was slightly positive in 4 cases and negative in 85 cases. Piltz-Westphal reflex was positive in 2³ and negative in 85 cases.

Great care was exercised in measuring the pupils on account of the tendency of the eyes to change their visual lines. One is apt to complicate the accommodation and convergence reflex with the other tests. The negative reactions of the pupil appear to be due (1) to loss or partial loss of function through defective nerve innervation; (2) defect in attention; (3) diminished appreciation.

Corneal sensibility was diminished in 69 cases and present in 17.

The visual color fields were examined in 81 cases. All were found concentrically contracted. The largest field was 30 degrees. The smallest 0 degrees. The fields were practically abolished. The average of the 81 cases was 10.6 degrees, which was a marked contraction from the normal. This may be explained partially by the inattention of those patients, diminished capacity for externalization and finally, and not least, by the edema and congestion of the optic nerve (perineuritis) in the first stage of degeneration of the nerve and by the ultimate shrinkage of the new connective tissue in the partial atrophy of the nerve.

The changes in the discs, pupils, visual fields and corneal sensibility which, when taken together, constitute the new syndrome, are all in accord with each other. In our examination of all other types of insanity, imbecility or idiocy we have found no other condition similar to what we have outlined here for dementia præcox.

The clinical significance of these findings is of importance:

1. They indicate that dementia præcox is attended by such an early and constant syndrome of alteration and disc, visual field, pupil and corneal sensibility as to materially aid in diagnosing this psychosis. Consideration of the syndrome will particularly aid in the differential diagnosis of dementia præcox from the manic-depressive group, acquired neurasthenia, hysteria and the various forms of imbecility and constitutional inferiority.

2. The syndrome is a distinct contribution to the theory that dementia præcox is an autotoxic disease, and that the poison is primarily vascular, which finally induces neuronc degeneration. It points to a toxin of some sort, which is either a metabolic defect in the tissues (ductless gland defect) or, what seems more probable, that the poison is generated in the liver or in the gastrointestinal tract itself.

3. The syndrome is of prognostic value, as the severer grades of eye changes are found in the more rapidly deteriorating cases.

4. Finally, the optic nerve lesion is quite in accord with our best knowledge of the pathologic anatomy of dementia præcox, in other tracts of the brain (than the optic nerve which itself may be counted an analogue). The early vascular changes in the brain ought to receive more serious investigation.

We desire to thank Dr. Mahon and his staff, Dr. Smith of Central Islip and his staff, and the staff of assistants in the neurologic department of the Vanderbilt Clinic (Dr. Starr's service), and Dr. C. E. Atwood in particular, for the courtesies extended to us in placing their patients at our command.

3. At first positive, later examination was negative.

Special Article

THE AMERICAN ASSOCIATION OF MEDICAL MILK COMMISSIONS.

OTTO P. GEIER, M.D.

CINCINNATI.

It was while demonstrating the impure and dangerous milk supply of Cincinnati, before the Academy of Medicine, that Dr. W. H. Crane died suddenly on May 7, 1906. A vigorous, keen, intellectual, broad-minded physician, filled with the love of humanity, passing out in this tragic way, left a deep impression on the medical fraternity of Cincinnati. One month later the formation of a milk commission was proposed and a commission was appointed. Two personal friends of Dr. Crane took their places on this commission, and whatever they may have been able to accomplish in this work along with their associates, is but a reflection of his unselfish devotion to this cause.

In August, 1906, "certified" milk appeared in the Cincinnati market. Some few months later "inspected" milk, then "inspected bulk" for hospitals, and the further history of this commission differs little from that of earlier commissions. The Cincinnati commission placed a clinical and a household milk in the market, educated themselves as well as the physicians of their city on this topic, and used their influence to raise the standard and quality of the general supply.

A few months after the organization of this commission it addressed a series of twenty-five questions, covering every phase of milk commission activity, to the twelve commissions then known. An exhaustive tabulation of these replies formed part of a report to the Cincinnati Academy of Medicine in November, 1906. It showed that there was considerable diversity in supervision, in working methods, in bacteriologic and chemical standards, etc.

