BULLETIN

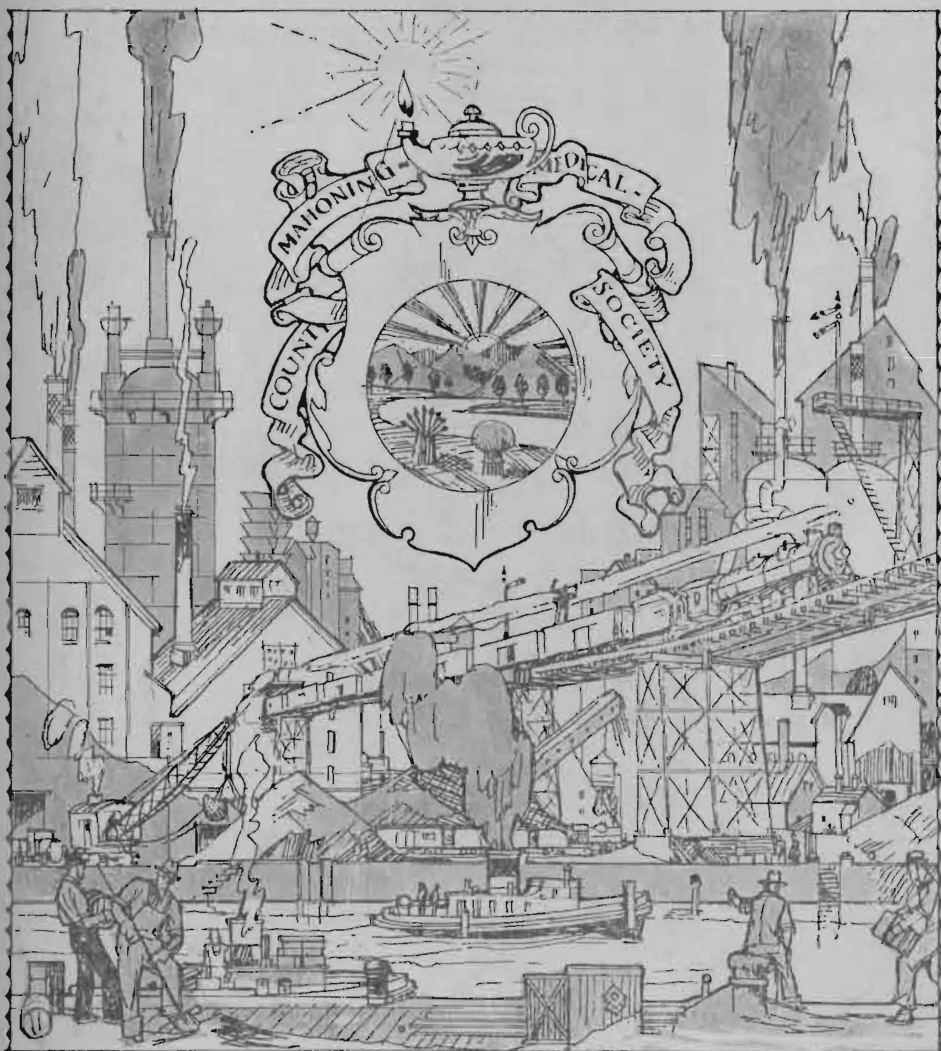
of the

MAHONING COUNTY MEDICAL SOCIETY

OCTOBER, 1932

Volume Two *Number Ten*

"Intelligence loves people. It sees through the outer layers of unrealities, the defense gestures, the mistakes, the fears of people and finds the core of strength and beauty that hides within them. It stretches a strong arm toward the weak and the oppressed. It enlightens the ignorant. It softens defeat, adjusts failure. It sees enjoyment."
—*Angelo Patri.*



Hospital on Wheels

CLEANLINESS

It is a great satisfaction to know that the same sanitary conditions are found in our "HOSPITAL ON WHEELS" as you would expect to find in any hospital and insist on maintaining in your own home.

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Mead Johnson & Co. Pioneers in Vitamin Research **Evansville, Ind., U.S.A.**

The President's Page

Remember

Thursday, October Sixth!

On this date Mahoning County is the host of the Sixth Councilor District for their Fall meeting.

Many of these members do not have the opportunity as we do to attend meetings such as our Society has been able to provide every month, and look forward with great interest to each session. The program is good, the speakers prime, and with a message for all of us. You will miss something if you stay at home.

So then let us turn out strong, and give our visitors a welcome they will remember a long time.

A. E. BRANT.

Secretary's Report

DR. W. M. SKIPP

With the coming of Fall comes increased activity of our Society. Our Program Committee has an active schedule outlined for our entertainment and and education.

