Some Thoughts on Broadening Medical Education

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TO-DAY'S world is an uneasy one in more ways than one and one of its outstanding phenomena is a widespread questioning and critical attitude. Not many things, not even those once thought to be so steeped in venerable tradition as to be matters of abiding faith, are immune and invulnerable and left untouched. One could theorize freely as to the why and wherefore of this but that would not be useful nor at this time relevant.

The medical profession has by no means been left untouched. It comes in for its share of criticism and even abuse and few of us would be willing to say that it now stands where it once stood. Here again one could look about for reasons and the search would not go unrewarded. Some grave shortcomings are plain enough but since I last year mentioned such of these as impressed me, I shall not now repeat them. Depressed in some degree as I may be and as I am sure many of you are, I have no hankering to earn for myself a designation of hot gospeller, preaching Hell and Damnation for the erring. It may be, not so much that the world is dark, but that our eyes are dim.

In the field of Medical Education this is certainly open season for bombarding the curriculum with everything from small bird shot to heavy bombs. There always have been sporadic critical articles appearing in current medical literature but in the past two or three years there has been a spate of articles, reports and books all trying to tell us what is wrong. Most but not all of this comes within professional circles. Doctors of philosophy engaged in various programmes of social security, and politicians anxious to convince their constituents of the possibilities of a new heaven and a new earth if only their ideas are carried out, are not particularly modest in their outpourings. There may be some threat to curricular balance in the urgings of banded together specialists in the medical field itself. Many very earnest workers in medical schools have become bold enough to put their thoughts, both hopeful and doubtful, in print.

I think you will agree with me that the very evident existence of this widespread critical attitude should neither be objected to nor belittled. Criticism is a sign of dynamic life. He who feels that he and his works should be immune is already dead but has not discovered it yet. His real usefulness is at an end.

We can agree then that this flurry of soul searching and fault finding is in many ways a good thing. The disquieting thing about it, and I am sure all of you must have felt as I have, is that so much of the comment is ineffectual or bound to be so. We eagerly grasp the latest outpouring, thinking that here at last we may have something that will throw a beam of light into the uncertainty that we ourselves recognize. But so often our hopes fade

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as we progress through page after page of high sounding comment but all vague and producing in the end irritated disappointment and sense of frustration. This can only mean one thing—the existence of a sense of something amiss but either no clear idea of what it is, uncertainty as to what should be done about it or timidity about coming out with ideas that no matter how relevant or cogent, may hurt feelings or aspirations.

It is safe to say that vested interests, if we may so speak of them, exist in the councils of all medical schools. These regard their own particular preoccupation very highly and jealously resist anything that looks like encroachment. I suppose men who are reasonably satisfied with their work come to regard it as one of the most important, if not the most important of the world's types of endeavour. If change is suggested these authorities are likely to look for more time for their subject and if this is necessary, less time for others. In this kind of scramble small wonder that curricula bulge in one or more places and exhibit hollows or depressions in others.

We may well ask ourselves: "Should there be changes?" And if so, where should they be made and what direction should the change take? If we look at the curriculum laid out in the customary tabulated form we see that it represents a truly immense undertaking for one thing and it obviously is heavily weighted with frankly scientific and technological material. There will be many who will speak up and somewhat truculently ask, "So what? Do we not have to bring the students into awareness of all that is valuable in 2,000 years of accumulated medical knowledge and with the staggering pace of scientific development. Must we not put forward the details of these advances in order that the graduate may make practical use of them and not have a lesson read to him by some zealous devotee of the *Reader's Digest* or any one of dozens of magazines that now feature medical advances." The answer to this would appear to be, "Yes, but let's be a little more vigorous in the winnowing of knowledge accumulated in the past,—considerably more interested in principles of diagnosis and treatment, less interested in spoon feeding of the last paltry details that any really alert graduate can cull from a medical literature that certainly cannot be called scanty," and finally, "Can we not do something to prepare men for the life that they must live?" Can we not do something to broaden their human experience and outlook so that the dead weight of their work may not crush nor stultify them or leave them resourceless when life's routine palls?

Look at our product. Young men and women who in so far as technical proficiency goes have had no equal in the history of medical education. Have they with all this held the place of Medicine secure and unchallenged? There are grave doubts about this. Even if we make allowances for a general increase in knowledge this still does not satisfy me that the Profession stands where, in public regard, it once did.

Then look at individuals. One can readily call to mind men who in some branch of Medicine are giants but can they think clearly and broadly? Can they convey their thoughts in spoken or written language in their mother tongue without deficiency or offence? When they foregather socially, what do they do—generally they talk shop even though their auditors may be predominantly lay people. And what do they do when work slackens or a holiday is taken? There are mighty hunters among us and fishermen too, of great prowess both in fishing and reporting. No one would seek to dis-

credit these activities; the difficulty is that being seasonal their usefulness is limited. Something about the same can be said of a number of other perfectly enjoyable pursuits for leisure time.

The growing success of the physicians' art exhibit at the C.M.A. meetings is evidence that many and an increasing number of medical men seek release in Art and in all likelihood more would if they had had some early inoculation with its possibilities.

A fair number of doctors have sizeable libraries of non-medical character and here they know diversion and peace are waiting. I am pretty well convinced that literary taste and its attendant satisfaction take root early or not at all. Many a medical student having managed to keep his joy in good literature alive while he has labored through his preparatory years, sees it pretty nearly die of inanition when he becomes immersed in the medical course. For eighteen years I have asked incoming students about their interests outside of work and I have been encouraged to find how many have had real satisfaction from one or other form of art, literature and music, but I have been discouraged to find out five years later when they were about to leave the school, how many had abandoned these interests because, as they said, of lack of time. Some will no doubt regain them; others lose them forever.

I have just mentioned music as one form of release, pleasure and inspiration. Nowadays if one does not himself play some instrument and thereby have the means of directly expressing his moods and longings, the means of reproducing music of high quality and fidelity are readily attainable. And in all Medical Faculties there are some whose interest and pleasure have led them to accumulate records in very considerable number.

While much that I have said and may say will be classed by some as the vague unsatisfactory grumbling that I myself have already complained of, I should like to refer briefly to an experiment in music in the Medical School that we have tried over the past two years.

Some nine or ten of the Faculty known to be interested in music were gathered together and the proposal of a weekly musical hour for students was discussed. It was looked upon with favor and each of the group with complete freedom of choice was assigned the task of preparing and arranging a programme strictly limited to one hour. The students were notified of the project and all interested were invited to attend. Attendance was entirely voluntary. They were informed that they could smoke, ash trays being provided, and might even bring their lunch provided noisy and pungent foods were avoided.

Interest was surprisingly high and reasonably maintained although the number attending varied. The announcement of the forthcoming programme and the prior distribution of brief explanatory notes was helpful. Some of the physicians in charge went to great trouble in preparing the programmes and notes, others made comment during the programme, others said nothing, leaving the auditors to their own meditations.

The original proposal to end the series in March was met by a request that they be continued another month. There were in the first year 143 items presented, representing 56 composers extending from Purcell to the moderns. The special predilections of those in charge were fairly evident although no one programme consisted entirely of the works of one composer. The favorites, judging from the number of items presented, were Beethoven

and Mozart. The 45 minute Requiem Mass of Mozart was listened to intently; Shostakovich's Waltz elicited evidences of definitely diminished interest.

This was a concrete experiment and in its result, one would like to feel it was worthwhile. Experience in the second year seemed to indicate that it was.

