here.

If you want to bring an interpreter or anyone with you, please do so.

STATEMENT OF MISS JOAN FONTAINE, WEST WARWICK, R.I.

Senator PELL. Miss Fontaine, as I understand it, you are in your second year, or third year, at Gallaudet?

Miss FONTAINE. Second year at Gallaudet.

Senator PELL. In your second year, fine.

Do you have some remarks or thoughts you care to give us?

Miss FONTAINE. Mr. Chairman, Senator Muskie, it is a great pleasure to appear before you today, and I have some information that I would like to contribute.

I have seen and experienced the difference between seeing a film with captions and one without captions. With captions it is much easier for us to understand. Naturally this is so because we can read them and we do not have to strain our eyes to see the lips which are moving constantly.

If you turn off your television, the voice on your television, and just watch it, you will understand why this is so. Without captions

on a film the student cannot watch the teacher on the side trying to translate it and at the same time watch the film. If you have a deaf teacher, then you cannot see movies at all, and movies can help us to learn a great deal. It has been so all through high school.

I was not able to attend a deaf high school. I attended high schools and saw movies there which I could not understand myself because I could not hear clearly enough to understand.

The Federal Government seems to spend a great deal of money on educating the deaf people here in Washington at Gallaudet College. Why not put all this money to a greater benefit? If we could understand what is being taught to us it would be a lot easier.

I think one of the gentlemen mentioned that we have captions on television. Well, I understand that we have Conelrad test warnings on television with no picture whatsoever. How would a deaf person know? How would he be able to hear and know? If we ever did have such an emergency he would not know; he would not be able to evacuate. All these things are important.

I think that S. 2511 would be a very good bill to pass. Are there any questions?

Senator MUSKIE. Are you totally deaf, Miss Fontaine?

Miss FONTAINE. No, I am not.

Senator MUSKIE. Have you attended a deaf school throughout your educational years?

Miss FONTAINE. No, I have not. The only school for the deaf I have attended is Gallaudet College for the Deaf.

Senator MUSKIE. Before that you attended public schools?

Miss FONTAINE. I attended a public high school which made it very difficult. Many times I wanted to give up, to quit school because I could not understand. But I had very good pushers behind me telling me this was not the way I should look at it. I managed to get through high school and to get in at Gallaudet.

Senator MUSKIE. Were you able to move right along without any break in your progress?

Miss FONTAINE. Yes, I did. The State of Rhode Island provided me with a teacher from the State who came down twice a week and taught me how to lipread. Then I attended a school for the hard of hearing and I had great training up there. That is why I could go through school without having too much difficulty. But I did have to have a front seat, and whenever a movie was shown I would have to have the script before me because I could not understand everything that was going on.

Senator MUSKIE. The testimony here this morning has been that the greatest problem facing the deaf is language, the acquisition of a vocabulary. Would you agree with that from your own experience?

Miss FONTAINE. Yes, I would. Seeing it is like having repetition of hearing it. That is where we come in. The deaf could learn a lot more language if they could just see it before them. It is like reading a book. It takes a great deal of time and a lot of money to make such films, but I have seen both kinds and I do prefer the ones with the caption.

Senator MUSKIE. I would be interested to know the extent of your hearing. Can you hear anything at all that I am saying?

Miss FONTAINE. Yes, I can. I can pick up noises a lot easier than I can voices.

Senator MUSKIE. Most of what is said can be classified as noises.

Miss FONTAINE. I do not consider S. 2511 a noise. I consider there is talking to be done about it.

Senator MUSKIE. Thank you, Miss Fontaine. It has been a pleasure to have you here this morning, and I am grateful you were able to come and for your willingness to speak up.

Miss FONTAINE. I was so happy to come.

Senator PELL. At Gallaudet College how many of the students would you say are totally deaf, or how many are like you, very hard of hearing?

Miss FONTAINE. Well, I would say that most of the students are totally deaf.

Senator PELL. Do you know how to talk with your fingers as well?

Miss FONTAINE. Yes, I can.

Senator PELL. So you can both talk and understand——

Miss FONTAINE. Pardon?

Senator PELL. You can both talk with your fingers and understand the language?

Miss FONTAINE. Right. I have been watching the interpreter over here a great deal, and I have been able by both watching him and with my hearing to understand a great deal.

Senator PELL. Has there been any discussion of this bill at Gallaudet College amongst the students?