Council has met as usual at least once a week with one meeting on September ninth when all standing committees met with Council for discussion of a central office with a paid executive secretary. The meeting was well attended and many worth while views were brought to light on this matter. Do not forget that we need this office, because it is one means by which our Society will forge ahead. This office feels that the Bulletin Committee, all committee chairmen and all officers of the Society should be relieved of some of the detail work of their offices. A paid secretary with a central office will achieve this purpose.

Report of the September Meeting

Scientific meetings were resumed on September twentieth at the Youngstown Club with approximately one hundred present. The guest speaker was Dr. Meredith F. Campbell of New York who presented the subject "Chronic Urinary Infections in Infants and Children." The speaker stressed the fact that the urinary tract pathology met with in children was essentially the same as that found in adults, with the possible exception of neoplasms of the lower portion. Slides were shown demonstrating many different types of obstructive lesions and developmental anomalies. Dr. Campbell stressed the protean symptomatology of urinary tract infection, and the importance of careful routine urine examination in children. He outlined the technique of collecting uncontaminated specimens.

Medical treatment was considered under the headings of improvement in the general nutritional state, elimination of foci of infection and administration of urinary antiseptics of which the speaker favored methenamine (urotropin) rather than some of the newer synthetics. Adequate dosage was recommended on a basis of ten to twelve and one-half grains per year of age per day with a maximum of seventy-five grains per day for a child. A suitable acidifying agent such as acid sodium phosphate or ammonium chloride was administered concomitantly. Dr. Campbell submitted as criteria of cure, not only cessation of symptoms and freedom from pyuria, but also two successive negative cultures.

Pre-cystoscopic routine was given in detail. The majority of children over five years of age were cystoscoped without general anesthesia. Intravenous urography and sodium iodide pyelograms were done routinely, also differential kidney function tests. Surgical treatment of various lesions was described and illustrated with slides. Dr. Campbell's paper was well received and caused much favorable comment.

Medical Gleanings

At the September meeting, Dr. Wm. P. Young of Campbell was voted in as a member of the Society.

Drs. Beard, Haulman and Beers are still unable to attend to their practices. We hope they will be back soon.

Dr. Joseph Tuta is doing post-graduate work in Chicago, his address is Y. M. C. A., 1804 West Congress St.

Dr. G. B. Kramer addressed the Youngstown Medical Arts Club, September twenty-eighth, on "The Reticulo-Endothelial System."

Dr. A. W. Thomas addressed the Ashtabula County Medical Society on "Problems in Pediatrics."

Alumni of Jefferson Medical College will be especially glad to meet their teacher and friend, Dr. Thomas McCrae, next Thursday. An effort is being made to have him here for dinner so that the members of the society may meet him informally before the evening meeting.

The Mahoning County Medical Society
BULLETIN

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EDITORIAL

In a medical meeting, nothing is more discourteous to a speaker than to let a good paper go without a word of discussion. Lack of discussion bespeaks lack of appreciation of the speaker's efforts and reflects upon the intelligence of the audience. A good paper should provoke interested comment which may be congratulatory, may cite similar experiences or similar cases, may disagree with certain viewpoints, or may simply ask questions.

One of the finest features of our local Hospital Staff meetings and medical club meetings is the free and open comment on the subject presented. The points brought out are frequently entertaining and often as enlightening as the formal paper.

The same should be true of the meetings of the general Society. This is the place where our scientific problems should be thrashed out, where we come to learn things which we may not get by simply reading medical journals. Past experience has shown that, generally speaking, our own members are well read, broad in vision and capable of discussing almost any medical subject.

When we leave a meeting with some points of the subject not clear in our minds we are being cheated out of some of the valuable opportunities which such a meeting affords.

Even poor discussion is better than none at all. J. L. F.

MEANDER WORKS IN SERVICE

For the first time in their history, Youngstown and Niles are adequately supplied with pure water, drawn from the Meander Reservoir of the Mahoning Valley Sanitary District and distributed through the great works lately completed as the result of seven years effort. The plant was put in complete operation the first of August and was dedicated early in September with appropriate ceremonies It was constructed under supervision of William H. Dittoe, chief engineer, who formerly for many years, was chief of the Division of Sanitary Engineering in the State Department of Health.

The Meander basin, which includes 5500 acres of land and water, will serve many other useful purposes besides meeting the water supply needs of the Mahoning Valley cities. The reservoir itself, 2000 acres of water area, has been set apart as a fish refuge for propagation purposes only. Certain varieties of game fish are those of most service in water storage reservoirs in keeping down objectionable algae growths, elimination of mosquitoes and destruction of unsuitable species of fish.