Other suggestions that I am about to offer have not had the benefit of trial but they seem t me to have possibilities, provided the entirely voluntary principle is adhered to.

Some, as I have already said, in spite of the generally destructive efforts of some teachers, reach late adolescent years with an abiding delight in literature. I shall not forget the amazement of a senior officer in the late war as he recounted his experience of hearing a young medical officer in the midst of anything but comfortable conditions quote line after line of *Paradise Lost.* The taste and longing are there probably in greater degree than we think but in our frantic insistence on the last detail of scientific and technical knowledge it has a hard job surviving. Perhaps we could help it and encourage it by some means. We could provide mimeographed copies of excerpts of worthwhile prose or poetry, have them accessible for those who desire them, keep a loose leaf collection in the Library and from time to time have someone talk informally of his own literary interests. It is likely that those with a highly polished pedagogical training would snort derisively at such a procedure but for those students who have a longing ungratified and largely strangled by other things, I believe such a project might be welcome.

As for Art, the planning of exhibits supplied by individuals or from nearby art galleries would seem to have possibilities. Here again the material should be supplied and the matter of interest and attendance left strictly to individual students.

One other thing that from the strictly utilitarian practical standpoint is possibly of more importance than Music, Literature or Art, is some introduction to the social responsibility that rests upon all professional men, no matter what the direction and content of their strictly professional training.

Frankly I think we should be worried that while our graduates are better medical technicians than their predecessors, they on the whole are not really enlightened and interested citizens and by this I am not expressing disappointment that they do not enter the political life in larger number. In general the doctor who becomes politician ceases to be a good doctor in proportion to the degree of his immersion in the quagmire of politics. That the general level of politics is what it is, is no doubt the fault of the unthinking, easily impressed, unguided citizenry.

In April, 1948, the Carnegie Corporation sponsored an Inter-professions Conference on Education for Professional Responsibility and to it were invited representative leaders in Education in the fields of Divinity, Medicine, Business, Law and Engineering. The proceedings were published under the title of *Education for Professional Responsibility* and this is a book I can commend to your attention and thought. You may not agree with every thing that was said but you I am sure will be surprised and inspired by the breadth of view and the serious sense of responsibility of those who participated. Time does not permit my doing more than setting up a direction post, as it were. You will possibly read the book. The nubin of the matter is set forth in this quotation from the introduction:

> Our democracy and the perils that endanger it are far different from those of the past. The problems which it must solve and the knowledge available for solving

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Contact Lenses*. .

A General Review and Presentation of Two Patients, A High Hyperope and a Keratoconus Successfully Treated

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1. Definition

As the name implies, contact lenses are so called because they make contact with the eye. Originally made of glass, they are now made of plastic.

2. History

The original idea of covering the cornea with a protective shell, from which contact lenses subsequently developed, originated well over one hundred years ago.

In 1827, Sir John F. Herschell, the well known English astronomer, mathematician and physicist, suggested the use of such a device to protect the cornea from a diseased lid. He later suggested the use of saucer-shaped enses filled with a transparent gelatinous substance and placed in contact with the cornea to correct regular and irregular astigmatism.

There is no evidence that these experiments were ever completed because of the difficulty in making a cast of the sensitive cornea without a local anaesthetic. It was not until forty years later that cocaine was used.

Miemann and Sossen, working in Wohlere's laboratory in Gottengen, Germany, were the first to isolate cocaine. The first records of its anaesthetic properties were published by Scherzer and closely followed by Miemann in 1860.

Von Anrep in 1878, published the first detailed report of its definite local anaesthetic properties on the eye and other tissues. It remained for Karl Koller, however, to introduce it permanently into surgery through his paper addressed to the Ophthalmologic Congress held in Heidelberg in 1884.

The original suggestions of Herschell lay dormant for sixty years.

In 1887, Dr. Saemisch had a patient blind in his left eye and threatened with blindness in his right eye because of keratitis lagophthalmo due to a cancerous destruction of the lids. F. E. Muller, a glass blower of Wiesbaden, Germany, made a thin glass shell which was fitted to the patient's left eye and he wore it for twenty years, retaining vision until his death in 1907.

Contact lenses, as refractive devices, came into being as a result of experiments by Dr. A. E. Fick in 1887-88. He was a physician in Zurich, Switzerland and was the first to use the term, "contact lens". (Kontackbrille) He took casts of rabbits' eyes with plaster paris and had glass lenses blown over these molds. He used various solutions for the liquid lens.

He then made molds of cadaver eyes. From these he had contact lenses blown for his own eyes. He reported wearing these without too much discomfort for two hours.

Dr. Fick then conceived the idea of using contact lenses with a liquid lens of the same refractive media as the cornea to correct the irregular astigmatism of keratoconus.

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He asked Carl Zeiss to grind a contact lens with a corneal curvature of 8 mm. radius and a scleral band of 12 mm. radius. However these lenses did not prove satisfactory.

He inquired into the causes of clouding of the fluid lens and the possibility of contact lenses replacing spectacle lenses to correct aphakia, myopia, high hyperopia and the irregular astigmatism of keratoconus and other conditions.

August Muller was a medical student in Kiel, Germany. He had a contact lens made which corrected his -14.00 D. myopia within 0.5 D. He used cocaine at first but soon discontinued the practice, most likely due to softening, oedema and exfoliation of the corneal epithelium caused by its use. He could only wear the lenses for one-half hour and he became discouraged.

A number of other men experimented with contact lenses but the lack of a proper design made all contact lenses so far produced, unbearable and the idea was abandoned for a number of years.

Modern Contact Lenses

The valuable work of the pioneers demonstrated without a doubt that the optical principle concerned was sound even though this design was faulty.

The end of the first decade of the twentieth century saw the beginning of renewed desire to make contact lenses practical.

It must be realized that until 1932, all of the literature refers to either one of two types of lenses, namely the ground contact lens made principally by Carl Zeiss and the blown contact lens manufactured by Muller of Wiesbaden.

Many new names appear in the literature on this subject.

Since custom made lenses could not be made at that time, it was not unusual to use thirty to fifty trial contact lenses at a fitting and such a procedure was necessarily very arduous, not only for the doctor but especially for the patient.

Muller's scleral portion was opaque with blood vessels painted on, while only the corneal portion was transparent. All these lenses were afocal, no power being incorporated into the corneal portion.

The first radical departure in the form of contact lenses was made by J. Dallos of Budapest. Dallos realized that neither the cornea nor the sclera was spherical in form. He determined this by preparing models from casts made from living eyes. In 1932 he found a preparation, Poller's Negacoll, which was first made in 1928, and which was suitable for making negative casts of the eye. Positive casts were made using a hard waxlike preparation.

Dallos reported his work in a German publication in 1932 but it was not until 1936 that it appeared in the Archives of Ophthalmology.

In 1936, Carl Zeiss announced that they were prepared to make glass contact lenses from individual casts. Lenses obtained from Carl Zeiss in the United States did not prove too satisfactory and were returned numerous times for adjustments.

In 1937 W. Feinbloom, an optometrist of New York, developed a contact lens of two separate parts—a ground glass corneal portion and a plastic

scleral band. This was the first use of plastic in the construction of a contact lens. Feinbloom interested Bausch and Lomb of New York in his new lens and many thousands of dollars were spent in perfecting it.

