

Cancer of the Breast: Factors Influencing Survival

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WHAT is the survival rate in women with Cancer of the Breast who receive no treatment? When they come to us for treatment, how much do we add to their lives? Is it conceivable that we do in fact shorten their lives?

It has been well shown that survival in untreated Cancer of the Breast is in the average $3\frac{1}{2}$ years, being less in the more cellular type of tumour, and in the scirrhus type up to $5\frac{1}{2}$ years.

When we compare with this the survival period in all our treated cases we cannot, I am sure, be too happy about the result.

At best, the condition carries a high potential mortality; at worst that mortality can be made higher by our management of the case. This being so, it becomes important that we should from time to time re-examine this question of survival and be very familiar with those factors that make for better results on the one hand and that make for worse results on the other.

I think the first thing that we must reconsider is what happens when the patient first sees a doctor about a lump in the breast, for the statistics with respect to this do not make pleasant reading.

Haagensen, in a study of one series of cases, as to the manner in which diagnosis was made, found that wrong medical advice had been given in 27 per cent of the cases by the first doctor consulted; while Leach and Robbins in a similar study reported the figure at 50 per cent.

The experience in our Clinic also is that this finding occurs with a much greater frequency than can be regarded with equanimity by any of us.

If we look for the cause of this, I am sure that we shall find in many instances a certainty on the part of the doctor that in his considered judgment he was giving good advice, but if we look a little further we shall find that it was because he relied upon his ability to interpret a mass in the breast on clinical grounds alone. On the other hand, men with vast experience confess that even to them—with all their experience—the physical findings of breast tumours are often seriously misleading. In one Cancer hospital in which a check was made, the accuracy of their diagnosis on clinical findings alone was only 70 per cent, and findings among other expert groups have shown about 30 per cent error in those clinically diagnosed benign, and about 10 per cent error in those clinically diagnosed malignant.

No one should apologize to a patient for refusing to rely upon his clinical findings alone, nor for the necessity for doing biopsies in such cases; indeed the securing of positive proof at, or close to the time of the first visit, must be regarded as crucial to the patient's welfare. Where time is so much against the patient, the importance of "Look and see", as against "Wait and see," is paramount and vital.

*Address delivered to the Dalhousie Refresher Course, Halifax, October 1955

The importance of time in relation to the spread of tumour has been indicated from many sources. Geschicter has shown that a tumour that has been present three months and has attained a diameter of 1 to 1.5 cm has metastasis in the axillary nodes in 25 per cent of cases, and that if it has been present for a year and has attained a size of 5 cm or more, there is node involvement in practically all, and internal visceral involvement in 90 per cent of the cases.

Interestingly also he showed the importance of the rate of growth on five year survival to be as follows:

Less than 1 cm in growth in 6 mos.	84 %	5 Yr. Survival
1 cm in 6 months	63.5%	" " "
Over 1 cm in 3 months	18%	" " "
Inflammatory—Rapid Growth	4%	" " "

There are also Richards figures which relate extent to longevity.

1. Breast Mass—1-3 cm—no nodes	81%	" " "
2. Breast Mass—3-6 cm & few small nodes	54%	" " "
3. Skin dimpling or nipple retraction with a mass, over 6 cm, attached to fascia & few nodes	38%	" " "
4. Skin oedema or ulceration or skin nodules—Diffuse fixed tumour	16%	" " "
5. As in No. 4 with nodules away from periphery of breast, extensive axillary or supraclavicular nodes or distant metastases	3%	" " "

Such figures as these and the sad experience of our own and other clinics, clearly show that if we are to produce the best survival figures, we must have an increased respect for early diagnosis: then we must re-examine our concept of prompt and proper treatment.

Promptness of treatment is obviously influenced by two persons:

- (a) the patient, who says "it never gave me any trouble and so I didn't come earlier",
and ; (b) the doctor who first sees the case.

In the former case, failure to do the right thing is for the most part the result of ignorance and fear. This can be corrected only by education, in which we all, as specially informed citizens, have a definite responsibility.

In the latter case, the speed with which the doctor accepts his responsibility, obtains a diagnosis and secures for the patient prompt treatment may be the really determining factor in her survival.

I have no doubt but that all who hear me here are on their toes with respect to this, accepting the view that any breast lump may be malignant, and that the burden of proof is on the first doctor who sees the patient.

While the doctor may readily diagnose the simple painful breast or the simple adenosis of the young or youngish nervous woman, and will give some thought to the physiological and hormonal elements in her case, and while he may confidently recognize the simple fibroadenoma and blue-domed cyst or even a so-called Chronic Mastitis, nevertheless, he must have his moments when, if he is careful he is stumped. Being an honest man, he has accepted as

a maxim "When in doubt, do a biopsy", and this he proceeds to do. Now that is all very fine, provided that he is ready to accept some restriction—some modification maybe—of the biopsy procedure.

If we have an ulcerated tumour on an epithelial surface, there would seem to be no known reason why cutting off a wedge from its margin or base for examination should not be good practice. Unfortunately, that is not as obviously true of Carcinoma of the Breast.

Years ago when I sat at the feet of James Ewing, the greatest Tumour Pathologist of his time, he steadfastly affirmed that one may not with impunity cut into a breast lump for biopsy, but that the lump should be widely removed, the cavity packed with formalin-wetted gauze, the wound temporarily closed, and the instruments discarded. While the surgeon awaited the pathologists word on the quick section, the patient is kept asleep, and if the finding is Cancer, the radical operation is done immediately. This has been re-iterated by many observers.

More recently there is a disposition to accept the cutting into a large breast tumour, for a scrap for the pathologists quick section, the radical mastectomy to follow immediately on a positive report, as in the Ewing procedure.

There are points in favour of this incisional biopsy, remembering always to discard the biopsy instruments and reprepare the area; but it must be accepted, that only the delay sufficient to get the report of the pathologist *who has been on the spot to receive the tissue*—a delay expressed in terms of a few minutes—is allowable in either procedure.

To close the wound and wait for twenty-four hours to a week or more before doing the definitive operation is to incur the risk of spreading the cancer, beyond the limits of the usual operation.

An example of such spread from a biopsy incision is shown on this slide:

This woman—age 38, came to us March, 1955 from another country where the lump in the breast had been removed for biopsy months before and cancer diagnosed. In the interim she had been given x-ray therapy. When she came to us she was definitely Stage 3 with supraclavicular metastasis and extensive axillary node involvement. By our standard she was categorically inoperable.

One of the interesting things about her now, as shown in this slide, is the appearance of local spread in skin and subcutaneous tissue about the upper end of the vertical biopsy scar—a whole bunch of nodules, at first localized, but beginning to fan out when this picture was taken.

This supports the view that the cutting into or across the pathway of the tumour cells facilitates the dissemination of those cells; and we believe that this is not only mechanical, but physiological also, by virtue of the loss of the normal reaction of tissues against the advance of disease which was occasioned by her surgery.

It will be noted in this case that not even irradiation, neither the original that she had received, nor that given later by us, could offset the loss of her tissue restraint nor restore it. The recurrence that you see about the operative site is in spite of the irradiation. When we discuss operability we shall again meet this phenomenon of inordinate spread of tumour cells caused by cutting into or across tumour-infected tissue.

Now I am sure that some of you will want to criticize the restraint upon the biopsy of tumours which is here suggested, as being the counsel of idealism and utterly impracticable in the light of the lack of pathologists in the operating rooms of many of our hospitals. I am not unaware of that very real difficulty and knowing it I have no great liking for the unpopular position which I have here created. We cannot, however, compromise with error, but must acknowledge that it is only by accepting the ideal, and religiously following it, that we may hold our own in the mortality of Cancer of the Breast as it affects the people for whom we are responsible.

Granted that in many places the problem of getting this kind of pathological service is one of real magnitude, yet you will agree that no problem gets solved that is not squarely faced. Until it is solved, circumstances may require many makeshifts, or the acceptance of unpleasant disciplines, from the surgeon doing his own quick sections (and unnecessarily removing non-malignant breasts or leaving on malignant ones) on the one hand, or on the other hand, sending his patient to where certainty and protection may be secured for every step.

Perhaps by the time we have National Health Insurance we shall have a good tumour pathologist in every hospital or for each regional group of hospitals! Meanwhile, no argument could be more valid than that such pathological services should be available to every patient with suspected Carcinoma of the Breast.

The condition having been diagnosed as Cancer, by whatever means some other thoughts intrude themselves before we proceed to treatment.

I have here intimated that even in doing a biopsy, if the surgeon cut through or across tissue containing malignant cells, unless in a few minutes he removes the tissues well beyond, he incurs the risk of removing any natural tissue restraint that the patient might have against rapid dissemination of those cells. If this is true in the doing of a biopsy, it is all the more true at the more extensive definitive operation. If it is done, it tends to shorten the life of the patient by many months.

This slide is of such a patient: We inherited her when we opened our Clinic. She had been operated on by a very good surgeon, but was at least Stage when she was done.

There is here gross local extension in just about every possible direction from her scar—up over the clavicle into her neck, throughout the skin of the axilla and upper arm, across the chest to the opposite breast and downward into the abdominal wall.

No one would doubt that the operator was very conscientious about his decision or that his actual dissection was clean and sharp. He might well have even considered her as incurable and undertaken the operation on that old reasoning that it would prevent fungation. That argument, however, is no longer valid. It has been swept away for the very simple reason that in general, in the purpose for which it was undertaken it has no merit and because in the over-all effect it is a shortener of life.