E. L. Wickliff, chief of the Bureau of Scientific Research in the Division of Conservation, acting under an agreement by the directors of the sanitary district and Conservation Commissioner W. H. Reinhart, has made one survey of the reservoir, assisted by Milton Trautman, divisional ichthyologist, and will make another in the spring, to determine the governing conditions. Then, objectionable forms of fish life will be seined out, the reservoir will be stocked with species which

(Continued on Page 14)

CRANIO-CEREBRAL INJURIES

Delivered at Staff Meeting, St. Elizabeth's Hospital, January 12, 1932

By RAYMOND E. WHELAN, M. D., F. A. C. S.

The subject of Cranio-cerebral injuries is so vast that it would be utterly impossible to express more than a portion of it in a single paper; therefore, we shall confine this one to treatment. Some of its problems are still in controversy. No one can review the great amount of literature without being convinced: first, that too many skull fractures have been operated in the past, and second, that based on statistics, there is more rational management and far better results. Yet in going over much of the current literature including reports of many hospitals and prominent neuro-surgeons, there is not a complete unanimity of opinion concerning the management of these cases. For instance, in 1930, Adson says: "Conservative treatment is advisable. Lacerated scalps and depressed fractures need surgical attention and a surgeon must elect the most suitable time for such procedure. In shock, any attempted surgical repair is unwarranted. If hemorrhage is in progress, exploration is necessary even though there is no evidence of recovery from shock. In most injuries of the head without depressed fracture, the non-operative, dehydration procedure appears to offer the best results." Loyal Davis says: "Subtemporal decompressions are never indicated in patients in coma from a skull injury. To obtain a decompression effect it is necessary to open the dura mater. Regardless of how gently any cranial operation is done, in which the brain is exposed, edema results. To insert a drain in the cranial cavity opens an avenue of infection to the subarachnoid space which may prove fatal. In complete accord with Rand and others, we have found one sign, however, which is pathognomonic and upon which considerable reliance may be placed. This is a dilatation of the pupil upon the side of the hemorrhage. This is sufficient indication for surgical interference and points rather directly to the side of the lesion."

A. A. Jackson of Florence, Alabama says: "There are several cardinal signs of increased intracranial pressure which call for a decompression operation. Slowing of the pulse rate, retinal edema, and change in the visual field, increase of pressure of cerebro-spinal fluid as shown by the mercurial manometer at lumbar puncture, and increased arterial tension. For the average practitioner a change in the pulse rate is perhaps the most dependable sign. Of course, if there is a depressed fracture of the vault this should be elevated and removed or an accurate co-aptation of fragments established. If the signs of intracranial pressure do not appear, the medical plan of treatment should prevail. The operation of cranial decompression and drainage upon this group of patients forming, in our experience two-thirds of patients injured, is not only not justified but is not indicated." (The inference is that one-third need operation.)

J. D. Wharton of Eldorado, Ark., says: "A large number of our cases are fracture of the skull. We operate upon most of them as we find it necessary to save the patients and give them greater opportunity for complete recovery."

These views from four different widely separated stations, illustrate the need of clearing up the controversies concerning the management of skull fractures.

Dandy is quoted as stating that lumbar puncture has no place in the treatment of skull fractures and yet he has been known to admit that he did lumbar punctures in subarachnoid hemorrhages—that unless blood was in spinal fluid the puncture was not indicated.

Loyal Davis says: "We feel that in the group of skull injuries which are accompanied by large amounts of blood in the subarachnoid spaces, spinal punctures which empty the blood from these spaces do more to quiet the patient than any other procedure."

Cushing has opposed spinal punctures. Yet Bailey, head of the department of neuro surgery at the University of Chicago, for years his assistant, frequently resorts to spinal punctures in skull fractures. Sachs has said definitely that in his opinion spinal punctures have no value and should not be used in skull fractures. Pete of Ann Arbor, Michigan, says that routine lumbar punctures are indicated in skull fractures. Harry Jackson advocated routine lumbar

punctures in his original article. The researches of Bagley show that lumbar drainage is especially indicated in cases in which blood is present in the cerebro-spinal fluid.

These excerpts are indicative of the general trend, and the only statistics offered are that in the decade of 1910 during the vogue of the subtemporal decompression, the mortality was higher than in the preceding ten years; that from 1920 to 1928 when the decompression operations were becoming less the mortality rate became 17% less. And that since the advent of the more conservative treatment, including spinal puncture and dehydration there has been still further improvement.

Nor shall I bore you with the numerous classifications of craniocerebral injuries rampant in the medical literature, except to indicate there are two major divisions viz.—those that should be operated; and those which should not be operated, and the large majority fall into the second division.