The all plastic molded contact lens was first introduced in the fall of 1938. The material used exclusively for contact lenses is basically methylmethacrylate. The best known trade names are Plexiglas and Lucite. Plastic lenses have light transmission as good or better than glass, perfect transparency, freedom from coloring by exposure to sunlight, chemical inertness, hardness of surface, resistance to breakage and should not burn easier than would glass. The plastic lens is 60 per cent lighter and scratches more easily than glass.

Theodore E. Obrig, of New York City, became interested in contact lenses in 1930 and a major portion of the successful development of plastic contact lenses, may be attributed to him. In the fall of 1938 he was successful in making plastic contact lenses from casts. The Obrig Laboratories Inc. was established in January, 1940.

The actual fabrication of an all plastic contact lens consists of some sixty or more distinct consecutive operations expertly planned and coordinated. Most procedures are held to an accuracy of 1/100 of a millimeter.

Its overall shape roughly corresponds to the horizontal cross section of a hen's egg well rounded nasally and tapered to a rounded point temporally. Its average size is 22 by 24 mm. with an average corneal radius of curvature of 7.8 to 8.0 mm. and scleral radial curvature of 12.50 mm.

Power is ground into the corneal portion and prismatic and cylindric power, while rarely necessary, may be incorporated. The lenses may also be tinted.

3. Indications

1. Errors of refraction—myopia, hyperopia, astigmatism (regular and irregular), aphakia, etc.
2. Diseases of the lids—as protection to the eyeball—trichiasis, entropion, ectropion, lagophthalmos.
3. Diseases of the conjunctiva—vernal conjunctivitis, pemphigus, xerophthalmia, etc.
4. Diseases of the cornea—keratoconus (its main indication) corneal ulcers, keratitis sicca, etc.
5. Diseases of the iris—for cosmetic reasons—aniridia, coloboma.
6. Albinism—to cosmetically correct the translucent iris and to protect against photophobia.
7. Protection in industry against harmful gases and liquids.
8. Vocational uses—actors and actresses, sports, such as hockey and boxing.
9. Cosmetic reasons—to obviate the wearing of very thick lenses in spectacles particularly in young marriageable girls, albinism, coloboma of iris and aniridia already mentioned.

4. Optical Procedure

The optical procedure consists of refracting the patient while the patient is wearing a pair of trial contact lenses. When the power of the auxiliary

lens is five diopters or over, the determination of the vertex distance is necessary. The vertex distance is the measurement from the corneal portion of the contact lens to the posterior aspect of the auxiliary lens.

A buffer isotonic solution, which is basically 1-2½ per cent sodium bicarbonate with or without saline and of the same PH as the tears, is used as the water lens. The corneal cup of the contact lens is filled with this solution and the lens is inserted in the eye. The fluid lens artificially neutralizes the cornea as a refracting media and moves the refracting surface to the inner surface of the contact lens.

The average radius of corneal curvature is 8 mm. If a contact lens is placed in front of the eye with a 7.5 mm. curvature, then the eye is made myopic. For example; if a patient, having a corneal curvature of 8 mm. and wearing a -3.00 sphere spectacle lens, has a contact lens inserted with a 7.5 mm. curvature, an auxiliary lens of -6.00 sphere would be necessary to give the same vision. As a general rule for every ½ mm. change in the corneal curvature, add about three diopters.

Conversely in a hyperopic eye, deduct three diopters.

As a rule in selecting a trial contact lens, which is usually afocal, use the following guide:

Extreme keratoconus 6.5 mm.
Slight keratoconus and aphakia 7.0 mm.
Myopia and hyperopia 7.5 mm.
High myopia 7.5 with -15.00 diopters ground in.

It is rarely that a cylinder or prism has to be used in the auxiliary lens. If a cylinder is found necessary, the astigmatism is lenticular and not corneal.

The manufacturer requires the following optical information:

1. Corneal radius of the trial contact lens.
2. Power of the auxiliary lens.
3. Vertex distance.

The horizontal intercanthal measurement is also required.

5. Inserting and Removing Lenses

There are two methods of insertion—lower and upper lid insertions. I prefer the lower lid insertion. One may use a suction cup or just the fingers. I prefer the latter.

There are two methods of removal, using suction cup and using the finger nail of the thumb. I prefer the latter.

6. Molding Procedure

Having obtained the optical information, the molding procedure is next. It consists in taking a mold of the eye (negative impression) and then making a positive cast from this.

Materials used—molding shells, moldite powder, rubber bowls, two graduates, spatula, muscle hook and castite.

The shells are marked red and green, red usually used on the right eye. A horizontal line always points to the inner canthus. The shell has perforations and a hollow handle to permit the escape of the excess moldite. The eye is anaesthetized with ½ per cent pontocaine and a drop of 1:1000 adrenaline is instilled.

Select the proper sized shell.

Eight c.c. of moldite is measured and placed in a rubber bowl. Six c.c. of distilled water is added. Spatulate to a smooth cream for one and one-half minutes. Pour into shell. Instill 2-3 gtts. mineral oil into conjunctival sac. Insert shell in the patient's eye being sure to have the horizontal line on the shell pointing to the internal canthus. Have the patient fix a finger held a little to the temporal side of the fixing eye. Caution the patient not to blink. He must fix for two minutes. This is the most trying part for the patient in the whole procedure. To remove, have patient look upwards and with a muscle hook to depress the lower conjunctival fornix, breaking the suction, remove the lower edge. Now have the patient look down to deliver the upper edge. Now fill the negative mold with a fixing solution prepared by adding a tablet which comes with the moldite powder, to 100 c.c. of water. Allow to stand.

In this manner obtain the negative mold of the other eye.

Now to the making of the positive mold or cast.

To 18 c.c. of castite in a rubber bowl, add 6 c.c. of distilled water, spatulate for two to three minutes. Remove fixing solution from the negative mold and pour into the mold the liquid castite.

Allow to harden for twenty minutes and then mark with a horizontal line to correspond with intercanthal line. Above the line mark T to indicate temporal side, N to indicate nasal side and L or R in the middle to indicate which eye. Below the line indicate name of the patient. Allow to set for one hour altogether and then remove positive mold or cast from the negative mold. These casts should have a well defined corneal portion. The scleral and corneal sections should be free of holes larger than 3 mm. diameter, irregularities not present on patient's eye, and ridges not higher than ½ mm.

The cast should have sufficient scleral portion to produce a lens of the required size. If the first cast is unsatisfactory, they must be repeated until satisfactory ones are obtained.

The casts together with the optical information are sent to the manufacturer and semi finished lenses are received, within ten days.

7. Semi Finished Lenses and Their Fitting

The difference between a semi-finished and a finished lens is that the former is thicker to allow for any necessary adjustments. In many instances semi-finished lenses are delivered to the patient as finished lenses when no change in prescription is desired and the lenses are comfortable.

The scleral-corneal junction of the contact lens is called the transition zone.

In fitting the lenses one must consider:

1. Lid pressure.
2. Gravity drop.
3. Convergence of the eyes.

The first two items have a tendency to force the lens downwards. The inward convergence must also be considered.

An ideally fitting lens is one that rests evenly on the sclera without obstructing blood vessels flow.

The corneal section should sufficiently clear the cornea to avoid touching it in all ocular fields of gaze. Tight scleral areas are noted by blanching where the blood vessels are obstructed.

To determine a corneal touch, place two drops of 1 per cent solution of fluorescin in the buffer solution in the contact lens. Use an ultra violet light. Wherever the cornea touches the lens, a dark area will be seen. If no touches are present, then the fluorescin glows with a brilliant green reflex.