What then *is* the place of Surgery in Cancer of the Breast, or to what degree has it been supplanted by other therapeutic agents?

I think it should be said here that most of our good radiotherapists today—and most of them are good—acknowledge very sadly that they do not pretend to cure Cancer of the Breast, nor its axillary metastasis.

Yet in defiance of this we have the McWhirter procedure consisting of simple mastectomy and reliance upon x-radiation for cure of the lymph nodes. There is no doubt but that the results of this procedure, as published by McWhirter, have for a time at least made converts to his belief. Some of them accept it because it makes surgery so easy, some in honest acceptance of his findings. Yet after all this time since the McWhirter contribution was made to the literature of the subject, how many of our specially concerned surgeons are practicing the method?*

Now I would be the last to suggest that the quality of a given procedure is established by the degree of popularity that it enjoys. Refusal to accept its principles must rest and does rest on firmer ground.

Without attempting to adduce all the evidence in the McWhirter case, I would again point up one most important fact, and I shall do so in question form: How many believe that nodes involved in Carcinoma are sterilized by x-ray?

With the answer to that what it is, are we justified, in any given Stage 2 case of carcinoma of the breast, in depending on x-ray to do what can so much better be done by surgical extirpation?

I think most of you will agree with Peters when he says: "Acceptance of a method leaving cancer cells behind is most unattractive, especially when a method is available affording a reasonable opportunity to eradicate those cells, the growth of which is unpredictable and certainly inevitable."

I must here interject this statement that when surgery is clearly indicated it should be extensive and meticulous at whatever the cost in time. In this connection it might be remembered that Sampson Handley, who first described our familiar radical procedure, nearly 60 years ago dissected the supra-clavicular fossa, and in recent times we have had men like Adair recommending the removal of the clavicle and 2, 3 and 4 Costal Cartilages, so that supraclavicular, internal mammary and axillary nodes, and all other tissue encircled by the dissection may be removed en bloc; and I mention these only to show that for a long time men have been reaching out to get beyond the limits of the spread of the disease.

But that "the method is available" as suggested by Peters is not everything. Experience has shown us that it is necessary to employ surgery with such restraint that we now find ourselves with a greatly changed pattern in the therapy of Breast Cancer. This change in the pattern of our therapy is the result of that very profound modification of our criteria of operability which our survival figures have made necessary.

The following were set down by Haagensen and Stout in 1943 as *cases categorically inoperable*:

1. When oedema involves more than one-third of the skin over the breast.
2. When malignant nodules are present in the skin over the breast.

*Ackerman's report from McWhirter's own clinic published in the Sept.-Oct. number of "Cancer" should be read in conjunction with this.

3. When the Carcinoma is of the inflammatory type.
4. When any two of the following are present:
 - (a) Ulceration of the skin
 - (b) Oedema of skin of limited degree—less than $\frac{1}{3}$
 - (c) Fixation of tumour to chest wall.
 - (d) Axillary lymph nodes 2.5 cm in transverse diameter
 - (e) Fixation of axillary nodes.
5. Where there is oedema of the arm.
6. When with axillary nodes clinically involved dissection of the supraclavicular fossa shows metastasis in its nodes.
7. When with axillary nodes clinically involved biopsy of the internal mammary nodes shows metastasis.
8. When x-ray indicates bony metastasis.
9. When x-ray indicates pulmonary metastasis.
10. With any indication of liver metastasis.

These Ten Commandments of Haagensen and Stout fall within our Stages 3 and 4 which we regard as inoperable.

These now find general acceptance in principle, but are not everywhere finding their logical application. We are, however, being forced by our terrible survival rate to re-examine and to honestly adopt those criteria of operability, for failure to respect them means a lower survival rate.

Let us look, for example, at Number 6:

We examine a patient and find a small lump in the breast having the classical properties of Cancer. We examine the axilla and find some small, firm, freely moveable nodes. On the fullest examination—clinical and x-ray, we can find nothing else, so we enter her as Stage 2, and therefore, categorically operable. But in this case really an operable one?

Reports are available in the literature showing a range of 22 to 33% of patients who, presenting just such a picture as this, were shown by dissection of the clinically negative supraclavicular fossa to have malignant supraclavicular nodes, changing the picture from Stage 2 and operable, to Stage 3 and inoperable.

I'm sure we've been distressed very frequently to find that an apparently early Stage 2 which has been subjected to the most extensive and meticulous surgery—returns in a few months or a year with a malignant nodule above and behind the clavicle. It is not too comforting to realize or to admit that *we should not have done that mastectomy* had we known that the malignant cells had anywhere gone beyond the limits of our operative field.

There are two possible answers to this: one is to dissect the supraclavicular fossa first, and only to do the radical mastectomy if the nodes found contain no malignant cells—a simple procedure and a wise one. The other is the extension of the operative field to include the clavicle, the supraclavicular nodes and the internal mammary nodes—all removed en bloc with the radical mastectomy. While we subscribe to the value of doing an internal mammary biopsy (through the second interspace) especially in medial-half tumours, just as we would with the supraclavicular nodes, we have not yet seen justification for this veritable commando procedure. The main point in all this, however, is that seeing so many of those people with recurrences after surgery and realiz-

ing that when we operate upon them, if we do not cure them there is a very great chance that we make them worse, we must admit that it has become necessary for us to review our procedure, and to put very real restriction upon our surgical proclivities.

Acknowledging then that any given case has gone beyond the border of operability, and this now involves a great number of our cases—by what means may we still contribute to their curvival rate? (Unfortunately in the more advanced cases it often means—how best may we reduce their suffering?)

We think of x-ray first. In some, it would seem to have marvellous restraint upon growth and in bone it, in general, gives great relief of pain. In so many cases, however, the growth soon breaks away from this restraint and x-ray ceases to have value; nor should it then be persisted in. Radiation pneumonitis and fibrosis and radiation osteitis may be distressing conditions and these complications are too common to be disregarded.

Inevitably we get into the realm of the hormones and the whole long story of the endocrine glands. There is no doubt but that oophorectomy has value in some cases. I never hesitate to recommend it even in quite young women in Stage 1 or Stage 2 cancer if the primary tumour is pathologically of active growth and especially if the growth, no matter how small, is in the medial half of the breast.

But it is in the clinically non-operable cases that the subject of the hormones looms so large with us and opens up the question of hormone-dependent tumours. Much has been written about this and we had ourselves developed some concepts with respect to the way in which hormones influence tumour growth. In trying to make them work out on the basis of current thought, however, we have run into no end of confusion. Much that has been believed has not been confirmed in actual work on patients and we are just now at the place of beginning all over again to find laboratory explanation for some of the clinical phenomena that we observe.

I have already mentioned oophorectomy for the reduction of oestrogen. I cannot say what the upper limit of age for this should be, nor is it possible to predict its probable effect. It is known that oestrogens are elaborated long after the menopause, maybe for more than ten years. In general, if testosterone is indicated we prefer to see the ovaries out.

It was believed at Huggins Clinic when I was there a couple of years ago, that if adrenalectomy is to be done, the ovaries first should be removed.

It was Huggins and Dao who advanced the view that the renewed growth of a hormone-dependent tumour after oophorectomy, following a period of recession, is due to the elaboration of steroids by the adrenal cortex, and they showed that a further regression of the tumour was induced by removal of both adrenals.

From time to time since then, we have seen and heard of reported cases and series of cases showing varying results of adrenalectomy. One of these was in the first number of the B.M.J. this year when Sir Stanford Cade published a series of forty-six cases, 23.7 per cent of which showed remarkably good results, 31.6 per cent satisfactory improvement, with old lesions fading out and new ones appearing, while 28.9 per cent showed no improvement in

any way. I have since heard him speak indicating good results in about 30 per cent of cases. No one claims any cures.

Some of the failures in adrenalectomy to maintain its good results are said to be due to the presence of aberrant adrenal tissue. In particular this is said to be found if one looks for it, in the pelvis, attached to the top of the broad ligaments and occurring as one or two tiny masses of 4 or 5 mm diameter. It is, however, not the whole answer.

On the theory that oestrogenic activity of the adrenals is the result of stimulation by pituitary tropin, the Scandinavian workers Luft and Olivecrona, removed the hypophysis in a series of cases of advanced metastatic breast cancer and saw as a result healing of grossly ulcerated breasts and, by repeated biopsy, gradual disappearance of malignant cells.

Because some of the reports that came to us on adrenalectomy were not good, and because we sensed a mortality of fair proportions for the operation itself, we at our Clinic had decided against adrenalectomy in our cases and when hormones, with or without oophorectomy failed to hold, we began to suggest hypophysectomy. This was encouraged by the finding that hypophysectomy for advanced cancer of the breast carried virtually no mortality, which is not true in adrenalectomy, and which strangely enough, is not true in hypophysectomy for other conditions.

Our first patient was Mrs. M., 46. First seen by us March 1954. Following is a summary of her case:

Loss of weight extending over a year.

Pain in back and hips, 5 months.

The left breast was almost completely occupied by a hard tumour which was deeply ulcerated in its lower half.

There were cutaneous nodules over abdomen and chest wall.

Lymphadenopathy: Hard fixed masses and many discrete nodes in axilla and hard fixed masses in supraclavicular fossa.

X-ray showed osteolytic lesions in dorsal, lumbar and sacral spine, in bones of pelvis and in ribs, right and left. By all ordinary criteria her condition was hopeless.

Because of her advanced condition and her pain, all intermediary steps were discarded and she was offered hypophysectomy with full knowledge of all the fact as we had them.