The operative ones are:

(1) Middle menigeal hemorrhage.

(2) Simple or compound fractures with cerebral pressure from the bone, or with spicules of bone in the brain.

(3) Possibly other cases of rapid increase of cerebral pressure, not relieved by the general non-operative treatment to be later specified.

Extradural hemorrhage is caused by the fracture crossing and tearing the middle meningeal artery in the temporal region. With the ensuing clot and pressure, smaller branches are torn as the dura is stripped from the bones. It is rather difficult at times to tell when one has such a condition. This point was considered last Friday in the clinic case shown by Doctor Hauser.

The signs pointed out are:

(1) An interval of consciousness, following the recovery from shock, followed by coma.

(2) Gradual hemiplegia affecting the face, arm, leg, in order named.

(3) Convulsions beginning always in the face.

One must remember that all these signs may or may not be present in primary injury of the cerebrum. The surgical indication is checking the hemorrhage, and removal of the clot.

Simple or compound fractures with pressure or fragmentation should be operated. A careful search should be made for fragments entering the brain, to prevent later sequellae. A stereoscopic radiograph is worth much.

Simple depressed fractures need not be considered an emergency.

The non-operative cases are:

(1) Extensive brain injury with laceration.

(2) Cases in which there is a late accumulation of fluid causing intracranial pressure. The first are the cases of extensive brain laceration, that show massive trauma, and are rapidly fatal from medullary paralysis. The second type is the one we more frequently see, and which is amenable to treatment with good prognosis. This is the one with normal blood pressure; normal spinal fluid pressure; pulse and respirations practically normal; eye grounds negative; radiogram negative; or slight linear fracture. Within 24 or 36 hours these will show restlessness, irritability, slight increase in temperature, decrease in pulse rate, and tendency to coma.

It would be well to consider a few practical points to aid us in understanding and treatment of these cases. First, the skull of the adult is a rigid container which is incapable of expansion. Its contents are the brain, meninges, the cerebro-spinal fluid, and the blood vessels. Their total volume is practically constant and any increase in the volume of one can only occur at the expense of the volume of the others. If for instance, the brain become enlarged by the growth of a tumor there must be a corresponding decrease in the volume of the blood or the cerebro-spinal fluid. Such adjustment can only occur to a very limited extent without an increase in the intracranial pressure. This applies in like manner to an injury of the brain which shows swelling in the tissues the same as an injury elsewhere, from hemorrhage and edema. Until fairly recently it was thought best to perform a decompressive operation. However, newer methods are being utilized and it is essential that one should have some

knowledge of the anatomy and physiology of the cerebro-spinal region to understand it. A brief summary is as follows: The cerebro-spinal fluid is probably secreted in the ventricles by the choroid plexus. The lateral ventricle normally contains about 30 cc. The fluid finds its way from the lateral ventricle through the foramen of Monroe to the third ventricle, thence along the aqueduct of Sylvius to the fourth ventricle. In the roof of the fourth ventricle, is the foramen of Magendie, and in each lateral recess the foramen of Luschka through which the fluid escapes to the large cisterns beneath the arachnoid. The cisterns contain normally about 60 cc. of fluid, but in pathologic states they contain two or three times this amount. Another 30 to 60 cc. is present in the spinal portion. The cerebral and spinal subarachnoid systems communicate freely with each other. This allows artificial drainage of the cerebral-subarachnoid water bed by the spinal route.

Our problem involves, according to Fay and others of similar teachings, the appropriate management of cerebro-spinal fluid, cerebral edema, and consequent intracranial pressure, as well as treatment directed toward the hemorrhage by either direct or indirect method. Fay states that where combined focal signs of subdural or epidural hemorrhage are associated with bloody spinal fluids and cerebral confusion, in his experience it has been better to delay an exploration until after intracranial pressure and cerebral edema have been adequately controlled. The removal of the clot can be undertaken at anytime the patient's symptoms indicate the necessity of the measure, toward relief of edema and intracranial pressure. That it is often better to attack the focal hemorrhages after the fifth day, if possible, as the operator will not be confronted with the horrifying experience of opening the dura to release a subdural hemorrhage, only to have the intensely swollen brain expand itself and extrude masses of brain tissue above the level of the wound, making the proper closure impossible and leaving a permanent cerebral hernia.

Methods to be employed upon admission of patient.

Every effort should be directed toward the immediate treatment of shock and the subsequent intracranial pressure which will ensue.

I Period of Shock:

The evidence of shock has been estimated in the following clinical determination.