The following cardinal steps are observed in fitting:

1. Check for overall size.
2. Rotation of lens.
3. Tight areas.
4. Loose areas.
5. Corneal touches.

1. *Overall Size*—Draw a horizontal line using a red china pencil, from temporal to nasal side of the lens.

Have the patient insert the lens.

The right lens is indicated by one red dot near the lower edge while the left is indicated by two red dots near the lower edge.

If the lower edge cannot be seen on upward gaze or the upper edge cannot be seen on downward gaze, then the lens is too large. If the edge strikes the caruncle on looking nasally, or the outer fornix on looking temporally, it is too large. Make the necessary markings with the red pencil to indicate the defective edge.

2. *Rotation of Lens*—If the horizontal line does not correspond to the inter canthal line, there is rotation. This is usually due to two tight areas opposite each other.

3. *Tight Areas*—Indicated by blanching to sclera. Mark areas with short straight lines from the cornea outwards.

4. *Loose Areas*—To detect these areas use two drops of fluorescin in the buffer solution. Wherever there are loose areas, the fluorescin will pool into the scleral portion. Mark as for tight areas and circle the area.

5. *Corneal Touches*—Detect as previously mentioned and mark.

Bubbles in the solution are frequent and provoking problems. Usually due to defective technique in inserting lenses. Sometimes due to a loose channel connecting from the periphery of lens to the corneal portion. To detect place a drop of fluorescin on upper edge of lens when the eye is looking down. If a loose channel exists, then fluorescin will penetrate under the lens to the corneal portion.

The edge may be too thick and irritating to the lid. Mark all defects and return lenses to the manufacturer for correction.

This may have to be done several times until the patient can wear the lenses with comfort.

The patient is instructed in the insertion and removal of the lenses during a number of sessions. Usually the patient becomes adept at this within one to two weeks.

The lenses are not released to the patient until he becomes proficient in this procedure and is psychologically prepared to wear them. He is given

a booklet of instructions and advised to memorize the contents. He is advised to insure the lenses against loss or breakage.

He is given a prescription for an aqueous solution of 1:2500 metaphen and instructed to instill one drop in each eye before and after use of lenses.

He is instructed as to the preparation of the buffer solution and advised to make a fresh solution each week. Solution is to be kept in a dark bottle.

He is instructed about cleanliness of the hands and lenses before inserting. He is advised to boil the bottle and attached dropper before making fresh solution.

The patient is advised to wear lenses for one hour at a time for the first week and two hours at a time for the second week. After that they may wear lenses as long as they can commensurate with comfort and clouding of the liquid lens.

The average length of time that these lenses may be worn is four to six hours. They cannot be worn longer mainly because the solution begins to cloud.

8. The Solution and Its Problems

As previously stated, this forms the liquid lens and it neutralizes all corneal astigmatism and any other refractive errors caused by irregularity of the cornea.

The liquid lens is an important part of the refractive system and separates the cornea from the lens. No matter how ideal the lens is, if the solution clouds prematurely, then the whole purpose is defeated.

Volumes could be written about the experimental and research work concerning the liquid lens. No universal solution has been developed which will permit the wearing of the lenses all day.

Basically the solution has the P.H. of tears and consists of 1-2½ per cent sodium bicarbonate with or without saline.

It is isotonic. If the solution should be hypo or hypertonic, then osmosis would occur between the corneal fluid and the solution, causing swelling and clouding of the cornea.

The chief complaints due to wearing of contact lenses are:

1. Redness or congestion of the conjunctiva.
2. Burning or stinging.
3. Clouding and rainbows.

1. Redness or congestion may be caused by foreign matter in the buffer solution, a too high osmotic pressure, rough or misfitting lens edges or wearing lenses beyond the tolerance time.

2. Burning and stinging may be due to failure in washing hands, particularly in smokers. If lenses are not properly washed and dried after using. then salt deposits will remain on the lenses resulting in these symptoms May be due to a high concentration or an incorrect P.H.

3. Clouding and rainbows may be due to improper fitting lenses. Mucous and sebaceous secretions depositing on the exterior of the lens may be the cause. May be due to swelling of the cornea because of osmosis.

It may be necessary to experiment with varying concentrations and P.H. to obtain a proper solution for an individual case.

All my patients have had good success using a "B" capsule which is basically a 2 per cent sodium bicarbonate capsule. They sterilize a two ounce dark colored bottle with dropper. They then dissolve the capsule in two ounces of ordinary distilled water. The bottle is shaken well and allowed to stand twenty-four hours. It is then filtered and is ready for use.

BIBILOGRAPHY

1. Contact Lenses.—Obrig.
2. A Scientific Method of Fitting Contact Lenses—Salvatori.

Case Histories

1. Keratoconus, Bilateral

White female, 33.

This patient stated that she has had gradually decreasing vision in the right eye for the last eight years, and the left eye for the last three to four years. She claims that she had been near sighted as long as she can remember.

Prior to eight years ago, she could do her housework and read fairly well with the proper correction (glasses). The vision in her left eye has decreased more rapidly in the last six months.

In 1944, paracentesis of the right eye was performed by a local specialist to relieve pressure.

However her vision became so poor that it finally could not be corrected with spectacles. She, therefore, was unable to perform her household duties adequately and to properly care for her family. She became discouraged and depressed.

The patient consulted me for the first time May 14, 1948, complaining of very poor vision, both eyes, especially the right eye.

Ocular examination as follows: May 14, 1948.

Right Eye: Manifest Vision 20/400 (very blurred).

Cannot be improved with ordinary lenses. Patient cannot read or discern one's features.

External Examination: On profile was noted a marked curvature of the cornea (keratoconus). On the apex of the cornea was a fairly dense opacity covering a fair portion of the pupil. Remaining cornea was fairly clear.

Media: Clear.

Fundus: Could not be made out with any clarity due to marked refractive distortion and corneal opacity.

Tension: Within normal limits.

Retinoscopic Examination: Very dull fundus reflex obtained. Central distinct shadow and a peripheral dull shadow separated from each other by a shady ring. Central shadow moved against the motion of the mirror and the peripheral shadow with the motion of the mirror.

Left Eye: Manifest Vision 10/400 (moderately blurred).

Cannot be improved with ordinary lenses. Patient cannot read or discern one's features.

External Examination: On profile examination a moderately curved cornea, slightly less marked than the right eye, was noted. (keratoconus).

The corneal apex is surmounted with an opacity of pinhead size. The rest of the cornea is fairly clear.

Media: Clear.

Fundus: Viewed indistinctly. No details could be made out for the same reason explained in examination of the right eye.

Tension: Within normal limits.

Retinoscopic Examination: Same findings as in right eye.

Diagnosis: Keratoconus, markedly advanced right eye; moderately advanced left eye.

Refraction with trial contact lenses.

Right Eye: Large trial contact lens 6.5 mm. curvature combined with -13.00 sphere = 20/200. Vertex distance 26 mm.

Left Eye: Large trial contact lens 7.0 mm. curvature combined with -7.00 sphere = 20/60-2. Vertex distance 29 mm.

Fairly distinct vision obtained. Patient able to distinguish features, read and tell time on her watch.

June 4, 1948. Ocular impressions and positive casts obtained.

June 18, 1948. Semi-finished contact lenses received and patient fitted.

Right Eye: 20/200.

Left Eye: 20/60-2.