Dr. Tønning of the Department of Metabolism assumed responsibility for the very important pre-operative preparation and for the post-operative adjustment, and Dr. Stevenson and the Department of Neuro-Surgery for the operative procedure. She had her hypophysectomy on April 1st, 1954.

Removal of the pituitary appeared to be complete and, interestingly enough, showed within it a small deposit of carcinoma from her breast.

One need not say with what interest amounting to wonder we have watched this patient. Her pain disappeared, her sense of well-being was soon re-established, the breast lesion healed and reduced itself to a small firm scar where the ulcer was. (We did repeated biopsies on the disappearing lesion.) She soon resumed care of her home and dismissed her housekeeper. She not only runs her house but she keeps a store and enjoys dancing. She will now walk around among you.

Examined by us in Tumour Clinic this morning, there is nothing visible or palpable of the lesions described except the little nubbin of scar, and x-ray reports satisfactory re-calcification of her bony lesions.

How nice it would be if all our subsequent cases—now 13 in number, had done so well!

The second, for some reason was technically a difficult one to do and the removal was thought to be not complete. Her original left breast lesion was clinically Stage 2 and so, was regarded as operable, but distant recurrence was so prompt that she was almost certainly Stage 3, and so of the primary non-operable class when she was done. Her lesions were entirely soft-tissue—nodes and lung which, as with Testosterone Therapy, seem in our cases not to do as well as where the secondaries are in bone. Her hypophysectomy was of no value.

Of our subsequent cases, however, we have seen some remarkable results and more failures, but it is too early to classify them. We can at best claim two good ones out of the first six. Operative mortality has been zero. Maintenance of hypophysectomy cases is easy, and, as compared with Testosterone Therapy of low cost—12-25 units of Cortisone and about $\frac{1}{4}$ gr. thyroid ext. a day.

Short of hypophysectomy we carry on many patients on Testosterone or Oestrogen by mouth. In general our dose of Testosterone is somewhat higher than in some clinics—100 mgm daily (25 mgm q.i.d.) in patients up to five or more years post menopause; and oestrogens are exhibited in patients beyond that point. One will, however, meet paradoxical situations in which in some younger persons with Testosterone failing to influence the growth of the tumour, a switch to oestrogens will give value. We think in terms of the equivalent of Stilboestrol 15 mgm daily with Dienoestrol or Oestradiol as occasional alternates.

Spectacular results are seen at times in the use of these things, but some fail to do anything from the first. Our tendency has been to use them until they fail to show improvement or to maintain improvement and then to recommend hypophysectomy. However, in some cases that come to us with multiple bony lesions and severe symptoms, we are now more disposed to offer hypophysectomy at once.

There are of course many aspects of this problem that we do not understand! We get to the place where a pattern seems to emerge and then run into the exceptions that yield opposite results. Our own clinical observations, our struggles to understand the varied phenomena that come into our view and the frustrations that we meet, serve to point up all the more the imperative need for more research in the subject of growth. Many most interesting—indeed fascinating—facts are being adduced by such research even now, but though encouraging they still lack that common denominator which it is hoped will, even in my day, bring us to full understanding.

Meanwhile our proximate objectives must be:

1. To educate our people to early diagnosis;
2. To appreciate the principle, both in biopsy and in definitive operation, that the scalpel carries potentialities for great harm, as well as for great good;

3. To accept the problem for those denied operation under our criteria in such a way as to make survival for those patients all that it can be; and finally
4. To realize that the problem of survival is one demanding the renewed and careful study of every doctor who sees a patient with cancer of the breast.

BURSARY FOR TRAINING IN CLINICAL PATHOLOGY

A Bursary covering training in Clinical Pathology leading up to certification in this subject will be available commencing in July, 1956. For further information interested parties are asked to write the Director of Radiological and Laboratory Services, Department of Public Health, Provincial Building, Hollis Street, Halifax, N. S.

Frank W. Horner Limited, Montreal, announces the appointment of Lyle Brennan, M.D., C.M., as the Company's Medical Director.

Born in Smith Falls, Ontario, Dr. Brennan received his honours B.Sc. in biochemistry from McGill University in 1943. He then served three years in the R.C.A.F. as an officer, navigator and instructor. Upon discharge, he returned to McGill to complete his medical studies and graduated in 1950. Dr. Brennan served both junior and senior internship at the Ottawa Civic Hospital. He has also spent some time at St. Joseph's Hospital, North Bay, as a lecturer and secretary of the Board.

Before joining Horner, Dr. Brennan spent 1 year as medical officer at Fort Nelson, British Columbia. And 2 years in general practice in North Bay, Ontario.

The Place of Psychiatry in Industry*

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HISTORICALLY and sociologically, modern industry and modern psychiatry have in essence the same origin. The focal issues of our era are the economic, technical, social and human consequences of the Industrial Revolution—the Revolution which replaced the manual dexterity of independent artisans with machines—machines belonging to the factory owners or impersonal money lenders. Thus, proud self-sufficient tradesmen were suddenly transformed from independent artisans and owners into—hired employees. The assembly lines swallowed the individual up, isolated him, robbed him of his self-esteem and, consequently, disturbed his mental poise in a manner which ultimately reduced his efficiency, both within and without his work situation. A society made up of people who, to an increasing degree, were losing their focus of orientation, had to initiate self-corrective mechanism in order not to disintegrate—and psychiatry, as we know it to-day, is one of the many social institutions which developed out of the need to counteract the demoralizing and disorganizing tendencies of increased mechanization and human dislocation.

However, at first the mechanisms of self-correction were of a physical character only. Public Health and Industrial Hygiene concerned themselves with physical disease, infectious conditions, environmental factors in factories, and hygienic work conditions—and accomplished a vital task. Public Health principles are now generally accepted by industry and are automatically introduced into the planning stages of industrial developments. Such things as the employee's physical examination, architectural improvement, better lighting, the proper placement of machinery, and countless safety measures—these are all matter of course to-day, and we have reason to be proud of these achievements.

However, in spite of all these precautionary and remedial measures, the anticipated increase of efficiency of the workers has not been realized. In addition to the modification of old problems, new problems have developed. For the solutions, we are having to look elsewhere.

Until only recently psychiatry has been considered the Cinderella of Medicine. The psychiatrist was looked upon as a physician for the mentally ill—those who were dangerous either to themselves or to others, and who were confined to a mental hospital as far as possible removed from inhabited areas. In recent decades, the picture began to change. Psychiatrists stepped out of the mental hospitals into other areas of interest. As consultants in general hospitals, in community clinics, in private practice and through their participation in social research, psychiatrists not only widened their scope of activi-

*Presented at the Annual Meeting of the Canadian Public Health Association, Atlantic Branch, at Kentville, N. S. November 9th and 10th, 1955

ties, but also learned to recognize the potential value of their specialty for other fields of human endeavours. A great deal of knowledge was also gained about the efficiency of individuals and groups under stress in World War II, in no minor degree due to the contribution of psychiatrists in the armed services.

Theoretical and clinical advances in psychological medicine previous to World War II led to improved treatment and rehabilitation of psychiatric war casualties and new insights into their prevention. The sociological and psychological study of groups and the practical experience gained thereby contributed also to new insights into human behaviour. All these experiences led psychiatrists into apparently such unrelated fields as criminology education, as well as the study of human relations in industry. More and more scientists interested in human behaviour—psychiatrists were actually latecomers in this field—began to grow aware of the psychological and emotional factors in industry and the maintenance of industrial morale. Several years ago, Elton Mayo, Professor of Industrial Research in the Harvard Business School published a book entitled "Social Problems of an Industrial Society". In it he pointed out that practical experiments had led him and his collaborators to the conclusion that the gratification of certain basic needs in workers is more important than material conditions, more important even in some cases than financial gain from the work. The creation of Personnel Departments in major industrial concerns began to demonstrate that industry was recognizing the importance of psychological factors in our industrial society. To-day, many such personnel departments are headed by psychologists or especially-trained administrative personnel—only rarely by psychiatrists, though an increasing number of industrial organizations have psychiatrists on their part-time or consulting staff.

So industry and psychiatry have been drawn together. What are the problems which led to this co-operation?

Perhaps the most conspicuous problems in industry to-day are those which two recent authors have called the problems of the "Three A's"—Absenteeism, Accidents and Alcoholism. No business or industry is free of them. These problems can be expressed quantitatively in statistical terms and are considered to be sensitive indicators of the morale existing in factories, offices, or any other place where a large group of people work together for prolonged periods in relatively close proximity.

Doctor Norman Plummer of the New York Telephone Company and his associates recently studied the absence patterns of many employees throughout their total period of employment. These are some of the findings. "Three fourths of all the absences in any given year are found amongst one third of the workers. The group of employees with the highest absences in their first year of service had the highest average yearly absence throughout their entire period of service. There are 'sickness-prone' as well as 'absence-prone' employees. A direct comparison between low absence and high absence women-employees reveals slight differences in susceptibility to organic disease such as cancer, heart disease, infections—but marked differences in susceptibility to the functional diseases, or the disorders of feelings, thought and behaviour."

The main causes of absenteeism are usually short-term illnesses, which don't endanger the patient's life, and most of them are functional conditions—

i.e. conditions in which no organic abnormalities can be demonstrated, such as headache, some forms of back-ache, intestinal upsets, painful menstruation, generalized or localized symptoms of anxiety, and so on. In addition to the absenteeism of the worker is the unmeasured loss due to mild illnesses, which do not keep men from their work but do interfere with their efficiency. Doctor Lydia Giberson of the Metropolitan Life Insurance Company stated in 1948—"Just when the psychoneurotic or maladjusted employee is not obviously ill enough to the untrained eye to be away from work, is the very time when he is a real cost to the organization. His lowered efficiency and emotional distortion affects sympathetically all those around him, and the morale and working efficiency of a group may be seriously lowered by just one of them."