Miss FONTAINE. Yes. After I saw you in April, and we discussed the bill, I took a copy with me back to the school and showed it to a great many of the girls and boys. It was overwhelming to see the expression on their faces. That is why I contacted you and told you how much this meant to the deaf. I wanted to see their reaction as well as what I thought of it, and it really was something. This is what they want; this is what they need. If we can have this we can learn a great deal more than we know already. All we need is a chance, an opportunity.

Senator PELL. I thank you very much, indeed, Miss Fontaine, for coming and for being with us today, and thank you for your support of this bill.

Miss FONTAINE. Thank you very much.

Senator PELL. Our next witness is Mr. Alexander Fleishman, a member of the National Association of the Deaf, and president of the National Association for the Jewish Deaf.

Mr. Fleishman, you have a written statement?

Mr. FLEISHMAN. Yes.

Senator PELL. You may proceed.

STATEMENT OF ALEXANDER FLEISHMAN, MEMBER, NATIONAL ASSOCIATION OF THE DEAF; PRESIDENT, NATIONAL ASSOCIATION FOR JEWISH DEAF, AND PRESIDENT, AMERICAN ATHLETIC ASSOCIATION OF DEAF, WASHINGTON, D.C.

Mr. FLEISHMAN. I am Alexander Fleishman, of Silver Spring, Md. I represent the following organizations:

As appointed representative for National Association of the Deaf.

As president of American Athletic Association of the Deaf.

As president of National Congress of Jewish Deaf.

As president of Suburban Maryland Association of the Deaf.

The total membership of the above-named organizations ranges around the 50,000 mark. Each of these organizations has recorded endorsement and anticipation of the passage of this bill.

I would like to refer to a 1960 conference and NAD President Byron E. Burnes' statement appearing in the report of a conference on the utilization of captioned films for the deaf. The report says in part, and I quote:

> Dr. Burnes noted some apprehensions on the part of the adult deaf. These apprehensions center about the following points:
> (*a*) That the adult deaf may not be consulted regarding development of the program.
> (*b*) That selection of films may not reflect their interests and desires.
> (*c*) They originally looked askance at the placement of the program in an office where there was (at that time) no expert on the deaf.

Dr. Burnes then expressed a hope for a comprehensive program while recognizing that support then available was not sufficient.

Two years later it is my pleasure and duty to report that these concerns have largely disappeared. The fact of my presence here today indicates that the adult deaf are being considered in the development of the program. There is other evidence of a more continuing nature.

As to the selection of films, the adult deaf populace has given a more than satisfactory response to the subjects offered, judging from the large attendance everywhere when such captioned films are being screened. There is an overwhelming demand for the films. About the only objection heard is that it is difficult to get them. This, we have no doubt, is due to shortage of materials and not to any defect in the distribution system.

Incidentally, we take pride in the fact that a deaf man, Ray Gallimore, of the Indiana School for the Deaf, is the director of distribution.

From rather wide contacts with the deaf for whom I speak I believe that we are in essential agreement with others who support S. 2511.

We believe that there is a great need for—

(*a*) More captioned films of wide, general interest.
(*b*) Plentiful educational films for school use.
(*c*) Educational and training films for the adult deaf.
(*d*) Collateral activities such as training, research, and production so that the service will have maximum effectiveness.

As a worthwhile example, the new program might produce a film of the Tenth International Games of the Deaf to be held in Washington, D.C., June 27 to July 3, 1965. Deaf athletes from 30 or 40 countries are expected to participate. Such a film shown around the country to some 700 clubs and 100 schools for the deaf would have real value. Not only would it serve to show the accomplishments of the deaf but it would instill an increased interest in physical fitness and sports participation. At the same time it would help to promote the games which are of worldwide interest to the deaf. If the film could be made available for hearing audiences, it might help to spread understanding that we deaf are really not so different from other people.

I have said that the adult deaf favor development of the educational aspects of captioned films and we stand by that point of view. But may I emphasize again that providing films of a recreational kind is important, too. We who are deaf have limited opportunities for worthwhile recreation. Many of the things which hearing people take for granted such as radio, television, plays, and music cannot be enjoyed to any extent by the deaf. Captioned films can fill a great need in our lives. We hope that this need will not be forgotten as the program pushes ahead.

We hope, also, to see the day when there may be some captioned films on television. This would help greatly to keep us abreast of the times. It would enable us to achieve a greater feeling of belonging to the world in which we live. This we wish very much to do.