Again fairly distinct vision obtained.

Note—Lenses were returned once for some minor adjustments. Before lenses were released to patient, she was taught to properly insert and remove lenses on several occasions. She finally was able to wear the lenses as long as six to eight hours with no discomfort and only had to remove the lenses in order to change the solution, which became cloudy.

Psychologically the patient was a new woman. She was no longer depressed and took a new lease on life.

2. High Hyperopia

White male, age 30.

This patient has complained of poor vision as long as he can remember. He had worn thick glasses for about ten years but did not wear any for the last ten years because they were too "thick" and he didn't like their looks. He received glasses in the army but wore them only for reading.

He states that in the type of work he is doing, the accident hazard is great with spectacles and that he cannot wear a protective mask.

This patient first consulted me on April 17, 1948.

Ocular Examination: April 17, 1948.

Right Eye: Manifest Vision 20/200 with personal glasses 20/50.

Homatropine mydriasis 20/400 corrected vision $+6.00$ sphere $\bar{c}$ $+1.00$ cylinder $\times 180 = 20/30\text{-}1$.

Pinhole vision 20/70-1.

External examination, media, fundus and tension—normal.

Left Eye: Manifest Vision 20/100-1 with personal glasses 20/25.

Homatropine mydiasis 10/400 corrected vision $+6.00$ sphere $\bar{c}$ $+1.00$ cylinder $\times 180 = 20/25\text{-}2$.

Pinhole vision 20/50-2.

External examination, media, fundus and tension—normal.

May 21, 1948: Refraction with trial contact lenses.

Right Eye: 7.5 mm. curvature, medium size trial contact lens combined with +3.50 sphere = 20/30. Vertex distance 24 mm.

Left Eye: Same contact lens combined with +3.50 sphere = 20/25-2. Vertex distance 24 mm.

May 28, 1948: Ocular impressions taken and positive casts obtained.

June 18, 1948: First fitting of semi-finished. Lenses fit quite well and no adjustments are anticipated.

Corrected vision with contact lenses: Right Eye 20/40-2
Left Eye 20/25-1

Note—Lenses released to patient after several visits during which time he was taught to insert and remove lenses properly.

He has worn them ever since with comfort and no adjustments to lenses have been necessary. He wears them at work regularly. Average wearing time is four hours and they only then have to be removed to change the solution because of clouding.

He has been quite pleased with the optical efficiency of the lenses and especially pleased with the cosmetic improvement.

C. M. A. Annual Meeting—Halifax
June 16th to 23rd, 1950

OUR BUSINESS AND OUR PLEASURE

A LITTLE more than a month from now, the guests that some three years ago we invited to Nova Scotia—the Canadian Medical Association—will be arriving. They come primarily for serious business. Foremost among their activities we think of the scientific programme. Much thought and effort have been given to that to make its quality as high and its variety as great as possible. But the business side of these meetings also has grown greatly in importance with the years, and now demands more time than does the scientific programme. In point of importance these two aspects of the meeting are not comparable, but to any thoughtful person, it must be apparent that the business side of the meeting has, by force of circumstances, been brought to assume an importance and significance which a few years ago could not have been imagined, and which touches, and will continue to touch more closely, the lives of every man who practices medicine among us.

This business is done through what may be called the parliament of the Association—the Council and the Executive—the representatives to which, we elect. Those representatives will work very hard during their meetings here as any one knows who, as a representative of the past, has faithfully served his office.

All our visitors whether on Executive, Council, or general membership are equally our guests, and we shall welcome them heartily to our province again. Nova Scotia doctors have long ago established a reputation for our kind of welcome. We shall not exhibit the heartiness of greeting and the great show of friendliness that we met at Saskatoon last year—though a bit more of it wouldn't hurt us; we do not wear our hearts on our sleeves; but believing them to be equally in the right place, we shall find other means by which to discover them to our visitors.

Our committee of arrangements, and in particular those persons charged with directing the larger events of hospitality, have developed plans by which it is hoped our welcome will be properly expressed. *They ask however, that every member in Nova Scotia back them up in this as was suggested by Doctor Colwell, in his recent letter.*

Housing remains, as always, a difficult problem. The Committee however, is heartened by letters from our members waiving claim in favour of our visitors, to the first-class accommodation which under different circumstances they would enjoy, and telling of their making of their own arrangements with Halifax friends. It is to be understood however, that no member of our Society should absent himself because he has not been able to make such an "outside" arrangement. The Committee will welcome requests for accommodation from *any* member, and is sure that everyone can be placed in comfortable quarters. Many Halifax doctors who have a spare room are offering bed and breakfast for the meeting. It would be wise if all those who have made outside arrangements would so inform the housing committee, and they

are requested to do so. Others should send the usual application to Dr. C. M. Jones, Hon. Secretary, Halifax Infirmary, stating times of arrival and departure, and number in party.

It is a great pleasure to record that New Brunswick has extended the hand of fellowship and will "do" one of the events of welcome to Council. There is every reason why the Maritimes should draw together in closer fellowship. It is good to see New Brunswick taking this lead. Let us hope that it will be the beginning of many such acts of co-operation among the four Maritime Provinces.

E. F. Ross

President, Medical Society of Nova Scotia

N. H. Gosse

General Chairman, Committee of Arrangements

A MESSAGE TO THE DOCTOR'S WIVES

IN Halifax a committee of doctors' wives, headed by the wife of the President-elect, has been working all winter, making plans for the entertainment of the ladies who will be our guests. This committee has been working on behalf of all the doctors' wives in the Province of Nova Scotia, and we hope everyone will feel that when once the meeting begins it is the Nova Scotians who are the hosts and not just those of us in Halifax. With this end in view it has been arranged that on registration the name badges issued to the women of Nova Scotia will bear white ribbons, with no lettering on the ribbon. All those from outside of Nova Scotia will have simple pins carrying only their name. This will make it easy to recognize the visitors from other parts of Canada, and to see to it that they are given the warmest possible welcome. The local committee will wear badges bearing the words Ladies' Committee, and will be only too glad to assist in every possible way.

The provisional entertainment programme was published in the April number of the *Canadian Medical Association Journal*. With one exception it stands as published. The exception is the Beach and Lobster party which will not take place in just that form, although lobsters will be in evidence at other functions. Instead of the beach party there will be a Garden Party in the Halifax Public Gardens, which will be closed to the public for the afternoon of Thursday, June 22nd. On this occasion our hosts will be the Premier and the Nova Scotia Government. So bring the garden party frocks instead of the beach costumes, and pack your husbands white flannels.

We expect an unusually large number of ladies at this meeting, and in order to have preparations adequate to the numbers it is of vital importance that we have some idea of how many to expect. Since it seems probable that most Nova Scotians will be finding shelter for themselves with relatives or friends, we would ask that a line be written in advance stating that you are coming and where you will be. Address this to Doctor C. M. Jones, the Honorary Secretary. The next step is to register at the Ladies' Registration Desk in the writing-room on the ground floor of the Nova Scotian Hotel just

as soon as you can after arrival. There you will receive the printed programme and can obtain tickets for the various events.

Speaking of tickets do plan to attend the opera presentation on Thursday night. No other entertainment is planned for that evening because it is felt that all will wish to hear and see "The Tales of Hoffman" performed by the newly formed Nova Scotia Opera Association. A brief synopsis of the opera is printed elsewhere in this BULLETIN.