The industrial accident mortality has been cut in half during the past twenty-five years by strenuous safety measures, but still investigators in the United States found that about fifteen thousand workers died in industrial accidents last year, and two million suffered disabling injuries, at a total cost of more than three billion dollars. Doctor Flanders Dunbar coined a new word for the industrial and psychiatric vocabulary, and that is "accident proneness". Industrial investigation, as well as the statistics of insurance companies, indicated that there are people who seem to suffer from a series of accidents far beyond the statistical probability, if measured by the total population. In addition to the seriousness of accidents to the individual and the cost involved for him, for industry, and for the community—"accidents seem to act as a sensitizing factor, or trigger mechanism, for other accidents to the patient, family, or co-worker."

Alcoholism has been termed "a billion dollar hangover for industry." An estimated "one out of fifty workers" is a problem drinker, and 89 per cent of them are in the thirty-five to fifty-five age range—at which time industry has a heavy investment in them. These people have been alcoholics for a long period, but at their most productive age their alcoholism begins to interfere with their efficiency, and thus forces industry into a dilemma—t.i. whether to rehabilitate these people, or dismiss them. Some industries are not only aware of the serious problem of alcoholism, but are willing to support clinics for alcoholism and employ special consultants for the management of this problem.

The "Three A's" are not the only areas of interest for psychiatrists. Amongst other industrial mental health problems are—the occurrence of emotional disorders in individual employees, and their effect upon the efficiency, communication and morale of the whole industrial organization.

The problem of employee-turnover, the study of specific stresses upon leader-employees in certain areas of industry, and interpersonal difficulties (especially on the foreman level) are all aspects of human relations in industry which deserve some psychological and/or psychiatric attention.

So far I have discussed the problems as they affect large groups such as are engaged in industry, but it must not be forgotten that the individual himself is the important factor in all such groups. Every group consists of individuals. The individual is the product of his constitution, of his environment, culture, the value system to which his society subscribes, and the stresses to which he was exposed throughout his life, especially in his early childhood.

When we go out to hire an individual for a certain job, we of course would like to know if this person is—not only physically healthy, but whether he has the intellectual ability and emotional capacity to live up to the expectations of this particular job. The question comes into our minds—What is *normal*? What is mental health?

Many studies are taking place at the present time which have as their goal the answer to these questions. When can a person be considered emotionally and psychologically normal? I myself was attached to a research team which studied this particular question and we came to an operational definition of mental health. We felt that a person is mentally healthy if, first, he is either physically well or has adjusted himself to any physical defect or illness he may have had. Secondly, if he has accepted his assets and his liabilities and is happy about them—i.e. if he has no incapacitating conflicts within himself. Thirdly, if he has no difficulty in relationships with other human beings. And fourthly, that he has developed some philosophy of life and has some basic concept of where he fits into this universe of ours.

Fundamentally all people adjust to the conditions of life in one of four ways. First—the Normal, and I have spoken of normalcy. Secondly, the Neurotic, who has difficulties within himself. Thirdly, those who suffer from a disorder of their personality. These are people who have difficulty with others, and fourthly, the Psychotic, who has difficulty with reality.

In general, the Normal human being is interested in people. He can take some set-backs. He is aware of his assets and his liabilities and accepts them. He becomes irritated at times when the occasion becomes too stressful. He can tolerate a fair amount of frustration and anxiety. He is honest and direct, and reacts realistically to stress situations. He discusses his problems with his mate, or with his fellow man or woman. He gets physical and emotional satisfaction through and with the one person he loves, and he does not permit thoughts of ultimate death to prevent his enjoyment of daily living. He is physically healthy, or accepts deformities or illnesses realistically. He is happy and relatively free from internal conflicts. He gets along with his fellow man and has developed, to him, a satisfying philosophy of life. Finally, he is objectively critical.

The Neurotic is always afraid that he won't make a good impression. Very often he feels out of place, fearful that he won't be accepted, even if his past experiences have persuaded him of the opposite. He is concerned about his state of health. He feels easily hurt and rebuffed, loses his self-esteem quickly, and quite often feels guilty about negligible omissions or mistakes. He at times feels rather resentful, but never expresses it. Sometimes his unexpressed aggression and hostility make him feel very anxious, and at times panicky. If he reads anything about medicine, he is sure that he is the disease he is reading about. He is compulsive at times and has to do things in a certain routine, and if this routine is disturbed he becomes anxious again. He is never sure of himself. He doubts either his own feelings or those of other persons. He loses self-esteem and constantly reproaches himself for mistakes. Physical symptoms of a functional nature, such as fast heart-beats, sweating, pain in his neck, butterflies in his stomach, are frequent complaints. In periods of stress, he turns helplessly to any seemingly strong person to solve his pro-

blems for him. He is undecided. At night, he tosses for hours. He tortures himself for his mistakes or omissions during the day. He is moody, emotionally unstable. He is up at times, and at others he is down, without any apparent external causes. He has irrational fears, such as going up in an elevator or crossing a street.

The person who suffers from a personality disorder tries to impress everybody in the group with his self-assurance. Very often he does not tolerate frustration or anxiety too well. He starts an argument or a fight with very little provocation. He feels important and tells you so. He complies with socially accepted rules for a short period, but is unable to hold his own feelings in check. He always plays up to somebody else, for instance, very often gets married without love, but for individual gain—financial or prestige.

He does not respect the welfare, advantages or integrity of his fellow man. He gets himself continuously into troubles and difficulties. Very often, he can talk himself out of it. In his sex relations, he is promiscuous and exploits the member of the other sex for his or her own gratification. While the Neurotic realizes that he is disturbed and ill, and has the best intention of doing something about the symptoms which are distressing to him, the person with the Personality Disorder does not know, nor does he want, to accept the fact that he has emotional difficulties. Therefore, he is not motivated or willing to do anything about his problems. Extreme cases of character disorders are the Psychopaths who commit anti—and asocial acts without any feelings of guilt.

The Psychotic is a person who is partially or completely detached from reality. He mistakes identity of individuals. He "knows" he is being persecuted and being harmed. He is a person who has bizarre delusions, that is to say, false beliefs such as that his nose is distorted or disfigured, that his intestines are gone, or that he is a disgrace to his family—and so on. He is lost in his own phantasies. He may hear voices, and pays no attention to what is going on around him. He is day-dreaming, and if approached at this time by a friend, he wouldn't recognize him nor would he care to speak to him. He himself realizes at times that the world around him has changed or that he has changed. Some psychotics feel that they are most inadequate and unworthy. Some again inflate their personality and become famous people. Impulsive acts and suicides are not uncommon. In general, there seems to be no logical correlation to what happens to him and what he does in response to it.

At this point, you may rightly ask "And how can we use all the facts and knowledge psychiatry provides for us—in industry?"

First—psychiatry can help in the handling of individuals; not only individuals who suffer from any of the aforementioned mental diseases but also other cases such as chronic hospital users, cases which receive workmen's compensation, cases who are on sick leave on many occasions, workers who are frequently absent for short-term periods. Psychiatrists may advise industry on those workers who, in stress situations, develop some incapacitating physical or emotional disorder. They can advise in cases where there is a specific job disability and suggest perhaps what particular job may represent stress in itself. In every industry we have people who become very tired. The fatigue problem is a very real one and very often emotional factors play a large role. The psychiatrist can help the employer to recognize nervous and mental cases,

attend an initial interview which may prevent and avoid many disappointments in the employment of new workers, and he can assist the plant physician in rendering emotional first aid. He may assist in the transfer of personnel from one department or from one job to another. Problems of promotion may come within the sphere of consultations with a psychiatrist. Interviews of anyone who is discharged, resigned or leaves for other reasons, may be helpful in giving information about the possible dissatisfaction on the job, the handling of personnel by superiors.

Then there are Group Problems. The psychiatrist could supervise and advise on a survey of the personnel within a plant. The question of modification of jobs may come up. An individual personnel programme for each worker may be devised. Problem employees may be discovered and so brought to treatment, or be helped to adjust, or transferred to another job. Psychiatrists could not only help in detecting emotional difficulties in senior members of the staff—for instance, in those assuming responsibility of leadership. The survey may discover promotional material. Lack of efficiency of leadership in general may be detected. Grievances could be analyzed not only on the basis of its manifest, but also on the basis of its latent content. Many grievances in industry are signs of emotional friction rather than legitimate complaints about financial and/or material conditions.

A psychiatrist could also sit in on conferences on higher level policies, where such problems are discovered as t.i. improvement of training, the problem of group morale, how to diagnose trouble spots, what can be done about it, operation of departments, discussion of communications—all of these are important in every administrative organization. Speaking of communications, I would like to mention the foreman—who receives communications from above and below, and very often feels like a kernel of corn between two millstones. Too often, there is no opportunity supplied to the foreman to discuss these incoming communications from above and those from below, with any responsible person.

Psychiatrists may also participate in the training of the staff, particularly of the staff which deals with other people. Group discussions on psychological problems are found to be beneficial to better handling of personnel problems especially on the foreman and supervisory levels.