(a) Subnormal temperature
(b) Cold clammy extremities
(c) Low diastolic pressure, especially below 60
(d) Pulse usually above 120
(e) Increase in respiratory rate
(f) At times a rising pulse pressure

II Period of Emergency Treatment:

(a) Warm dry clothing
(b) Heat applied to body surfaces
(c) Atropine sulphate gr. 1/100 (adult dose)
(d) Pituitrin (surgical 15 min. by hypo)
(e) Ergot and ephedrin if necessary

The purpose of the above is to prevent further loss of fluid from the skin surface so blood volume may be maintained. The stimulants are directed toward vasoconstriction of the peripheral circulation, thus improving diastolic pressure, and correcting the vasomotor dilatation associated with shock.

1. Immediate intravenous administration of about 50 cc. of 50% glucose. Occasionally it has been necessary to add 50 to 150 cc. of saline solution along with the glucose where shock is severe, and it is evident that insufficient tissue fluid may be reclaimed by the glucose to overcome the loss of blood volume. As blood volume loss is not only due to direct hemorrhage but to loss of the plasma fluids into the tissue spaces, and out over the skin surfaces, it is most important to re-establish this factor as soon as possible. Usually glucose alone has been adequate and may be repeated in four hours if necessary. Large quantities of saline solution intravenously have been entirely abandoned because although this promptly combats the period of shock, it also precipitates cerebral edema and intracranial pressure, the patient surviving the shock just sufficiently to succumb to respiratory failure from cerebral edema. It is far better to

repeat small amounts of saline in doses of 50 to 100 cc. where shock persists, than to give an initial large quantity which will require active measures for its redrawal within the next four to eight hours. A minimum amount of fluid by mouth should be given during the period of shock.

2. Control of the bleeding points of the scalp and inspection to determine the presence of fracture should be considered next, followed by cleansing of the wound with antiseptics and simple dressings to meet the immediate requirements. No attempt is made to suture the wound and no immediate operative measures undertaken until the period of shock has entirely disappeared. Immediate X-ray is not to be considered, unless a compound fracture is evident by initial inspection, or depression, sufficient to be recognized immediately and of severe enough proportion to warrant this.

3. During this interval, temperature, pulse, respiration, and blood pressure should be taken every half hour. If bleeding from the ear or cerebrospinal leak is present, the ear is carefully cleansed and tampon soaked in dichloramine-T or 2% mercurochrome inserted in the external auditory canal, lightly.

4. Spinal puncture is performed as soon as period of shock has passed. This requires careful pressure reading by manometer. Only where respiratory signs indicate a cerebral compression is a lumbar puncture permitted as an immediate measure. An opportunity to examine the patient neurologically is afforded after the shock has been controlled. The subsequent program of treatment depends upon the character and pressure of the spinal fluid. If the fluid is clear, measures directed entirely toward the subsequent control of the intracranial pressure are indicated, with observations of the neurologic signs, to determine the possible presence of subdural or epidural hemorrhage. If spinal fluid is found to be bloody, the fluid is drained from the canal for the purpose of not only reducing intracranial pressure and preventing immediate subsequent pressure but also with the hope of removing as much blood as possible. If the spinal fluid is bloody this is strong evidence that subsequent operative exploration is not warranted. Blood in the spinal fluid produces obstruction to the outlet of cerebro-spinal fluid and thus for a period of ten days at least spinal fluid must be withdrawn from time to time. When blood is present in the spinal fluid laceration of the brain tends toward edema and the necessity for dehydration throughout the ensuing days is imperative.

III. Consideration during the first twenty-four hours after admission.—With the first period of shock over, attention is directed toward maintaining blood pressure and the control of intracranial pressure as well as the subsequent surgical dressings. Sedatives are indicated to prevent restlessness and thus prevent further bleeding and pressure from the patient's violent efforts. Morphine should be avoided unless other measures fail, as morphine and its derivatives depress the respiratory center. Sodium luminal .125 hypo; and chloral hydrate 1.0 with sodium bromide 2.0 is given by mouth and repeated q. 4 hrs. p. r. n. When the patient is restless though unconscious double dose of chloral and bromide may be given by rectum in 120 cc. of hot water. The proper routine orders are then initiatied:

1. Elevation of the head of the bed
2. T P & R every half hour
3. B P every hour
4. Pulse pressure charted separately with pulse every hour
5. Icebag to head
6. Complete blood count
7. Urinalysis
8. Blood sugar

The diet should be a solid one. Fluid intake and output are carefully measured and charted and the total fluids allowed are as follows:

(a) If spinal fluid is clear, subsequent spinal drainage is not necessary. Total fluids are therefore restricted to 20 oz. per 24 hrs.

(b) If spinal fluid is bloody and repeated spinal drainage is made fluids are limited to 30 oz. It has been found that if patient's fluid is limited to 20 oz. spinal drainages show practically no fluid can be obtained after the second day.

