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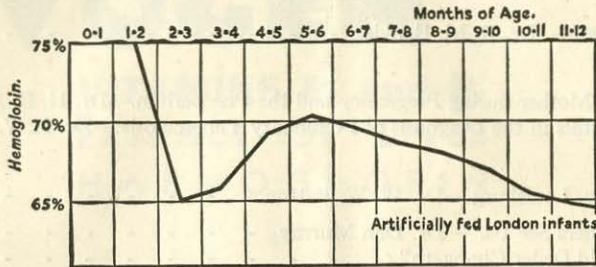
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2. During this period the infant's diet contains very little iron—1.44 mg. per day from the average bottle formulae of 20 ounces, or possibly 1.7 mg. per day from 28 ounces of breast milk. (Holt.³)

For these reasons, and also because of the low hemoglobin values so frequent among pregnant and nursing mothers (Coons,⁴ Galloway⁵), the pediatric trend is constantly toward the addition of iron-containing foods at an earlier age, as early as the third or fourth month. (Blatt,⁶ Glazier,⁷ Lynch⁸).

The Choice of the Iron-Containing Food

1. Many foods reputed to be high in iron actually add very few milligrams to the diet because much of the iron is lost in cooking or because the amount fed is necessarily small or because the food has a high percentage of water. Strained spinach, for instance, contains only 1 to 1.4 mg. of iron per 100 gm. (Bridges.⁹)
2. To be effective, food iron should be in soluble form. Some foods fairly high in total iron are low in soluble iron. (Summerfeldt.¹⁰)
3. Pablum is high both in total iron (30 mg. per 100 gm.) and soluble iron (7.8 mg. per 100 gm.) and can be fed in significant amounts without digestive upsets as early as the third month, before the initial store of iron in the liver is depleted. Pablum also forms an iron-valuable addition to the diet of pregnant and nursing mothers.

Pablum (Mead's Cereal thoroughly cooked and dried) consists of wheatmeal, oatmeal, cornmeal, wheat embryo, brewers' yeast, alfalfa leaf, beef bone, iron salt and sodium chloride.

¹⁻¹⁰ Bibliography on request.

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83rd Annual Meeting of the Medical Society of Nova Scotia

R. M. BENVIE, M.D.

ALL the higher forms of life have their beginnings in the amalgamation of two special and specially prepared cells—the germ cells. Early in foetal life these cells are set apart for the express purpose of keeping the species alive.

All cells are made up of a deeply staining central vesicle, the nucleus, and a clearer surrounding field, the cytoplasm.

At cell division, the nucleus is seen to be made up of a tangled mass of small beaded rods—the chromosomes. Each chromosome contains a large number of factors or characteristics known as genes, and it is on these genes that ones natural inheritance depends. They determine whether one will be tall, or short, blue-eyed or black, whether he will have one talent, two talents or five! Etc.

The chromosomes are in pairs, each of the pair carrying similar genes. Thus there are two chromosomes containing genes for the formation of the eyes, the heart, the cord, the brain, etc. So that each single germ cell has sufficient genes to produce two complete individuals!

The human germ cell contains 48 chromosomes—24 pairs. If two such cells were to unite, the resulting cell would contain 96, but before union takes place, the chromosomes separate into two colonies, 24 in each. Twenty-four are thrown out and the remaining twenty-four join with the same number of the opposite sex to form the beginning of a new individual.

The chromosomes again arrange in similar pairs and as growth begins they divide longitudinally. One half of each goes into the new cells, so that each cell of the body contains some portions of the original chromosomes.

Although there are twenty-four pairs of chromosomes in every human cell, it is found that in one pair in the male, one chromosome is very small and primitive, but in the female, there are 24 fully developed pairs. This unmatched pair is always present in the male, so must be the sex chromosomes. The fully developed sex chromosome is designated "X", the smaller "Y". So, in the female there are two "X" chromosomes. When reduction takes place in the male germ cell, should the "X" chromosome be extruded, the remaining "Y" will unite with the female cell, which always will contain an "X" and the result will be a male, but if the "Y" is thrown out, then the "X" remains and uniting with the female "X" the new cell contains two "X" chromosomes and the offspring will be a female.

A female child therefore receives more genes from the father than does a male. Yet the male always gets a fully developed "X" from the mother and thus has more maternal than paternal genes. The mother, nevertheless got an "X" from her father, so the male element of the line is still represented in the new male offspring.

Certain defects are at times due to the absence of the second "X" chromosome or to the presence of the "Y". A well known example is Haemophilia. Genes which cause normal coagulation of the blood, in these families, are contained in the sex chromosomes. These genes are not in the "Y" but are present in the "X", hence the males only have the disease. Colour blindness is also sex linked and at times some nervous diseases also.

We are double in respect to our genes. A complete set comes from one's father, and a complete set from one's mother, so that if one contributes defects, it is overcome by a normal gene from the other parent.