Advance notices indicate that a goodly number of doctors and their wives will be accompanied by young people. While no set programme has been arranged, a committee stands in readiness to see that these guests are suitably diverted. Certain of the main events will be open to the boys and girls. On behalf of those with very young children we have spoken to the Halifax City Sitters' Club who will endeavour to supply sitters as long as the supply lasts. Their phone number is 3-5442.

On Sunday morning, June 18th, at eleven o'clock at St. Paul's Church the Annual Church Service of the Federation of Medical Women of Canada will be held. This service is open to all who wish to attend and the lessons will be read by men prominent in the life of the Canadian Medical Association. Any who are in town will find this an interesting occasion.

It seems likely that many of our Nova Scotian doctors living near at hand will come in to town daily for the meetings. To the wives of those doctors we especially recommend the Wednesday luncheon at the Lord Nelson Hotel, open to all doctors' wives here for the meeting. If there is only one day you can get in, make it Wednesday. The day's programme includes the luncheon, tea on board H.M.C.S. *Magnificent* and the Annual Meeting and Dance at night.

Above everything else we hope that all will feel at home and enjoy themselves. The best way to accomplish this is make a point of being friendly to all we meet and to let no trivial dissatisfaction spoil the days for ourselves and others.

M. E. B. G.

NOTICE

The President and members of The Medical Society of Nova Scotia will be hosts at a dinner to the members of General Council of the Canadian Medical Association and their wives on the evening of June 20th at 7.30 p.m., at the Nova Scotian Hotel, Halifax, N. S. Music and entertainment will be provided throughout the dinner. Tickets will be $3.50 per plate. As it is necessary for us to know approximately how many to prepare for those who plan to attend are requested to notify the Secretary to that effect. Dress will be formal.

THE TALES OF HOFFMAN BY JACQUES OFFENBACH

A brief outline of the history and story of the opera may serve to stimulate interest. The Tales of Hoffmann is "grand opera", but this simply means that all the lines are sung and that none are spoken in the ordinary voice. It is a lyric opera, in contrast to all the other operatic works of Offenbach, which were in the form of opera bouffe, and closely resembled farce. The name of "Tales of Hoffman " derives from the source of the story, which was simply a fanciful tale written by the 18th century poet, novelist and composer, Ernst Theodor Amadeus Hoffman. The name of the principal character in the opera is also Hoffman but there seems to be no eivdence to show that the tales had anything to do with events in the life of their author. Offenbach finished the opera before he died but did not live to hear it performed.

The opera consists of a prologue, three acts and an epilogue and is unusual in that the leading soprano appears in four different roles ,as the four mistresses of Hoffman, and the leading baritone in three, as Hoffman's enemies. In the prologue the stage is set for the ensuing narrative as Hoffman, stimulated by the latest incident in his unhappy search for his ideal woman, begins to tell his companions the story of his love life. The next three acts re-enact, in the throw-back sytle so familiar to movie-goers, his experiences with the three women, Olympia, Guilietta and Antonia. The three stories differ in detail but a common theme runs through all. In each episode Hoffman feels he has found his ideal but each time the beloved image dissolves. Olympia proves to be only a dancing doll, though believed by Hoffman to be a real woman, and she is smashed by her inventor, whereupon Hoffman realizes he has been deceived. Guilietta after inciting Hoffman to fight and kill another of her lovers, is then found in the arms of still another. Antonia is neither a puppet nor unfaithful. She is possessed of a beautifil voice which in her delicate health she is forbidden to use. But at the behest, not of Hoffman but of the fiendish Dr. Miracle she sings and so dies. Thus he loses his third ideal. In each of these adventures there lurks in the background the sinister "other man" who brings about the loss or destruction of the beautiful image.

In the epilogue Hoffman, after relating his strange adventures, falls into a melancholy reverie, to which the wine he has drunk contributes in no small measure. Brooding thus he is discovered by his fourth innamorata, who scorning him as a drunkard, leaves him for another. Hoffman is left alone with his dreams and his bottle.

Perhaps in this day and age this may seem to be a drab and sordid tale, but it is in the best romantic tradition of the late 18th and early 19th centuries.

The opera is full of lovely music. Best known of the airs is the famous Barcarolle. It is sung in the second act as a duet by Guilietta and Hoffman's servant, the latter role sung by a woman in male attire. The theme is heard again at the end of the act as the malign influence of Guilietta upon Hoffman begins to appear.

The prologue and epilogue are laid in an inn at Nuremburg. The adventures as related in the three acts take place in Italy, the second act being in Venice. The original language of the Libertto was French. The June performances in Halifax, will be in English.

Since there is no continued or involved narrative or plot the story is easy to follow. The music is light and pretty and altogether a "night at the opera" should be first class entertainment.

PLAN TO ATTEND THE OPERA AT HALIFAX

The Nova Scotia Opera Association will present the Grand Opera "*Tales of Hoffman*" at the Capitol Theatre June 21st.

Arrangements have been made by the Local Entertainment Committee of the C.M.A. to hold a large block of seats for the members and their wives.

Reservations will be taken by mail up to June 10th. Thereafter some seats will be available at Halifax, but in order to be assured of seats, send in the Order Form below.

Ticket prices are:

Loge - - - - - - - - - - -	$5.00 and $4.00
Ground Floor - - - - - - - - -	$3.50, $2.50 and $2.00
Balcony - - - - - - - - - -	$1.50 and $1.00

Fill in the application below and indicate whether enclosing money or or will pay on arrival at Halifax. Instructions will be given at C.M.A. Headquarters where tickets may be picked up.

Name..... City .....

Please hold( ) seats at ($) each for the Opera "*Tales of Hoffman.*"

I enclose) (in cash or money order.

I will pay for tickets on arrival in Halifax.

Please send above Ticket Order to:

The Nova Scotia Opera Association

Box 642

Halifax, Nova Scotia

Correspondence

135 St. Clair Ave. W.
Toronto 5, Ontario
April 14, 1950

TO SECRETARIES OF DIVISIONS

Dear Doctor Grant:

Re D.V.A. Hospitalization for Veterans

Herewith enclosed you will please find the following:

(1) An extract from the Minutes of the last meeting of the Executive Committee.

(2) A copy of a letter received from Dr. W. P. Warner.

(3) A copy of a letter sent to our Key Men following receipt of Dr. Warner's letter.

Yours sincerely

T. C. Routley

General Secretary

(Extract from Minutes of Meeting of the Executive Committee of the C.M.A. held in Ottawa on March 27 and 28, 1950.)

D.V.A. Re Hospitalization of Veterans

The Executive Committee noted that on Monday, March 13th, the Minister of Veterans Affairs tabled in the House of Commons Order-in-Council P.C. 1266, dated March 10, 1950, permitting the D.V.A. to provide hospitalization and treatment for Veterans who are ineligible under existing regulations. The Minister described the new class as "those who are covered as to hospital costs by private or Provincial Government insurance plans; or who, though not insured, have the means to pay for the treatment for which they may apply at D.V.A. Hospitals."

Dr. W. P. Warner addressed the Committee and stated that a per diem hospitalization rate of $8.65 had been set, which does not include medical care, the cost of which will be an additional charge on the Veteran. Dr. Warner was not in a position to give the Committee any further details about how the Doctors would be paid.