It goes without saying, I think, that the medical department should be one of the major focal points within industry from which the spirit of constructive human relationships should constantly radiate. Striking evidence of this need is given in Doctor William J. Fulton's article "Industrial Medical Potentials; A Time and Job Analysis of Medicine in Industry" which was published in the Journal of "Industrial Medicine" for July 1949. Fourteen years of experience and observation form the basis of Doctor Fulton's unqualified statement that—"the human factor, not the health factor, is the underlying cause of most accidents, complaints, and personnel problems." True physical causes for complaints brought to the medical department were found in less than fifty per cent of the patients. Another of his significant findings is that eighty-five per cent of direct medical services are utilized consistently by only thirty per cent of the employees. This thirty per cent group includes the large majority of sub-standard workers with emotional, neurotic, psychosomatic and psy-

chiatric problems. Even though these individuals use up over twice as much time for physicians and nurses as average employees do, any curtailment of service to them would inevitably increase their already high rate of absences, minor accidents, dispensary visits, unsatisfactory personnel contacts, and incidence of grievances. Inadequate handling of the problems of this minority group would in the end still further reduce the medical care available to the other seventy per cent of industrial society.

As Doctor L. E. Himmel of Ann Arbor, Michigan, states—"I am aware that one of the most important tasks which industrial psychiatry still faces is that of explaining itself to those it can so effectively serve. Far too many industrialists still cling to the traditional belief that psychiatry benefits only the obviously mentally ill, and that it does relatively little to conserve the mental fitness of average normal individuals, much less actually to increase the productive capacity of people in working groups."

Last but not least, I would like to mention one more function the psychiatrist could assume, together with responsible leaders of industry. Every factory and every plant is a microcosm in which we can learn a great deal about basic principles of human relations, of group morale, of human motivations, and the aspirations of the modern man. It may be able to contribute some knowledge of the better understanding of more fundamental problems in modern society. The rapid increase in technical skill and knowledge must be accompanied by deeper insights and better utilization of all we have learned about human behaviour. If we neglect this important part of human destiny, our society may eventually be more endangered by internal chaos than by external enemies.

Thoughts and Reflections

(About Psychoanalytical Theories)

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THE rapid advancement of science during the nineteenth century, and of medicine in particular with new discoveries in every field, made the representatives of medicine proud and intoxicated with their achievements. Everything could be explained now through pathology, physics, chemistry, biology, etc. But then came the "thing from the deep;" for the discomfort of the scientifically-minded medics, and as a shock to the stuffy Victorian society! We must give Freud the credit for this. His work was and remains a valuable contribution, although finally it degenerated into an all-embracing creed and dogma.

Freud's two co-workers developed their own theories of psycho-analysis. I will attempt to give here a short account of this triad: Freud, Adler, Jung.

"Mental Masturbation" (Freud).

Freud's psycho-analysis is a sexual analysis (pansexualism). Sex is the cause and the "spiritus movens" of all things. Take Freud's interpretation of dreams:

Penis: pole, tree, umbrella, revolver, knife. A girl dreams of a man chasing her with a "knife." A symbol of a penis is also an object from which fluid runs, e. g. water-tap. Vagina: cave, hole, bottle, box, suitcase, handbag, pocket; also church, chapel. Breasts: apples, oranges, etc. Onanism: playing piano. One of Freud's zealous pupils, Levy, published a book "Die Sexualsymbolik der Bibel und des Talmuds." He has no doubt at all that a house always symbolizes a woman, the door—the vagina. "The man complains he found the door open" (virgo perforata).

We can answer Freud to such "interpretations:" Human nature is unbelievably complex and a one-sided dogmatic interpretation will always be a failure. "It is in the technique of interpretation (that is, of dreams and free association), and especially in the use of symbolism, that Freud and his disciples have been led to the profusion of the arbitrary, of obsessional dogmatism, and pedantry" (Maritain J. "Freudianism and Psychoanalysis," 1940). Freud's libido theory, and especially the Oedipus and castration complexes, do not go to the heart of the real problem of human love. To Freud's claim, "Man is what he hides," (a wretched little pile of secrets), Andre Malraux returns a proud answer, "Man is what he achieves."

Keeping his eyes not on heights, but on "mushrooms" was typical for Freud and his orthodox followers (one of Freud's hobbies was hunting for mushrooms, which grow in musty, dark recesses. . . like neuroses).

Even more startling is Freud's interpretation of the child's behaviour. To begin with: "The child is basically amoral, asocial, and an absolute egotist." Only a preconceived, twisted, neurotic mind could throw such accusations at children. Except for the inheritance factors, children are a "tabula rasa," until the educational engrams are printed upon their soul and character. To prove the child's amorality Freud invented a special "terminology:" the autoerotic period, Narcissism, the oral—, anal—, urethral zones, the Oedipus complex.

A baby of six months does not know about its "amorality." What Freud calls infantile sexuality and auto-erotic practices, the unprejudiced mind will call simply sensual gratification allied to behaviour disorders like thumbsucking. And it is practised chiefly by children who are bored, or insecure, or in pain. Appropriate adjustment can be made before a habit is formed.

Neither is the child "asocial" or an "absolute egotist." On the contrary, the child yearns for love, care and attention; it wants very much to be "social," it gives away its best toy to someone it loves. It is we, the parents, the adults who make the children amoral, asocial and egotistic. Childhood is the golden period for mental hygiene. A good Kinderstube has and will prevent many neuroses. It is a pity the mothers of to-day prefer the typewriter to the sewing machine.

"Spare Freud and save the child," says Professor Kelly, University of California. Uncritical parents made mess enough with projection of their "knowledge" about Freudian "child psychology" to their innocent victims. A good paediatrician helps in most cases much more than a prejudiced, uncritical child psychologist. Here are some views from the last mental health congress in Toronto. Doctor Hilde Bruch (child psychiatrist at Columbia University College of Physicians and Surgeons): "The time has come to leave mother and child alone without the interference of 'child psychology.'" Doctor Gerald Caplan (Harvard School of Public Health): "We are beginning to realize that there are no rigid prescriptions for successful personality development." Kenneth E. Priestley (Professor of Education, University of Hong Kong): "Parents might be better employed playing with their children in the backyard than attending lectures by a psychiatrist."

And now to the adults. Here too Freud has the same dogmatic explanation: "Sexuelle Triebe". He does not want to search for and to see other motives which make man what he is. Starting with the "Case of Dora" (typical mental masturbation) he generalizes, and looks everywhere for sex only. He sticks to his "mushrooms," he can't rise to higher motives. Even men, we are proud of, are dragged down by Freud and his followers to the "musty, dank recesses." Goethe: sexually weak, a "decidedly feminine genius." Dostoyevsky: Oedipus complex. Shakespeare: oedipus and sadomasochistic complexes, just a "homosexual misogynist" (Doctor Helene Stourzh-Anderle: "Sexuelle Konstitution," Vienna, 1955). An unclean endeavour to fit the manifold nuances of individual differences into a stereotyped Procrustean bed! Probing an author's complexes (especially if one is prejudiced) may give some "psychiatric" enjoyment, but never the aesthetic enjoyment of his work of art. Nor does knowledge of the personality of an author enable one to enjoy better his works. Psychopathology gets us nowhere in the appreciation of aesthetic values.

We are badly in need again of fresh air and clean, unsophisticated, undogmatic thought. To read, for instance, the chapter "Psychotherapy in General Practice" by D. R. MacCalman, Professor of Mental Health, Aberdeen University (in Dunlop's "Textbook of Medical Treatment") will serve the medical student and the physician in practice better than a detailed study of Freud's works. "Science has been seriously retarded by the study of what is not worth knowing" (Goethe).

With satisfaction I noticed that our local psychiatrists (R. J. Weil and F. A. Dunsworth: "What is Psychotherapy?": J. F. Nicholson: "The Treatment of Anxiety States in General Practice") did not even mention the psycho-analytical theories in particular. Psycho-analysis is only a small, specialized part of psychotherapy, applicable to a very few cases. But there are still psychiatrists with a dimmed vision, to whom the "revelations" of their "Great Master" are "sancta dicta." Listen to them:

"Freud too gave us a Rosetta Stone." (This stone, now in the British Museum, was found on the banks of the Nile, near Rosetta, and starting with its discovery as a basis, scholars were gradually enabled to unveil the meaning of nearly all Egyptian inscriptions), "which was like letting sunlight stream into the dark chambers of the mind, hitherto almost impervious to understanding" (Norman Viner, Montreal, in Canadian Medical Association Journal, August, 1951). And he adds: "Freudian demonstrations of hidden motivations, of rationalizations. . .has shown the world our common human nature. . .Mankind has been benefited. To Freud is the eternal credit."

Again, listen to Sir David Henderson (Professor of Psychiatry, Edinburgh University): "The ingenious technique of psycho-analysis for the treatment of psychoneurotic states broadened out into a system of philosophy and psychology which has received universal recognition. Whether Freud has done more than any other man since Aristotle might rise considerable argument, but he certainly infused an interest and a stimulus into psychiatry and philosophy which still persist. Our dreams, our words, our acts mean something, and even the weird and bizarre symptomatology of nervous and mental disorders which baffled our understanding for so long can be interpreted and understood. Freud brought us nearer to the core of things." (B.M.J. April 17, 1954.)

And there is still, of course, Ernest Jones, the "Last Mohican" of Freud's personal circle. In his "The Life and Work of Sigmund Freud" he is beginning to "over-Boswell" even Boswell. . . . And the curious thing is that using the very orthodox method of his beloved Master he analyses Freud's life minutely and reveals to us "the missing link" for the understanding of Freud's way of thinking. Freud himself was a neurotic, sickly oversensitive, with an Oedipus complex, and a diminished sexual potency.