Normal genes are generally dominant, although not always. If it were not so, the race would rapidly deteriorate. When two similar genes are defective, the defect is produced in the offspring.

If the colour genes are both defective then the product is an albino.

The genes may contain defects that do not show in the parent although they may have shown in the ancestors. Thus the parents may be superior mentally yet the children by a new combination of genes be quite ordinary. The number of superior children, however, from superior parents will be much greater than from average parents. In the same way, superior children may be produced by average parents by fortunate arrangement of the genes.

As these genes have been handed down for countless generations it is not to be wondered at, that surprising results are frequently obtained. Qualities dormant for many years may again appear.

Feeble-mindedness may or may not be a dominant characteristic, yet if one in a family is feeble-minded or mentally defective, then the chromosomes of the others, brothers and sisters, contain the genes of feeble-mindedness. They are carriers of this defect.

No normal individual will marry another who is mentally defective, but these unfortunates are a fertile source of illegitimates, all of whom will be at least carriers. As the mentally defectives generally mate with their own kind, the great mass of their children getting double doses of this defect, must also be mentally defective.

A few years ago, statistics showed that one-third of one percent of the population was feeble-minded. The approximate number of normal individuals, who are carriers is ten percent. It is found that eleven percent of the feeble-minded of one generation comes from the matings of the feeble-minded of the previous generation, the remaining eighty-nine percent coming from the carriers, so that by sterilizing the feeble-minded of this generation that 11% is at one stroke wiped out. No feeble-minded could then mate with normal individuals, so no new carriers would be produced and as years go by, the number of such defectives would become less and less, so that such a move would be distinctly worth the effort.

Canada has over 37,000 mental cases supported by the state at an expense of \$11,500,000. per year.

The Care of the Mother During Pregnancy and the Puerperium

By H. B. ATLEE.

WHEN I was asked to give this paper I was told that it was to be aimed at a lowering of the maternal mortality rate in Nova Scotia. The first question that arose out of such a commission was: Can the maternal mortality rate of Nova Scotia be lowered? This rate per thousand live births has not varied greatly over the last fifteen years and is something more than five and a half. In attempting to answer the question whether or not it can be reduced I have compared it with the rates at the Grace Maternity Hospital and at the Dalhousie Public Health Centre Maternity Clinic. If it is possible to obtain a lower rate in these two clinics it should also be possible to achieve a lower rate for the province at large.

In order to make such a comparison it is necessary first to be sure that one is comparing the same things. On looking into the matter I find that the maternal mortality rate of 5.5 per thousand which I have mentioned above as the general rate for Nova Scotia contains two items—namely, death from abortion and ectopic gestation—which do not come into the rates I will give for the Grace Hospital or the Health Centre. Removing these from the provincial rates the latter should read for purposes of comparison about 5 per thousand. Have we been able to do any better at our two clinics here?

I will deal with the Health Centre Maternity Clinic first since it approximates more nearly the conditions under which general practice is conducted, most of the women being delivered in their homes—and in the very poorest homes in the city. 1500 cases have been delivered on this service with 4 obstetrical ones of which was an anesthetic death during a Caesarian section. This works out at about 2.7 deaths per 1000 live births. To get a comparable figure from the Grace Maternity Hospital I have gone back for two years. Out of 1304 live births there were 4 obstetrical deaths, which makes a gross rate of 3 per thousand. But since one of these was admitted moribund, having had no pre-natal care, and died shortly after admission, she should not be fairly included as a Grace Hospital death. This gives the Grace a rate of 2.3 per thousand live births.

It has been possible then in these two clinics to reduce the maternal mortality rate in one case to almost half and in the other to less than half of the general provincial rate. But when one enquires further into these deaths an even more favorable appearance emerges. Of the deaths occurring at the Grace Hospital in only two had there been pre-natal care: so that, in our cases with pre-natal care there was a death rate of only 1.5 per 1000, less than a third of the general provincial rate. Of the deaths occurring in the Health Centre Clinic, one case came on her first visit with severe toxic symptoms, was advised hospitalization, but refused all treatment and was finally admitted to hospital moribund. So that of the cases in the Health Centre Clinic who had pre-natal

*Delivered before the Annual Dalhousie Refresher Course, Halifax, N. S., August 31st, 1936.

care the mortality rate was only 2 per thousand, or two-fifths of the general provincial rate.

One other point and then I shall finish with statistics: Of all these deaths in almost three thousand cases only one was due to puerperal sepsis. If our rates had corresponded to the general provincial rate from sepsis we should have had six deaths in the number of cases under review. The greatest single cause of death in our clinics has been toxemia. Apart from the one death from sepsis our other deaths were in a sense accidental, one embolism on the 8th. day, an anesthetic death during a Caesarian section, and hemorrhage following a ruptured uterus in a very enemic patient. Of our toxic patients only one had pre-natal care.