After prolonged discussion, the following plan was suggested and met with the unanimous approval of the Committee:

That this Committee recommend that the medical staff of each D. V. A. hospital in Canada be requested to name three representatives to act with three representatives of the appropriate local medical group as a committee to study the working of the new arrangement by which

non-entitled veterans are permitted to enter D.V.A. Hospitals as paying patients. Each Committee shall name a seventh man to act as Chairman. These Committees shall report to the appropriate member of the Executive Committee from time to time and at the June meeting of this Executive Committee.

The President and General Secretary were instructed to get in touch with Dr. Warner and request his concurrence in this proposal; it being understood that, whether Dr. Warner concurs or not, the appointment of our representatives should be undertaken.

The following Key Men were named to be responsible for organizing the committees in their respective areas:

British Columbia ..... Dr. F. M. Bryant
Alberta ..... Dr. Harold Orr
Saskatchewan ..... Dr. J. F. C. Anderson
Manitoba ..... Dr. R. W. Richardson
Ontario ..... Dr. W. V. Johnston and Dr. J. E. Carson
Quebec ..... Dr. Walter Scriver
New Brunswick ..... Dr. D. A. Thompson
Nova Scotia ..... Dr. Norman H. Gosse

Great emphasis was placed upon the advisability of the Hospital Committees being set up as soon as possible.

Note: The President, the General Secretary and the Assistant Secretary presented the resolution to Dr. Warner on March 28th. He did not say yes, and he did not say no, but agreed to give us an answer within a week.

Here follows a copy of the letter addressed by Dr. Warner to the C.M.A. on April 6, 1950, and a copy of a letter sent from this office to the Key Men upon receipt of Dr. Warner's letter:

Department of Veterans' Affairs

Ottawa, April 6, 1950

Dr. T. C. Routley
General Secretary
Canadian Medical Association
135 St. Clair Ave. W.
Toronto, Ontario

Dear Doctor Routley:

Reference the meeting in my office on March 28th, at which Drs. Anderson, Kelly, Routley, Kinsman and Warner were present, regarding the resolution passed by the Canadian Medical Association Executive in respect to the treatment of non-entitled veterans in D.V.A. hospitals, I appreciate very much the offer of the Canadian Medical Association to appoint representatives to study the workings of this new scheme along with representatives of this Department.

I concur that it is highly desirable that the Canadian Medical Association be kept informed regarding the workings of this Plan. With this end in view, I will be glad to send you, as Secretary of the Canadian Medical Association, all pertinent information regarding the Plan.

You have suggested that local committees be set up for each hospital. There does not appear to be any advantage in such local committees. This Department would welcome representatives from your local organizations, where our hospitals are situated, being appointed representatives to obtain information regarding the Plan locally.

If you would be good enough to let me know what representatives in each area where we have a Departmental hospital that you propose to name, I will inform the Chairman of the Medical Advisory Board of each hospital of the name of the representative or representatives to whom all available information regarding the workings of the Plan will be given.

Yours very truly

(Signed) W. P. Warner

Director General of Treatment Services

THE VICTORIA GENERAL HOSPITAL

Halifax, Nova Scotia

March 1, 1950

Postgraduate Course in Surgery designed to Assist Those Who Desire To Write Certification or Fellowship Examinations In General Surgery For The Royal College of Surgeons of Canada

A Post-graduate Course in Surgery will be given by the Victoria General Hospital, Halifax, designed to assist those who desire to write Certification examinations for The Royal College of Surgeons of Canada. Those qualified to write examinations for Fellowship in The Royal College of Surgeons of Canada are also invited to take this course.

The correspondence part of the course will begin in May, and continue through to August, 1950. The didactic lectures will be given from 18 September, 1950, to 14 October, 1950.

The course will include lectures in Biochemistry, Physiology, Anatomy, Pathology, and General Surgery.

The fee for the course is one hundred dollars.

Applications for the course, stating qualifications, should be addressed to the Chairman, Post-Graduate Course Committee, The Victoria General Hospital, Halifax, N. S.

Letter to the Editor

DR. BABKIN AND OUR MEDICAL SCHOOL

The Editor
The BULLETIN

May 8, 1950

The attached clipping headed: "Dr. Boris Pabkin" is an editorial from the *Montreal Star* following the account in the previous issue of Doctor Babkin's passing.

I would ask you to publish it in the BULLETIN for three reasons:

(1) Many of the students, friends and admirers of Professor Babkin's Halifax days who read the Bulletin would like to read it;

(2) In the hope that those whose business it was to retain him in Halifax and failed to do so might don the sack-cloth and ashes which in the circumstances would be appropriate, and resolve to mend their ways.

(3) Because it is reported that a similar blunder is being perpetrated in the Medical School today in allowing another irreplacable research man to leave Dalhousie. It is understood that this man like Doctor Babkin in his Halifax day, would be happy to remain in Nova Scotia but, again as in the case of Doctor Babkin, no-one seems to have the foresight to evaluate and to retain him.

Shall we ever learn? There's a saying "Experience teaches fools." Does it?

Doctor Babkin made a lovely contribution to Nova Scotia's Medical life. Those of us who were associated with him know what an inspiration he was. His passing at this time might well be another contribution to us if it wakens us out of our sleep. Dead he yet speaks.

Dalhousian

P.S.—Item 3 is being widely discussed and disturbing questions are asked as to the wisdom of the policy followed, or if there is a policy. Among the many, my name would mean just another person and would be valuable only arithmetically. I give it to show good faith, but would ask that you hold it to yourself. The case stands on its merits.

DR. BORIS BABKIN

Dr. Babkin was a quiet, unassuming man. To many people the announcement of his death will be the first intimation of the very great place he held in the field of experimental medicine. It was a very great place indeed; his contirbution to reasearch in physiology and neurology was immeasurable.

He was in a sense a legacy fo Canada of the Russian revolution. It is doubtful whether the Bolsheviks knew of his eminence as a medical scientiest when they ousted him from the country or they would not have ejected a talent that comtributed so much to the improvement of mankind. Russia's loss was our gain. From the monent of his arrival in Canada in 1922 Dr. Babkin took a place among the leaders in his profession.

Dr. Babkin had the inestimable advantage of working with Professor I. Pavlov for eleven years and participated in the classical experiments on conditioned reflexes which have made Pavlov's the best known name in this field. He brought this experience with him to Canada and applied it to original research covering a wide field of physiology. Only recently he published a book about Pavlov, at once a tribute to and appraisal of that scientific genius.

*Montreal Star—May 4th, '50.

Obituary

DR. B. P. BABKIN

Many of our readers have been grieved to hear of the death, on May 3rd, of Dr. Boris Petrovitch Babkin at the age of 73 years, while returning to Montreal from a meeting of the American Gastroenterological Society at Atlantic City.

Dr. Babkin took his medical training in St. Petersburg and entered the field of physiology. At the age of 45 years, having been professor of physiology in Odessa for seven years, he was forced to leave Russia, because of the revolution. During his flight he lost a daughter and all his belongings were confiscated. He never returned to Russia but, despite his losses and a persistent bitterness against the Bolshevists he kept alive his primary interest in physiology. Working in Starling's laboratory he obtained his D.Sc. from London. Coming to this country he spent four years in Dalhousie, between 1925 and 1929, and then went to McGill as research professor of physiology and later became chairman of the department. Though he had retired from active teaching duties in 1942 and in spite of ill health, he continued to widen his research filed. During the last two years he has been collaborating with Dr. E. G. Young and Dr. M. Schachter of the Dalhousie medical faculty in a study of pancreatic secretion. At the time of his death Dr. Babkin was on the staff of The Montreal Neurological Institute in a research capacity.