An invitation to hold a conference was issued Feb. 25, 1907, by the Cincinnati commission. An enthusiastic response was received from most of the commissions. From that time things moved quickly. A temporary organization was formulated, which mapped out a program and decided that the meeting should be held at Atlantic City, June 3, 1907, one day previous to the meeting of the American Medical Association. One hundred and twenty-five delegates were present. Members of commissions from New York to Oakland, California, elbowed with scientists and hygienists who had been devoting themselves to some particular phase of the pure milk crusade. Twelve commissions reported their methods and results. Dr. Coit, the originator of the medical milk commission idea, traced its early history and development, while other papers were presented on the more general topic.

A permanent organization known as the American Association of Medical Milk Commissions was formed. A president, secretary and treasurer and a council consisting of five members were elected. The executive officers are to be elected each year, while the members of the council were elected for one, two, three, four and five years, respectively, so that one member of the council will be elected at each annual meeting. Committees were appointed on (1) medical examination of employes, (2) chemical standards, (3) bacteriologic standards, (4) veterinary inspections, (5) protection against tuberculosis.

One clause in the constitution of this association gives the keynote of its life: "The purpose of this association shall be to federate and to bring into one compact association the medical milk commissions of the United States; to exchange views and to adopt uniform methods of procedure in the work of medical milk commissions; to fix chemical and bacteriologic standards; to determine the scope of veterinary inspections, and to foster and to encourage the establishment of medical milk commissions in other cities."

The conference agreed that a crusade for pure milk in any section could be best advanced by the establishment of a medical milk commission appointed by the county medical society.

It was likewise determined that the secretary should edit

and have printed for distribution the proceedings of the annual meetings. The next annual meeting is to be held in Chicago, Monday, June 1, 1908, one day previous to the session of the American Medical Association.

At the time of the first conference we had knowledge of twenty-two commissions. The secretary of the association has been in correspondence since June, 1907, with fourteen other cities, which have organized or which are contemplating the formation of medical milk commissions. This has brought with it the writing of several hundred letters along with the distribution of such printed matter as the secretary had at his command, and which would assist in the proper conduction of this work.

Out of this experience has come the realization of the present limitations of this association, as well as its tremendous possibilities under more favorable circumstances. One can not conceive of any organization capable of doing more good than this had it sufficient funds to print and distribute a concise, working manual covering every phase of milk commission activity, as well as to do the heavy clerical work and correspondence that naturally follows the request for information from all quarters.

The American Association of Medical Milk Commissions should be in position to put into the field a representative who would visit one county medical society after another in our larger cities, giving a stereopticon lecture on this subject. The address should be held under the auspices of the county medical society, which would invite representative business men and charitably inclined citizens. The demonstration should cover bacterial and chemical analyses of their own milk supply and that of hospitals and institutions. Pictures of their best and worst dairies should be thrown on the screen. All facts bearing on the urgent necessity for an intelligent and concerted study of the local milk supply by a disinterested, unselfish set of men organized into a medical milk commission would be advanced.

At such meetings funds should be raised with which to begin the work. The literature and the working manual of the association could be distributed and a broad interest created as well as a demand for a clean milk supply.

Once established, each milk commission would become a potent factor in the community, not only in the supervision of a limited supply of clinical milk such as "certified," but its activity and study of the milk problem would stimulate the efforts of the local boards of health and naturally affect and eventually raise the quality of the total supply of those cities. Dr. Goler shows a lowering mortality in children under 5 from 33 to 15 per cent. by such a crusade in Rochester, N. Y. The general mortality of civilized communities has been steadily lowered, while the mortality of infants under 1 year has remained about the same. Gastrointestinal diseases, the largest single factor of infant mortality, are due chiefly to improper feeding and cause an enormous loss of potential wealth to the nation.