Should the pulse persist over 120 either 50 cc. of glucose may be repeated in 4 hrs. or a small amount of saline given intravenously. This need not be deducted from the total fluid allowed by mouth or rectum. If the pulse pressure shows a tendency to rise or approach the pulse rate, the indications for further relief of intracranial pressure are thus established, and another spinal puncture and drainage are necessary or a magnesium sulphate enema may be given to further increase dehydration. The proportion used: Magnesium Sulphate 90, Glycerine 30, Water 180. This hypertonic enema draws fluid rapidly from the lower bowel even though quickly expelled and is sufficient to cause some dehydration. It may be repeated p. r. n. Should the patient be conscious enough to swallow magnesium sulphate, 45.0 in 180 cc. water are given by mouth. The glucose tends to draw fluid from the tissue spaces and the subarachnoid system, in the direction of the blood stream. This fluid will again re-enter the tissues in three to four hours if not removed from the body, hence the use of magnesium sulphate to eliminate entirely.

One contra indication to the use of magnesium sulphate is apparent. If blood volume is already depleted through shock, hemorrhage or dehydration, it is not wise to deplete the necessary circulatory system by the use of magnesium sulphate. It is a general rule never to administer magnesium sulphate during the period of shock. The first 24 hrs. following the injury must be devoted to balancing the fluids of the body, controlling intracranial hemorrhage, and maintaining adequate blood circulation. In order that oxygen be properly delivered to the tissue cells throughout the body, it is necessary to maintain a diastolic pressure at 60 mm. Hg. at all times. This can be accomplished by the use of Pituitrin, Ephedrin, and Ergot. Caffeine and Adrenalin are only used as measures of last resort or to tide over a failing circulation until readjustment is possible.

Careful neurologic examination should be made to determine the condition of the reflexes, the signs of focal hemorrhage, cerebritis or trauma, and special reference should be made to the size of the pupils. Dilatation of the pupil usually indicates the side on which the extravasation of blood is greater. The deep tendon reflexes are usually lost during the period following trauma, but promptly reappear, and should be noted from day to day. Kernig, Babinsky and Oppenheim reflexes are of great importance. The differentiation between stupor and aphasia must be established early in the examination. Supra-orbital pressure will produce a drawing up of the face on the side of the pressure. If the stupor is profound no reaction is obtained. In patients who are aphasic and semi-stuporous the examiner may determine by this reaction whether or not there is weakness in the motor supplies to the lower third of the face, when the patient is not able to respond or co-operate. If the patient is aphasic, even though paralysis of half the body is present (usually the right) the patient will make a definite effort to remove the stimulus, and to give evidence of knowing where the pain is being produced and how it should be removed. If the patient is stupid, however, purposeless efforts and struggling are present in an effort to get away from the painful stimulus but no co-ordinate movement is made to locate the source of pain production. Patients have frequently been thought to be unconscious when they could neither understand nor reply, and a sign of aphasia is of great importance as it indicates a lesion in the Sylvanian area on the left side in a right handed person.

Focal lesions can be adequately dealt with on the fifth to fourteenth day if the general condition remains satisfactory.

Frequently focal traumatic cerebritis simulates subdural hemorrhage in such a way that it is difficult to determine whether or not a clot is present. Temple Fay states it is his policy to wait the fourteenth day to the twenty-first day for signs of clearing where intracranial pressure is controlled, and the patient's condition satisfactory. Frequently the operator will expose an area apparently focal enough to suspect a hemorrhage only to find no signs of a gross clot but an intensely red currant jelly appearance of the cortex with congestion and edema. Such an exploration may be avoided if careful study of the neurologic signs indicate continued improvement in symptoms and focal signs.

Annual Meeting Sit

October 6, 1932

AFTERNOON SESSION

AT THE ELKS' CLUB

1 P. M.

1. Malignancy of the Thyroid..
   ....Armin Elsaesser, M. D., Youngstown, Ohio

2. X-ray Symposium—1 hour.

   X-ray Diagnosis of Gall Bladder Disease
   Dr. John Heberding, Youngstown, Ohio

   X-ray Findings in Low Back Conditions
   Dr. E. C. Baker, Youngstown, Ohio

   Causes of Increased Density in the Upper Third of the Lung
   Dr. O. D. Hudnut, Youngstown, Ohio

   Discussion by Drs. M. H. Bachman and S. J. Tamarkin,
   Youngstown, Ohio

h District of Ohio

AFTERNOON SESSION (Continued)

3. Modern Concepts in the Management of Certain Types of Heart Disease............Dr. Roy W. Scott, Professor of Medicine, Western Reserve University, Cleveland, Ohio

SIXTH DISTRICT DINNER

Youngstown Club

6:30 P. M.