His work bears the imprint of his famous teacher, Pavlov, whose biography he has written, but his work is his own and it has made him internationally famous in the field of gastrointestinal physiology. Many of his students have become well known in their own right. His influence will thus continue to be felt for some time to come. He was a Fellow of the Royal Society of Canada and a one time President of the Canadian Physiological Society as well as a member of other American and British scientific societies, and his publications are numerous and important. Just prior to his death he was elected to The Royal Society (England), one of the very few Canadians in the field of medical science to be so honored.

Halifax was his first home on this continent and he seemed to feel that it was home. He visited us often and always seemed glad to get here. Though his visits were usually for relaxation or rest he was not always content with that. He has addressed the Halifax branch of The Medical Society on more than one occasion. It 1943 Dalhousie honored him with the honorary Doctor of Laws degree and in 1945 he voluntarily gave a series of lectures to our medical students on the physiology of digestion. We will long remember this kindly and courtly gentleman and his thoughtful and meticulously prepared presentations.

C.B.W.

TRAUMA

The Principles of Fracture Treatment

There is a recognized best method of treatment for most medical and surgical conditions. There are numerous recognized methods of fracture treatment. Most of them are transient in popularity and limited in application. All are based upon a single set of principles which have remained constant and applicable to every case.

The late Clay Ray Murray epitomized these principles of fracture treatment in the following hypothesis, "The ideal way to treat a fracture would be to wish the fragments into place hold them there by moral suasion and send the patient on about his business while the fracture healed." Comprehension of the implications of this hypothesis and adherence it its concept are mandatory to good fracture treatment, regardless of the method used.

1. "To wish the fragments into place" means reduction without any additional tissue damage. It can't be done! Nevertheless, the best reduction is that most closely approximating this ideal, i.e. the earliest and gentlest reduction possible. For the same reason (prevention of secondary tissue damage) adequate first-aide care is essential to an optium result.

2. To "hold them there by moral suasion" means maintanence of reduction without interfering with continued function of the associated structures. This is impossible! Nevertheless the apparatus or method most closely approaching this ideal is best, i.e. that which provides adequate stabilization of the bone fragments coincident with minimum interference with local function throughout healing. A healed bone is of little use when the surrounding soft tissue has been ruined by over-immobilization or unnecessary disuse.

3. To "send the patient on about his business" means maintenance of all social, economic and other normal functions of the patient as a whole throughout healing. This is rarely possible. However, the treatment method of choice is that which most closely approaches the ideal.

The aim of fracture treatment is to return the patient to his usual activities as soon and as nearly normal as possible. The above principles are neither rules nor blueprints for fracture treatment. Reduction and immobilization must interfere with funtcion. To concentrate on functio usually precludes reductioo and immobilization. Some fractures demand reductioo and immoobilization at the expense of function. Others require continued function even if this means acceptance of bony deformity. Usually some compromise must be decided upon. The best treatment for any fracture concentrates on the most important at the expense of the least important of the objectives to be attained.

Harrison L. MacLaughlin, M. D.

(Dr. MacLaughlin is Professor of Clinical Orthopedic Surgery Columbia University College of Physicians and Surgeons.)

Aphorism

Always use gentleness and care in handling any broken limb.
Roughness is inexcusable.

Society Meetings

PICTOU COUNTY MEDICAL SOCIETY

Minutes of Meeting—April 12, 1950

A meeting of the Pictou County Medical Society was held in the dining room of the Norfolk Hotel, New Glasgow, N. S., at 6.30 p.m., on April 12, 1950. Those present were Doctors Whitman, Ballem, Smith, Fitzgerald, Stuart, Douglas, Benvie, G. A. Dunn, S. D. Dunn, Blackett, MacQuarrie, Locke, Townsend, Parker, F. Young, I. Mackay, MacLellan, Harries, Arbuckle, Sutherland, Day, Granville, Sproull, Miller, MacLean and MacDonald. Doctors Cedric Griffin, MacIntosh and J. MacCormick were also present as representatives of the Antigonish-Guysborough Medical Society.

The meeting took the form of a social get-together and dinner. The business part of the meeting was brief.

The minutes of the last meeting were read and approved. The annual dues were set at $5.00 to cover the cost of the dinner and entertainment, the balance to go to the treasury.

The present slate of officers was re-elected on motion of Dr. F. J. Granville, seconded by Dr. D. F. MacLellan. This slate is as follows:

President—Dr. H. B. Whitman, Westville.
Vice-President—Dr. C. B. Smith, Pictou.
Secretary-Treasurer—Dr. S. D. Dunn, Pictou.
Representatives to The Medical Society of Nova Scotia—Dr. A. E. Blackett, New Glasgow, Dr. G. A. Dunn, Pictou.

There was some discussion as to the best way to remit the $15.00 fee requested through Dr. Colwell's committee to help pay the expenses of entertainment at the coming meeting of the Canadian Medical Association in Halifax in June, 1950. It was finally decided that this should be by individual remittance.

The guest speaker was Dr. A. B. Campbell of the Workmen's Compensation Board who gave an interesting and instructive talk on the work of the W.C.B. with special reference to the individual problems as faced by the medical profession in describing injuries, rendering accounts, etc.

A vote of thanks to Dr. Campbell was extended on behalf of the society by Dr. G. A. Dunn.

Meeting then adjourned.

S. D. Dunn, Secretary

CAPE BRETON COUNTY MEDICAL SOCIETY

The April meeting of the Cape Breton County Medical Society was held at the Nurses' Home, St. Joseph's Hospital, Glace Bay, on April 27th.

The President, Doctor A. C. Gouthro, presided, and twenty-six members were in attendance. Considerable new business was transacted including plans for the Annual Meeting to be held at the Royal Cape Breton Yacht Club, Sydney, on May 11th.

The scientific programme consisted of interesting case reports presented by Doctor J. A. McDonald and Doctor M. G. Tompkins, Jr., both of Glace Bay.

H. R. Corbett, M.D., Secretary-Treasurer.

A Convalescent Reflects

(Apologies to William Ernest Henley)
"Out of the night that covers me,"
Since clasped in Monday's frozen fold,
I thank what hidden powers there be
For my deliv'rance from a Cold.

Of all the ills in life's decoy
That strikes, tho' full of meat and zest,
This wretched, sneaking thief of joy
Mayhap be Nature's meanest jest.

Beyond this clime of frost and fears
Abides the secret of its shame,
While million victims ooze and smears
And spatter curses on its name.

"It matters not how strait the gate,
How charged with punishment the scroll,"
But he is tough that masters fate
While snorting, sniffling with a Cold.

From out his bag of hopes deferred
The doctor draws a customed feat;
He sees, he knows, he writes a word,
Then, "this will cure you in a week."

Full well he knows—this doctor man,
That Galen and Hippocrates
And all the ancients in their van
Knew just this much, and stopped at these.

The roaring lion of holy Script,
That twinned with Satan in his quest,
Had nothing on this virus swift
That seeks you soundless at your rest.

The lion may grow a kindly "king",
And Satan's wiles be held at bay;
Has science no plan to pluck the sting
And rob this virus of its prey?

An answer comes from Mother Time:
"The hour's not yet, but do not dread;
Meanwhile, old Granny's brews and brine
And, most worthwhile, go home to bed."

She waved her wand. Researchers came
To tell they found the *cure* we seek;
But on the way they caught a Cold,
Were sick, and far too hoarse to speak.

G. H.