Mr. Nathan Strauss has had his name heralded from coast to coast as a benefactor of mankind for the "heated milk" supplied to New York City's poor. Stripped of all over-estimation, his pasteurization merely kills a certain percentage of the bacteria in a dirty milk, possibly leaving the toxins that have already been elaborated by their growth. This method tends likewise to create a false sense of security as to the keeping qualities of milk, while it actually lowers the germicidal power of milk. "Pure milk is better than purified milk."

It is not the purpose of this paper to minimize or depreciate Mr. Strauss' noble charity, but rather to hold in contrast the efforts and the far-reaching results obtainable in medical milk commission work. Mr. Strauss works with a product from an unknown source and of unknown quality. The medical milk commission starts out at the dairy with healthy cattle, free from tuberculosis. It insists on modern sanitary rules throughout the process of milking. It cools the milk, bottles it in a clean state (practically free from bacteria), and retards the increase of bacteria by keeping the milk cold until delivery to the consumer. In other words, the milk commission stands for clean, cold milk secured from

healthy cattle, free from pathogenic bacteria, and prompt delivery. That does not seem like an unreasonable demand, yet few cities comparatively can claim such a product.

Mr. Strauss' philanthropy ends with the delivery, after pasteurization, of a definite amount of milk which a certain amount of money will buy. Any money given toward the furtherance of the milk commission idea, through the American Association of Medical Milk Commissions, will be the means of starting hundreds of centers of philanthropy in as many cities. Such charity would become national in scope and increase a thousandfold.

This is not a tale of an Aladdin's lamp. The history of any well-organized medical milk commission is that of careful study of the local milk problem by the leading physicians of a community. One or more model dairies are soon established. A demand for their product is created by educating the physicians of that community to the value of such a clean supply. The laity begin to demand milk of a better quality and are educated to pay a higher price for the same. The demand for any articles soon creates a supply, and dairymen try to produce the quality of milk for which there is a demand, especially since it is sold at a premium.

Philanthropy usually steps in at this point and supplies this clean, safe milk to the babies of the poor through milk dispensaries. With the publicity that naturally follows, there comes the demand that the local health board improve the general supply and through these many links in the chain the masses are finally reached.

All over this great land men of large means and generous hearts are seeking some avenue of well-doing. If they knew the tremendous possibilities for good that lie in this work; if they could see how far-reaching their philanthropy could be made through the establishment of hundreds of medical milk commissions in as many cities; if they could appreciate how quickly these results would become national in extent and help solve the most serious economic and social problems of all people in all lands; then this association would be embarrassed by the riches that would flow in to do this work. And what better trusteeship for such a fund than the American Association of Medical Milk Commissions, including in its membership the leading physicians and hygienists of the country, who have given their best thought to the solution of this very vital subject of pure milk, and all born of unselfish devotion and a broad humanity?

Clinical Notes

UNEXPECTED AURAL EFFECTS OF SOME COMMON DRUGS.

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AURAL IODISM FROM POTASSIUM IODID.

History.—Dr. G., aged 29, was seen by me June 12, 1904. He had contracted syphilis a year before that date. He had noticed only a papular eruption and was under the influence of mercurials. Six weeks before his visit to me he began to take potassium iodid (gr. x, t.i.d.). After five or six doses, he manifested a slight iodism of the upper respiratory tract. His hearing was normal in the evening of the second day of the administration of the iodid. On rising, the next morning, he found he was deaf on the left side. Besides some hissing tinnitus, he had no other aural symptoms.

Examination.—It was found that the drum head was retracted and that the tuning forks were all heard by bone but not by air conduction. The acoumeter was not heard. He had stopped the iodid of potassium and received hypodermatic injections of salicylate of mercury (gr. i) once a week.

Subsequent History.—Aural tests a month later showed air conduction of the lower three forks of the Hartmann set. Bone conduction equal to bone conduction of the other ear. The acoumeter was heard at 4 inches. On December 4 all forks were heard except C⁴. Bone conduction was greater than air