EVENING SESSION

8:15 P. M.

METHODS IN DIAGNOSIS

Dr. Thomas McCrae, Professor of Medicine,

Jefferson Medical College, Philadelphia, Penna.

The Medical Society

of the

State of Pennsylvania

Will Hold Its 82nd Annual Session

October 3--6, 1932

At The William Penn Hotel, Pittsburgh, Pa.

General Opening Meeting, October 4, 10:00 A. M.

Public Meeting, October 5, 7:45 P. M.

President's Reception, October 5, 9:30 P. M.

Members of the Mahoning County Medical Society and Ohio State Medical Association are cordially invited to attend.

CONTEMPORARY REVIEW

FREE-HANDEDNESS SPELLS RUIN

Through its program of veteran's relief the government has made such extensive inroads on the practice of medicine as to threaten the very existence of the medical profession—to say nothing of the imminent bankruptcy of the entire nation through the free-handedness with which the taxpayers' money is being expended on war veterans.—*Bulletin of the Wayne County Medical Society (Detroit).*

The Annual Diphtheria Prevention Campaign is now under way and the Medical Society, through its members, will exert every possible effort to immunize all children who come under the care of private practitioners.

Toxoid will be available (gratis) this year as in previous years to all physicians in private practice. Supplies may be obtained through the stations of the Health Department.—*Milwaukee Medical Times.*

Recent investigations on the control of diphtheria have directed attention increasingly to the pivotal importance of the active immunizatition of children under five years of age as an essential adjunct to that of the older age groups. With the emphasis thus largely transferred from the school to the home, the burden of responsibility has been shifted in no small degree to the private physician.—*New York State Health News.*

One thing is certain. The present haphazard system of specialization cannot continue indefinitely. If the profession does not take the initiative in its correction, the government will. Why wait for state control?—*The New York Medical Week.*

We are very much in sympathy with the effort on the part of the Medical Society of the State of New York to teach the public the need for adequate maternity care through the distribution of circulars which outline the fundamentals of maternity hygiene and advise medical care from the time the woman believes she is pregnant until the physician says she is able to resume her regular activities and care for her baby. How much better this is than trying to revive Sheppard-Townerism, which was largely a failure and which cost an enormous amount of the taxpayers' money.—*Journal of the Indiana State Medical Association.*

DELLHURST SANITARIUM

MENTOR, OHIO

Robert E. Gardner, M. D., Medical Director

Telephone Mentor 498

A private sanitarium equipped for the scientific treatment of mental and nervous diseases. Situated at Mentor in Lake County, Ohio, on main Cleveland-Buffalo Highway, 20 miles east of Cleveland and 65 miles from Youngstown. 50 Acres of lawn, shrubbery, trees and flowers.

MEANDER WORKS IN SERVICE

(Continued From Page 4)

will serve the needs of the water service. After they have had sufficient time to multiply, the excess will be distributed to streams in the vicinity where they will add materially to the recreational facilities of the territory by improvement of fishing conditions.

This is a co-operative arrangement which could be studied with profit by other waterworks managements in Ohio. There are many waterworks reservoirs in the State which might be similarly utilized, to the advantage of the municipalities served, the interests of conservation and the recreational opportunities of the neighboring people. In commending it to the responsible officials it is suggested that waterworks managements make their contacts with the Division of Conservation through the State Department of Health, so that there may be virtual standardization of practice and substantial uniformity of results.

Mr. Trautman also made a survey of the territory with respect to bird life, and counted 18 species of water or shore birds on the reservoir, many of which had never been seen in the territory except as birds of passage. Negotiations are under way with the U. S. Bureau of Biological Survey as the result of which there already is virtual agreement that the entire area will pass under the bureau's jurisdiction as a wildlife sanctuary.

Of the 3500 acres of land area, 1700 are fairly well forested with deciduous trees. Three hundred of the remaining 1800 acres have been forested to conifers, mostly pines, and the rest will be similarly planted at the rate of 300 acres a year, which can be done at a cost of not more than $10 an acre. Conifers are preferred for waterworks areas, as their leaves fall straight to the ground, instead of being blown into the water, and form a mat over the soil, thus retarding the flow of surplus rainfall, holding moisture in the ground and preventing erosion. Leaves of deciduous trees cause objectionable color, taste and odor in the water, all of which are hard to eliminate and add materially to the cost of water treatment.

Complete forestation of the area will add materially to its value as a wildlife sanctuary.