The Suburban Maryland Association of the Deaf has conducted a small program to acquaint the deaf with the proposed new legislation now under consideration. I repeat, over 700 organizations of wide variety have endorsed the captioned films program, some in a formal manner, others by their use of the films. I believe that the need is far greater than was realized when the law was first introduced. The film approach to the needs and problems of the deaf is affirmative and sound. On behalf of the deaf of America, I speak with deepest conviction that S. 2511 should be passed.

Senator PELL. Thank you very much, indeed, Mr. Fleishman.

I wonder if you have any thoughts or questions, Senator Muskie?

Senator MUSKIE. I would like to express my appreciation, Mr. Fleishman, for your appearance here this morning.

As a note of personal interest, I am curious as to whether you have been totally deaf from birth?

Mr. FLEISHMAN. No. I lost my hearing at 7 years of age from a mastoid operation.

Senator MUSKIE. Did you attend schools for the deaf?

Mr. FLEISHMAN. At first I went to regular public schools in New York City. Then I went to a special school and also attended a school for the deaf. After that I went to high school and later to the New York School for the Deaf in New York, in White Plains, N.Y.

Senator MUSKIE. What is your present occupation, Mr. Fleishman?

Mr. FLEISHMAN. I am an advertising makeup man in the Washington Post newspaper.

Senator MUSKIE. Have you been handicapped by the fact that you are hard of hearing?

Mr. FLEISHMAN. I do not hear at all, I do not hear anything. I cannot use the telephone——

Senator MUSKIE. I am not sure that is a handicap. Thank you, Mr. Fleishman.

Senator PELL. Mr. Fleishman, do you believe if this bill passes, as we hope it will, that in the administration of the bill utilization should be made of some deaf people?

Mr. FLEISHMAN. Yes.

Senator PELL. I would agree with you and hope that the Department of Health, Education, and Welfare will bear that in mind when filling these jobs.

Do you find you can lead a relatively normal life here in Washington, or do you find that your associations are limited to only people who are also deaf?

Mr. FLEISHMAN. Well, in my case, I am in the middle. In the organizations I represent I often speak to hearing people, but my social life is limited to deaf people.

Senator PELL. Can you lipread as well as reading?

Mr. FLEISHMAN. Yes, very well.

Senator PELL. Can you understand fairly clearly through the lips or not?

Mr. FLEISHMAN. It depends.

Senator PELL. Would you also tell us about how many people are represented in all the organizations which you represent? You say here 50,000, but it would seem to me that there might be even more.

Mr. FLEISHMAN. There are many more. With 700 organizations all over the country, I would say probably 150,000 altogether.

Senator PELL. Thank you very much, Mr. Fleishman, for coming here. You have added a great deal to the testimony.

Senator Muskie, before I conclude the hearings I wonder if you have any observations or thoughts you would like to present at this time?

Senator MUSKIE. If I could conceive of a way to express this problem more dramatically than it has been expressed here this morning, I would take additional time to do so. I think all of us in this room understand what it is we are concerned with and what we hope can be accomplished if this legislation is approved.

One of the advantages in being close to a group of this kind and a problem of this kind is a community of interest that makes the group a very tight group and very effective one. I know that here in the Halls of Congress it is the people who shout the loudest who get the most attention. We are not in a position to make quite as much noise as some of these other people. If we were, we would not hear ourselves.

I think there is a message here that will have very strong appeal in the Congress, and I am very optimistic about the prospects of this legislation. I hope that even though it is rather late in the session to get new legislation considered, we can get this bill finally enacted and sent to the White House in this session. We can if you people would help us in the way that only you can.

Senator PELL. I thank you, Senator Muskie, because you are the organized spearhead and sponsor of this legislation and you have been very good to give up your whole morning. I know at least of one other committee meeting and perhaps others.

I would like to have inserted in the record following your statement at the opening of the hearing the statement by my colleague, Congressman John E. Fogarty, who has introduced a companion bill, H.R. 9456. I know that all of us are familiar with the outstanding achievements of Congressman Fogarty in the field of health and welfare legislation. Indeed, he is well known here and abroad for all of his contributions. At this time I, too, would like to express my thanks to all the witnesses

who have come a long way at considerable inconvenience in some cases, underlining Senator Muskie's point as to the dramatic nature of the testimony which has brought it home more than any other way by having people who are actually totally deaf themselves testify, and I add my hope that this bill will be enacted into law prior to the end of this session of Congress.