I do not deny Freud's contribution to the art of medicine in some aspects, e.g. his formulation of the "Verdrangung" (repression), which was of great value, and a stimulus and a help for Adler and Jung. But we should search and look for still more causes and motives which make us what we are. Finally, I want to mention that it was not Freud who first discovered the depths of the unconscious. St. Augustine, Bishop of Hippo, knew about the "unconscious impulses" (*irrationabiles motus*) 1500 years before Freud.

Individual Psychology (Adler)

Thrust for power and authority ("*Geltungstrieb*") is the cardinal cause of most neuroses, says Adler. He invents a few valuable definitions to explain his theory.

1. There is an "organ inferiority" ("*Organminderwertigkeit*"), congenitally, or otherwise subnormal, e.g. hunch back, clubfoot, etc. Result: feeling of being inferior.

2. A child can be bodily normal, but it can be made mentally inferior by constantly telling to it that it is ugly, weak, bad. Girls particularly feel this often, because they were already a disappointment to the parents when born, "Pity, its a girl!"

3. Bad social conditions, poverty, make children often "inferior," "insignificant."

This "inferiority complex" is the cause of the "Geltungstrieb." Some outlet, some kind of compensation is badly needed now, and that is Adler's "Arrangement."

A boy feels well and happy,—but then a new baby arrives. All the attention of the parents, all the care and love shifts from the boy to the baby-brother. The boy feels himself neglected, insignificant. . . . How can he regain attention? He decides to set fire to Munich's "Frauenkirche". . . . or should he better kill the cardinal? Then all people, including the parents, will talk about him, he will be the centre of attention again.

A man with an inferiority complex, a miserable creature outside his home and at work, gets his "compensation" within his family. Here he plays the role of the "big man" terrorizes his wife and children, shows them his "authority" and "superiority."

That is "Arrangement," a compensatory hyper-evaluation and excessive self-affirmation to conceal inferiority feelings.

A post-graduate complains about sleeplessness. To the question, "What would you do if you could sleep?" he gives a typical answer; "I could study the whole day and prepare my thesis." (i.e. the answer is always the opposite of what he really means.) The case history reveals: the parents are rich, ambitious people and they want to see their son on a higher academic level; but he prefers the company of artists and gay parties to books. But now the time has come to finish his thesis—and the insomnia begins. His father sends him for a few months to Italy, to "relax;" and, of course, he sleeps there very well. But on return home the insomnia started again. He returned into his "Arrangement."

Adler made a very valuable contribution to the study of the causes of neurosis, and specially to child psychology. Educationalists have to be familiar with Adler's theory, more than with Freud's mental "pollution." The constant strain of unwilling submission to an over-bearing parent, the fixation of an "inferiority complex," the compensation for this, the outlet in "Arrangement," all these are real factors, producing and explaining many neuroses. But, like Freud, Adler too became dogmatic. To Freud it was the "Sexualtrieb," for Adler the "Minderwertigkeitsgefühl" which explains all neuroses. Every higher motive, every work of art is only (!) an "Arrangement" to compensate for an "inferiority complex". . . . e.g. Byron went to Greece to fight for the independence of that country not because of some other, higher motives; it was an "Arrangement" only, to conceal his "inferiority complex" because of his club-foot.

And the best way to keep man mentally healthy, Adler teaches, is to shift from individuality to community (Gemeinschaft). Adler is a zealous advocate of integration and conformity (among the leaders of the social-democracy he was held in high esteem). Every expose of too much individuality was to Adler suspicious.

Analytical Psychology (Jung)

The disharmony in man's mind between the opposites "extrovert" and "introvert" is the cause of the conflict in the unconscious, and hence the symptoms of neuroses.

Everyone is a mixture of these two opposites, and only the predominance of one of these mechanisms over the other makes the individual what he is, shows his "face."

Its cold outside. The extrovert dresses warmly, not only to avoid a cold, but also because "all people do so." The introvert thinks what all people do does not oblige him to

do the same, and maybe he wants to "harden" himself. The extrovert praises the new tenor, because all people praise him. The introvert is reserved, not because he did not like the singer, but why should he do what all people do. The extrovert adapts himself easily to what is just now practical, profitable. The introvert thinks even if it is good and right at present, maybe I will find my own, better way.

The train in Munich is leaving for the south, for the Alps. A young couple enter the coupee and talk about how they are going to enjoy this trip to Berlin. The only passenger they found in the coupee listens to their lively conversation but is silent. When the train started to move the young people are surprised to hear in the corridor that the train is not going to Berlin, but just in the opposite direction. They begin to accuse the man in their coupee for not telling them this, since he heard and knew that they were going to Berlin. The answer was "But you didn't ask me. . . ." The man was a typical "introvert." All his interest lay in the inner, subjective sphere. As much as possible he wants to avoid contact with the world outside himself. The psychic energy flows inward.

Overemphasis or negligence of one of the two components can make man a neurotic. If a successful, predominantly extrovert, business man attaches himself too much to his business, to the hurry and strain of the world outside, and forgets his introvert half, he can develop neurotic symptoms. If a successful singer accepts more and more contracts and invitations without rest and without giving himself a chance to look "inside," he can suddenly break down with an "hysterical aphonia." Or, if a predominantly introvert is too much absorbed in his inner world, begins to lose contact with the practical world outside and forgets his extrovert half, he can suddenly find himself isolated, "not understood," and he can develop ideas of grandeur, or become an "hysterical alcoholic", etc.

We need the close co-operation of these two characters everywhere in our social and cultural life. The inwardly oriented, more concentrated introverts more often evolve ideas, the extroverts help to realize them. Extrovert professors are better pedagogues, are more popular than introvert professors (the introvert Hegel had often an empty auditorium, the extrovert Treitschke thundered always before an overcrowded auditorium). Two "Fathers of the Church" are a good example. Tertullian, an introvert, made a "sacrificum intellectus," i.e. he excluded, ignored his reason, his intellect, to be able to accept the irrationality of the theological postulates he wanted to believe in ("I believe *because* it is absurd"). Origenes, an extrovert, made a "sacrificum phalli," i.e. he sacrificed his penis, an outward object, which was very much a hindrance to concentration on his theological work. Again, the two great reformers, Luther and Zwingli. Luther, an extrovert: "Das ist der Leib und das Blut Christi." Zwingli, an introvert: "Das ist *geistig* der Leib und das Blut Christi" (outward and inward concepts).

In Hindu thought the ideal is the unfolding of inner possibilities. The defect in the customary Western outlook on life is the problem how much a man can possess; in India the problem is, on how little a man can live. Only when the comforts of the world are paramount the result is apprehension and anxiety. Buddhism, although predominantly introvert, tries to keep up the equilibrium between the two opposites.

The traveller Colin Ross tells us in his book "To-day in India" about a beggar-monk he met on the street in Bangkok, Siam. The beggar stood quietly and silently with a bowl in his hand and passersby put into his bowl some rice, a banana, etc. Ross too gave him a few bananas and was going to put in the bowl a few coins, when the monk thanked him very

politely. "I do not need money, all I need is to have something to eat for this day only." Suddenly Ross realized he had seen this man somewhere. The monk looked at him too, smiled, and said, "Yes, we met before." He was a well-known lawyer from Rangoon, Burma, with whom Ross had recently travelled on a train in a first class coupee. He studied in Europe, knew several languages, was a man of high intellect. . . He permitted Ross to accompany him to his lonely cell in a monastery, where he secluded himself for one year, to meditate, to foster his introvert half. "You, people in Europe, go for one or two years into military service; we too leave our home, our families for one or two years, but to meditate and to strengthen ourselves inwardly. Then we go back again to our jobs, our families, to the world outside."

In order not to lose the contact with their introvert half they go "into the forests" (introspection, meditation) to look for and to find the "cow" (the soul). The Hindu brahmans too have first to marry, raise children, acquire property—then only can they go into the "forests."

Everyone should care very much about both these components of his mind, not to exaggerate the one, not to neglect the other. In our whole life cycle the extrovert component should prevail in the first half of our life ("Venus pandaemos"), in the second half the introvert component ("Venus urania"). Part one and part two of Goethe's "Faust" are the best expression of these two trends in our mind.

The hinterland of the human mind, the unconscious, is for Jung not merely a garbage can to throw into all unpleasant, disagreeable experiences. It is a storehouse full of good and evil. For the most part human aspirations, affections and fears are just what they seem to be, not merely "sublimation." And to Freud's: "Religion is usually a form of neurosis; God is a projection of the Father image," Jung replies, "Religion is a deeply and universally felt human need, not a neurosis." To Freud's dogma, "The infantile parricide-and-incest wish (Oedipus complex) is of importance to all human beings," Jung sarcastically remarks, "The brain is viewed as an appendage of the genital glands. . ." "A person is only half understood when one knows how everything in him came about. Only a dead man can be explained in terms of the past. . ." "Life is not made of yesterday only." Freud's and Adler's approaches to the mysteries of the human mind Jung calls "psychology without psyche."

(To talk about Jung's "collective unconscious" about the "archetypes" about the meaning of the symbols, and about his interpretation of dreams, paintings and drawings would be beyond the scope of this article.)

Conclusion. The causes of neuroses are—

Freud: repressed sexual drives,

Adler: conflict between inferiority feelings and drives for power,

Jung: disharmony between the extrovert and introvert components.

The methods to combat the neuroses are—

Freud: struggle against the inner enemy,

Adler: struggle against the outer enemy,

Jung: peace between the extrovert and introvert components.