The entire tract is surrounded by a continuous fence of heavy chain-link fabric, five feet high, and topped with three strands of heavy barbed wire on both sides of the post heads. The fence, which is 32 miles long and probably is the longest continuous fence in the State, is tied into highways and bridges at all intersections, in such a way that access to the tract is all but impossible. This is intended to prevent incidental pollution of soil and water by trespassers, and as the tract is not open for fishing, picnics or other recreational purposes, it is evident that everything possible has been done to safeguard the health interests of those who are to be served with pure water from the Meander works.—*From the Ohio Health News.*

Contemporary Review

With a multiplicity of ice cream, soft drink and sandwich vendors crowding street corners and lining the highways in unprecedented numbers a new double danger to motorists and other patrons has developed. Any one of these vendors who happens to be a typhoid fever carrier may spread the disease far and wide among his customers. On the other hand, the careless parking car, even though briefly temporary, near these vendors adds an important hazard to traffic. All unhygienic food and drink dispensers whether in the open or behind the soda counter are a positive and active menace to health especially at this time of year. The chief danger is not in the drink or food but in the personal habits of the one who sells it for immediate consumption. —*Bulletin of the Chicago Medical Society.*

It is no secret that, except for the charity hospitals of this country and those conducted by various governmental agencies, the hospitals of the country are suffering because of the lack of occupancy of many beds. . . Some private hospitals are less than half occupied! A general average would indicate 40 per cent empty beds in most private institutions. Since such institutions are largely dependent on endowment and donations as well as on fees coming from patients, their situation is today a serious one! —*The Journal of the American Medical Association.*

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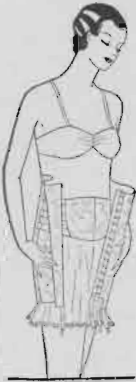

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Continuing experiments with raw milk in building good teeth made by E. Sprawson, Director of Dental Studies at the London Hospital Dental School.

"It might be thought that a high degree of calcification of the enamel, such as is said to be produced by vitamin D, would protect against dental caries, but Mr. Sprawson finds that this is not so. In Malay 49 per cent of Chinese coolies, who work stripped to the waist exposed to the powerful sun, have caries. Similar observations have been made in South Africa. Mr. Sprawson therefore concluded that such a balance of vitamin content as in raw milk, in conjunction with the calcium (which may be in a particularly suitable form) might be the cause of the diminution of children returning. (See reference in September Bulletin).

"A high percentage of the incidence of caries occurs in those deciduous and permanent teeth the enamel of which is actively laid down, and in some cases fully calcified, during the first four or five years of life, so that a supply of suitable calcium salts and vitamin balance efficiency should be available at that period. Moreover, the incidence of caries is generally progressively less in the teeth, deciduous and permanent, in the order of their eruption, and it is during the earliest portion of this period that 'hand feeding' and a faulty diet are most common. This led to an inquiry concerning the effect of a daily ration of raw milk begun during the first twelve months of life.

"That age was selected because few children are now breast fed. Moreover, it is a period previous to the eruption of the deciduous molars in which the incidence of caries is high, and also a period when the first permanent molars are forming, in which the incidence of caries is highest. In children who began to take raw milk at later ages a protective influence on the teeth subsequently erupted was found. Historically, those peoples showing the smallest incidences of caries are found to be those primitive races who nursed their children for the longest period; i. e., fed them on raw milk.

(Concluded in Next Issue)

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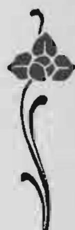

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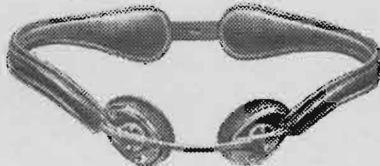

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S. Q. LAYPIUS OBSERVES

Mahatma Gandhi is said to be starting in on a plan of starvation. From the last picture I saw of that gentleman, he had started some time ago.

This new tennis champion Vines, certainly was poison ivy for those foreign aspirants.

Pink tooth-brush may be terrible, but I am concerned about gray hair-brush.

It seems that the success of the City charter movement depends upon City Clerk Lemon. In other words, the charter is in need of Lemon aid.

Now that these foreign medical luminaries have cured constipation with the use of yeast, we wish they'd tell us something good for eczema.

One of our local members, upon being consulted in the case of a child who had inadvertently swallowed a coin, advised that unless the coin were counterfeit, it would pass all right. Ready wit, I calls it.

Another one of the fold suggests to me that a minister, in order to properly tie the wedding knot, must know his ropes.

The pathetic thing about this depression is the number of persons who have absolutely wasted their time when they could have been reading and getting ready for the times that are to come. So many people still think that "Dickens" is an exclamation.

And undertakers are never required to work until someone lays down on the job.