At this point I will insert in the record a letter received from Mr. Williams of Lockheed Co.

(The letter referred to follows:)

LOCKHEED MISSILES & SPACE CO.,
August 9, 1962.

Hon. CLAIBORNE PELL,
U.S. Senate,
Committee on Labor and Public Welfare,
Washington, D.C.

DEAR SENATOR PELL: I very much appreciate your invitation to testify on Senate bill 2511 and submit the following statement for the record of hearings on this bill:

My name is William H. Williams and I am a member of the education and training staff of the Lockheed Missiles & Space Co., located in Sunnyvale, Calif. My primary responsibility is training company employees in electrical manufacturing skills, but for the past 2 years I have—in addition to my regular duties—trained deaf persons for placement in the company.

As preparation for this work, I included in my college curriculum courses in speech therapy and special problems, including a thesis on training aids and techniques used in teaching technical and abstract subjects to the deaf.

During these 2 years I have trained some 50 persons—all totally deaf and about one-half of whom also are mute. These persons have been placed in a wide variety of occupations at Lockheed—including machinists, sheet metal assembly, chemists, draftsmen, electrical assembly, and others. As you may know, our practice in this regard is somewhat unusual; most employers tend to place all deaf persons in a single organization performing only that organization's function.

Our experience with this program has been that these specially trained employees have attained above-average performance in the variety of assignments they have been given. There are several factors which, we feel, account for this. The deaf person is free of several of the major sources of distraction; because he "speaks" with his hands he has developed unusual manual dexterity, and he has a higher than average appreciation of his job opportunity. May I point out that these are inherent skills which training normally does not impart to normal employees. If normal training and skills can somehow be superimposed on the deaf person's inherent advantages, he can become a superior employee.

There are, as you know, large numbers of employable deaf persons who cannot find employment. I feel that a major obstacle to their employment is the belief by potential employers that the deaf, because of the communications barrier, cannot be given successful inplant job training without extra cost and, later, cannot be given work instruction except with great difficulty.

At the present time, an employer who wishes to use deaf persons almost of necessity must employ a specially trained instructor like myself to train and supervise them. This is, of course, an extra cost to the employer, and in the case of smaller businesses, prohibitively so. Specially prepared captioned film, available on a free or reasonable cost basis to employees for the purpose of training the deaf in specific occupations would, in my opinion, do much to break this barrier to wider spread employment of deaf persons in business and industry. Further, I believe that contact with deaf persons during the training period will effectively dispel the average employer's concern over the second problem—that of instructing the employees on the job. Our experience has been that this is virtually no problem.

Another value of captioned films for training purposes is that they can make training available to the deaf in almost any nonabstract occupation. Most deaf persons today, if they are employed at all, work in either janitorial or repetitive manufacturing jobs—in other words, in those jobs requiring a minimum of training and instruction. This, again, is a reflection of the average employer's concern with the communication barrier and again, in my opinion, could be overcome by the availability of effective training films.

As stated above, the medium of motion pictures, in my opinion, can be effectively used to teach virtually all nonabstract job skills. I have, in fact, tried to use films in our training programs for deaf employees. Because of the lack of specially prepared films, I used our standard training pictures. Since these films lack captions, it was necessary to stand beside the screen and speak the audio part through sign language. This proved unworkable because: (1) the lack of light prevented the students' seeing my gestures, and (2) my sign language necessarily diverted the students' attention from the picture on the screen. Captioned films would eliminate both of these objections and permit more effective training.

To my knowledge, there presently are no specially prepared captioned training films available for our and other would-be employers' use for training deaf employees. The reason apparently is that there are not enough training centers as potential customers to make the production of such films commercially profitable. This is not, however, a valid commentary of the need, by the deaf, for the opportunities which could be created by the availability of such films. Additionally, our own experience is that employers similarly would benefit by the availability of a new source of employees of above-average capability.

I appreciate the opportunity to address your committee on a subject which I feel is of much importance at this time. If I can be of further service, either in connection with S. 2511 or the general subject of employing and training the deaf, I urge that you call on me.

Very truly yours,

WILLIAM H. WILLIAMS,
Special Courses Instructor, Education and Training.

Senator PELL. Thank you very much. This concludes the hearings of the special subcommittee.

(Whereupon, at 12:25 p.m., the special subcommittee adjourned.)

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