Second Congress

World Confederation for Physical Therapy

New York City, June 17-23, 1956

The Canadian Physiotherapy Association is proud indeed to participate in this coming event of international significance. We would like to extend an invitation to members of our allied professions to be present at this most important Congress. An interesting programme has been developed around the theme "Health, a Strong Force for World Understanding—The Role of the Physical Therapist".

The Inaugural meeting of the World Confederation for Physical Therapists was held in Copenhagen, Denmark, in 1951. Plans were then laid for the first World Congress which took place in London, England in 1953. This was a most successful occasion when approximately 1,750 physiotherapists, doctors and members of other professions from 25 countries met and discussed their mutual problems. The lectures, which were delivered by many prominent medical authorities, proved to be informative and stimulating to all.

June 17, 1956 will mark the opening of the Second Congress at the Hotel Statler, New York City. The American Physical Therapy Association will be host to the many delegates who will travel from the four corners of the earth to attend. Canada, as an executive member of the World Confederation, has taken an active part in the planning of the programme and is holding a reception for delegates at the Canadian Club in New York City.

There will be technical and scientific exhibits, panel discussions, films and tours to local hospitals. Short refresher courses before and after Congress are being arranged. There will be an interesting calendar of social events plus all that fabulous New York itself always offers the tourists.

The scientific programme will include presentations on:—

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| Anterior Poliomyelitis— | The role of the physical therapist in the evaluation studies of the polio vaccine field trials. |
| Cerebral Palsy— | Similarities and differences in methods of treatment. |
| Prosthetics— | Recent research, prescription, fitting and training. |
| Bracing & Adaptive Devices— | for neuromuscular disorders. |
| Evaluation Procedures— | Physical achievement, manual and electrical muscle tests, joint measurements. |
| Underwater Exercise | Physical principles and therapeutic use. |
| Posture Symposium | |
| Ultrasonics | |
| Physiological Basis for Heat | |
| Home and Convalescent Programmes— | including the severely disabled. |
| Antenatal and Postnatal Exercise | |
| The Physical Therapist— | his education and responsibilities; his relationships to his fellow-workers and the community. |
| Seminar on Education. | |

We would like to feel that members of your profession and those who are actively engaged in the rehabilitation of the handicapped will plan to come to New York. You will be most welcome. We must remember that discussions of a scientific nature on a world basis such as this are further steps towards the international peace we all hope to attain.

Any further details may be obtained by writing to our Head Office Canadian Physiotherapy Association, 8 Bedford Road, Toronto, Ontario.

Society Meetings

CAPE BRETON MEDICAL SOCIETY

Doctor C. E. Kinley, Associate Professor of Surgery, Dalhousie University Medical School, was the guest speaker at the March meeting, held on the 8th, of the Cape Breton Medical Society, at the Sydney City Hospital. This lecture was under the auspices of the Dalhousie Post-Graduate Committee. The speaker discussed "The Diagnosis and Management of Small Bowel Obstruction." Thanks were extended to Doctor Kinley by Doctor Eric Macdonald.

Miss Joan Hudson, Executive Secretary Dalhousie Post-Graduate Committee, discussed with the members present, the policies for the carrying out of the proposed Regional Course of Post-Graduate Lectures. A Committee was formed, with Doctor J. A. McDonald of Glace Bay as chairman, and Doctor J. C. Young of Sydney, Doctor Louis Kristal of New Waterford and Doctor T. J. McKeough of Sydney Mines, to meet with Miss Hudson for the purpose of a more detailed discussion and finalization of plans for the Spring Course.

H. R. CORBETT,
Secretary-Treasurer.

TWO-DAY SYMPOSIUM IN DERMATOLOGY
April 9th and 10th, 1956

Dermatological Quiz:

What is the modern treatment of infantile eczemas?

* * *

In what common dermatoses may histological examination confirm the diagnosis? What is the best technique for taking skin biopsies?

* * *

What is the most reliable treatment of psoriasis? What part may the Rheumatologist play in its management? And the Psychiatrist?

* * *

What results may be expected from Surgical Planing in the treatment of acne scars and other deformities?

* * *

In the light of present knowledge are there any indications for the use of systemic cortisone in the treatment of skin diseases?

* * *

What is the commonest dermatosis of the hands? How should it be treated?

* * *

What should be the approach to the control of pruritis ani?

* * *

What skin disorders may be the first indication of serious systemic disease?

* * *

Most Practitioners are aware of the dangers of the use of topical antibiotics. What are the dangers of the use of topical steroids?

* * *

Which pigmented skin tumors should certainly be removed? And which non-pigmented?

* * *

What are the contra-indications to the use of Selenium Sulphide in the treatment of scalp dandruff?

* * *

These and other questions will be discussed at the Two-Day Symposium in Dermatology to be held April 9th and 10th. If you have any further topics which you would like discussed please get in touch with the Executive Officer, Post-Graduate Committee.

The featured speaker will be Dr. L. P. Ereaux of Montreal, and among those taking part will be Drs. R. C. Dickson, H. I. Goldberg, D. R. S. Howell, J. G. Kaplan, J. F. Nicholson, J. E. Stapleton, W. A. Taylor, G. B. Wiswell and J. F. L. Woodbury.

This course is sponsored by the Post-Graduate Committee of the Faculty of Medicine of Dalhousie University and is designed to assist the general practitioner in the diagnosis and treatment of chronic cases as well as those of recent outbreak.

Candidates are advised to register early as attendance will be limited. Your enquiries or applications may be addressed to the Executive Officer, Post-Graduate Committee, Victoria General Hospital, Halifax, N. S.

Correspondence

Editor, Nova Scotia Medical Bulletin,
Halifax, N. S.

Dear Sir:

I am enclosing a copy of a letter published in the February, 1956 issue of the American Journal of Psychiatry from Dr. L. H. Gahagan, of New York City and addressed to the Editor of that Journal.

It points up one of the situations which has been troubling me a good deal recently and which came to a head a short time ago when I saw a patient who had made a serious suicidal attempt after having had weeks of severe depression in which Chlorpromazine was used as a therapy.

Dr. Gahagan's experience entirely parallels my own and that of the psychiatric group in Halifax. If it is proper and ethical, I would suggest that Dr. Gahagan's letter be published in the Nova Scotia Medical Bulletin accompanied by this covering letter because I do not believe that the uselessness of these drugs (and I might add in our experience here, Meretran as well) in depressions is sufficiently recognized. Undoubtedly tension and anxiety will be considerably relieved by the drugs mentioned here and several others but I think that patients who have a definite depression, need electro-convulsive therapy and are not helped by these drugs and are sometimes made worse.

Yours very truly,
ROBERT O. JONES

Editor, American Journal of Psychiatry:
Sir:

I wish to raise the question whether the glowing reports and unbridled publicity about the new "wonder drugs", especially reserpine and chlorpromazine, are not a serious disservice. Repeatedly I run across statements to the effect that many state hospitals have almost given up electroconvulsive therapy (and insulin therapy) in favor of these new drugs.

I believe it is a fair statement that, despite the state hospital fanfare, these new agents do not as a rule produce the marvelous results in the treatment of private patients, which are so commonly reported from the state hospitals. Specifically, there are private practitioners, such as this writer, who find that these drugs are usually no substitute for electroconvulsive therapy. Reserpine, I believe, is generally of no value in treating depressions, and in fact may make the condition much worse. In the case of chlorpromazine in the treatment of depression, its value seems to me to be that of an adjuvant, which is useful in replacing and potentiating other sedatives, particularly barbiturates.

The main point of this communication is to express the opinion that, because of the publicity about these new drugs, many depressed patients are not receiving proper treatment. I think I can safely say that almost all depressed patients whom I see now have received long and ineffective courses of reserpine or chlorpromazine or both.

LAWRENCE H. GAHAGAN, M.D.,
New York City

Abstracts

Stress and Disease*

Stress and the so-called "diseases of adaptation", caused principally by an imperfect adjustment to stress, play an especially prominent role in geriatrics. The pathogenic actions of exposure to stress tend to be cumulative and become most evident during the later years of life. Both the cause and the treatment of stress diseases are essentially nonspecific.

Striking progress has been made in elucidation of the role of the anterior pituitary and adrenal cortex in resistance to stress and in the genesis of the mesenchymal diseases. A basic tenet of the stress-disease concept is that under the influence of various types of exposure, the adrenal cortex produces two kinds of corticoids which regulate mesenchymal reactions: (1) the cortisone type, consisting of those corticoids which inhibit inflammation, cause lymphatic involution, and induce catabolism of the body as a whole; (2) the desoxycorticosterone type, consisting of those corticoids which appease all these effects. Recently it has been demonstrated that a new corticoid, aldosterone, antagonizes cortisone-like compounds. Aldosterone has a close chemical relationship to desoxycorticosterone. Experiments have shown that the many nonspecific responses of individual target organs are closely integrated and represent part of a single biologic response, called the general adaptation syndrome. These investigations make it evident that the stress pattern of reaction plays an integral part in the most varied physiologic, pathologic, and pharmacologic phenomena. The organism responds in a stereotypical manner to widely different factors such as infections, intoxications, trauma, nervous strain, heat, cold, muscular fatigue, and X-ray irradiation. The specific actions of all these agents are quite different. Their only common feature is that they place the body in a state of systemic stress. The conclusion is that the stereotypical response, which is superimposed upon all specific effects, represents the somatic manifestations of nonspecific stress. The definition of the term "stress" corresponds to the biologic equivalent of "stress" in physics: inanimate matter under pressure and tension.

As an example of the possible manifestations of the stress response, a case is presented showing adrenocortical enlargement with histologic signs of hyperactivity; thymicolymphatic involution with certain concomitant changes in the blood count such as eosinopenia, lymphopenia, polynucleosis, and gastrointestinal ulcers. Although all the organs of the body in this state show involutational or degenerative changes, the adrenal cortex actually seems to flourish on stress. The alarm reaction of the adrenal cortex is the first stage of a much more prolonged adaptation syndrome, which is comprised of three distinct stages: (1) alarm reaction, in which adaptation has not yet been required; (2) stage of resistance, in which adaptation is optimal; and (3) stage of exhaustion, in which the acquired adaptation is lost again. Among many surgical interventions tried, only hypophysectomy prevented adrenal response during the alarm reaction. It was concluded that stress stimulates the cortex through an adrenocorticotropic hormone, now known as ACTH.

The somatotropic, or growth hormone, can combat catabolism and susceptibility to infections. The activity of the stress hormones depends largely upon a variety of conditioning factors, such as heredity, age, previous exposure to stress and the nutritional state. The fundamental reaction pattern to topical stressors is a local adaptation syndrome with inflammation—to systemic stressors, the general adaptation syndrome. Various modifications of these two basic responses constitute the basic physiologic response to stress.

Geriatrics: June, 1955—H. Selye.

Blood Groups and the Clinician*

Until quite recently it seemed to matter little to anyone whether he belonged to Group A, B, AB or O unless he had just received an incompatible transfusion. Haemolytic disease of the newborn may be due to ABO incompatibility, but this is rare.

As late as 1950, workers could observe no evidence of the susceptibility of any blood group to any particular disease, although this was suspected to be the true state of affairs. This suspicion was justified on theoretical grounds, since a balanced polymorphism of the kind exemplified by the blood groups needs such selective advantages if it is to be maintained.

More recently, Aird and his colleagues showed that persons in group A seemed to be significantly more liable to carcinoma of the stomach than those in group O. In turn, bearers of group O blood were appreciably more prone to peptic ulcer than those of other groups. Pike and Dickens brought forward evidence to suggest that this was also true of toxemia of pregnancy. No relation was found between the ABO groups and the incidence of carcinoma of the colon, rectum, bronchus and breast.

From the genetic point of view, the mechanisms of selective advantage and disadvantage are still obscure. Carcinoma of the stomach, for example, usually attacks those who are at, or near the end of reproductive life, so that its effect on the A frequency of coming generations must be very small. Probably it is only one of the many factors that act in this way.

Treatment of Allergic Symptoms *

Although presently available antihistamines are reasonably efficient, complete relief of symptoms does not always follow their administration, and numerous side effects, particularly somnolence, impair their usefulness in many patients. The new antihistamine, carbinoxamine maleate (Clistin) was developed with the aim of overcoming these objections. This antihistamine is comparable in clinical effectiveness and incidence of side effects with two previously established antihistamine compounds—bromodiphenhydramine hydrochloride and triplennamine hydrochloride.

Of the 70 patients in the series, 41 had allergic rhinit, 26 allergic rhinitis and asthma, and three, allergic rhinitis and eczema. The three drugs produced the following respective reductions in symptoms: triplennamine hydrochloride, 23.3 per cent; carbinoxamine maleate, 18.9 per cent; and bromodiphenhydramine hydrochloride, 14.3 per cent.

Subjective relief as reported by patients showed the following order of drug effectiveness: triplennamine hydrochloride, bromodiphenhydramine and carbinoxamine maleate. It is noteworthy that the order of producing subjective relief is the same as the frequency of producing somnolence. Sedation may make patients feel better than their symptom count indicates them to be.

Carbinoxamine maleate produced the fewest complaints of drowsiness as well as the lowest incidence of all side effects of the three antihistamines. Somnolence, in particular, was encountered only half as often. This suggests that larger doses than the recommended 4 mg. could be used and undoubtedly produce greater symptom control without raising side-effects above an acceptable level.

Annals of Allergy: May-June, 1955—W. R. MacLaren, W. C. Bruff and B. C. Eisenberg.

*From Medical Abstracts, September, 1955.

NOTICE RE D. V. A. FEES

Effective January 1st, 1956—Office—Day Visits may be charged for at the rate of \$3.00 per visit. If specially called at night between 8.00 p.m. and 8.00 a.m., Sunday and Emergency visits, office calls may be charged for at the rate of \$3.50.

The rate for House—Day Visits—has been increased to \$4.00 and for night, Sunday and Emergency visits the charge has been increased to \$5.50 per visit.

Note: We regret that in the December, 1955 issue the fee for Sunday and Emergency visits (House) the fee was put down as \$4.50, and it should have been \$5.50.

GROUP DISABILITY INSURANCE PLAN

At a meeting of the Executive of The Medical Society of Nova Scotia a Group Disability Insurance Plan submitted to members of The Society by Blaker, Hearns and Company of Montreal was officially approved.

Any members desirous of subscribing to this plan are asked to complete the application forms which they have received and return the same to Blaker, Hearns and Company, Montreal.

Obituary

MONSON JAMES WARDROPE, M.D., C.M., F.A.C.S.

Dr. Monson James Wardrope died at All Saints' Hospital in Springhill on February 19, 1956 at the age of 86. Dr. Wardrope was born at Milford in 1869. He attended Business College in Halifax and later studied Medicine at the Halifax Medical College and was graduated M.D., C.M. from Dalhousie University in 1901. He interned at the Victoria General Hospital for one year and after a short period of general practice at New Campbellton, C. B. came to Springhill where he entered into partnership with Dr. R. L. Murray in 1903. He had a very busy general practice in Springhill and vicinity for many years experiencing the hardships of the horse and buggy days. He soon became interested in surgery and became recognized as one of the leading surgeons in the County and in 1928 was granted the degree of Fellow of the American College of Surgeons. In 1935, Dr. Wardrope retired from Colliery practice and handed over his work to his assistant, Dr. Harold L. Simpson. Dr. Wardrope kept an office until a few years ago and carried on a much restricted practice. In 1948, he was made an honorary member of The Medical Society of Nova Scotia and in 1949, was made a Senior member of The Canadian Medical Association. During his fifty years in Springhill he was interested in all Community affairs. He was Chairman of the Board of Directors of the All Saints Cottage Hospital for many years. He was a Past-President of the Board of Trade and active in several fraternal organizations. He was an unsuccessful candidate for the Provincial House of Assembly. He was a member of St. Andrew's United Church. Few men have been held in such high regard in any community as Dr. Wardrope was in the town of Springhill. He is survived by his wife, the former Kathleen Mumford of Dartmouth to whom the Bulletin extends sincere sympathy. Dr. Wardrope's only son James died in 1935.

LAWRENCE W. BRAINE, M.D., C.M.

Dr. Lawrence Bernard Wilfred Braine, one of the oldest General Practitioners of the Province, passed away suddenly on February 9th. Laurie, as he was known to us who knew him well was about his usual business of caring for the sick when the call suddenly came for him. It would be as he wished it. Always devoted to his work, he never spared himself and many homes in Annapolis Royal (where he practised for 30 years) and elsewhere, will mourn the passing of this kindly, gracious Doctor.

He was born in Halifax on November 16th, 1879, educated at Dalhousie University, receiving the degree of M.D., C.M. at the age of 20. He began his practice of Medicine at Glen Margaret, (from which place he died), later going to Chester, from which place he enlisted in the first world war in the R.A.M.C. and served as medical officer of the 6th Middlesex on the Somme. Toward the end of the war he was stationed at a hospital on the Island of Corfu in the Mediterranean.

At the close of the war he went to Annapolis Royal where he practised for 30 years. In 1948 he returned to his "first love", Glen Margaret with the

idea of retiring, where instead, he carried on an active practise for 7 or 8 years.

He was a member of the United Church of Canada and an Elder in the Halifax Presbytery. He was a Past Master of the Masonic Order and served as secretary of Eureka Chapter No. 5 for 30 years. He was also an Oddfellow and a member of the Canadian Order of Forresters. He was an active member of the Canadian Legion and a member of The Medical Society of Nova Scotia.

Surviving besides his wife, the former Jessie Graham of Bear River, are three daughters, Mrs. John S. Woods of St. John's, Newfoundland, Mrs. Charles Clarke of Tatamagouche, Mrs. Ralph Johnson, Hartford, Conn. and one son, Rev. Robert W. Braine, minister of St. John's United Church, Halifax. eleven grand children and three great grand children. A sister and brother also survive, Miss Catherine Braine, Moose Jaw, and Gordon Braine, Regina.

Interment was in Glen Margaret Cemetery. The large attendance at the funeral bore testimony to the high esteem in which Dr. Braine was held in Church, medical and community life.

WILSEY HATFIELD WHITE

Dr. Wilsey Hatfield White died in November, 1955 at Sussex, N. B. where he practised for fifty years. He was in his ninety-sixth year. He was graduated from the Med. Chir. College, Philadelphia in 1886. He also graduated in Dentistry in Chicago and for some time practised both professions. He practised for a few years in Dartmouth, later moving to St. Stephen, N. B. and to Sussex in 1891.

The Annual Meeting

The 103rd Annual Meeting of The Medical Society of Nova Scotia will be held in Halifax at the Nova Scotian Hotel.

The Executive Meetings will be held on Tuesday, September 4th, and the General Meetings will be held on Wednesday, Thursday and Friday, September 5th, 6th and 7th, 1956.

The Chairman of the Housing Committee is Doctor A. W. Titus, 32 Connaught Avenue, Halifax, who will look after all requests for hotel accommodation for the meeting.