I think then that we can answer the question: Can the maternal mortality rate in Nova Scotia be reduced in the affirmative. We can go further and say that, with proper pre-natal and intra-natal care it is possible to cut the maternal mortality at least in half, and I am not so sure that we can't cut it down even more than that. The remainder of this paper will concern itself with the type and amount of pre-natal care necessary to bring this about.

While, later on, I intend to deal with the four great causes of maternal mortality in specific detail, I want to suggest first what should be the minimum amount of ante-natal care every pregnant woman must have in order to lower the death rate appreciably.

- (1) She should be seen once every month from as early in pregnancy as possible, and every fortnight for the last 6 weeks. On these visits her blood pressure and weight should be recorded and a sample of urine obtained for gross and microscopic examination.
- (2) If she has any septic teeth, or if she has infected tonsils these should be removed as early as possible, since there is a growing body of statistics to show that infected teeth and tonsils play a very real part in keeping up the mortality rate.
- (3) Any vaginal discharge should be investigated and treated.
- (4) A history of miscarriage or premature birth should be gone into, a Wasserman test done and if it is positive anti-syphilitic treatment should be instituted.
- (5) At least one physical examination should be made, preferably at about the 36th week to determine (1) the presentation (2) the pelvic measurements and (3) the relative size of presenting fetal part to the pelvic canal.

There are certain points in these five considerations that I would like to discuss further.

Weight: It is generally accepted today that the woman who gains more than twenty pounds during pregnancy is very much more likely to develop toxemia than the woman whose weight increase is less than that. Within the last year I have had four primiparae who gained, despite my plea for a moderation of diet, more than that amount: three of them developed albumin in the urine during the last three weeks of pregnancy, two with raised blood pressures. Some men go so far as to counsel their patients to so diet themselves that they shall not gain any weight, but there does not seem to be need for such a drastic curtailment.

Vaginal discharges. A considerable number of women, especially multiparae, who have not previously noticed a vaginal discharge become aware of

one during pregnancy. In some cases this discharge proves on investigation to be nothing more than an excess of the normal cervico-vaginal secretion. But if it is at all profuse, or if it is definitely yellow in color, it is pathological. In investigating such a discharge one first of all should view the cervix through a speculum. If an erosion is present it should be treated, either with swab applications to the cervical canal, or better still office cauterization of the canal and the erosion. I have done this on several occasions with no damage to the pregnancy. In all cases a smear should be taken and examined for the gonococcus. If there is no cervical erosion and the discharge seems to arise entirely in the vagina, a direct smear should be examined for trichomonas, which anyone can recognize under the low power. While I have not found trichomonas infestation common in Nova Scotia, there is no doubt that it is common on the continent and will probably be found more and more here. It, also should be treated.

The physical examination: This is something that the tyro faces with considerable self-doubt, and which may cause even the expert humiliating experiences. From this standpoint female pelvises fall into three groups (1) Pelvises so large or so small that anyone can decide that a living baby can or can not be born through them. (2) Doubtful pelvises through which after careful consideration it can be said that a living baby is likely to come. (3) Doubtful pelvises through which not even the most expert can predict the passage of a living baby without the aid of X-rays. But despite the difficulties that may arise in groups (2) and (3), and the mistakes in judgment that may be made, I don't think anyone is justified in these modern days in practising obstetrics unless he makes a determined attempt to gauge the possibilities of a live passenger coming through the birth canal. It is not enough merely to measure the female pelvis. Pelvic measurements are of real value only in determining those cases that come into group (1). We know that if the pelvic measurements are very large any baby can come through and that if they are very small no baby can come through alive. In the other group of cases which constitute the vast majority the pelvic measurements merely tell us that we are dealing with an approximately normal pelvis. In order to determine whether or not we are going to obtain a live passenger it is necessary to compare presenting part to pelvic brim. If there is any overlapping of the pelvic brim that cannot be overcome by a bimanual attempt to push the head into the pelvis, an X-ray examination should be undertaken, and the plates read by a radiologist who knows how to evaluate a possible disproportion. While it is true that at the present time X-ray diagnosis of disproportion is still in a process of being perfected, I believe that soon it will be as reprehensible to let a doubtful case go into labor without employing it, as it now is to operate for stone in the kidney without an X-ray diagnosis.

From the facts obtained by our physical examination we are now in one of three positions. (1) Where there is no question of disproportion we can let our patient go into labor without worry. (2) Where there is doubt we can hospitalize our patient and give her a trial of labor, doing a Caesarian section when that fails (3) Where there is gross disproportion we can do a Caesarian section at term. I do not include induction of labor before term among these positions for two reasons (1) Because it is a decision for experts (2) Because even the experts are confessing that their decisions are often wrong and are moving towards the trial-of-labor-possible-Caesarian in these doubtful cases

So far I have outlined what I consider to be the minimum ante-natal care a pregnant woman should have. There is a great deal more we can do not only to prevent mortality and morbidity, but actual suffering.

(1) *Care of the breasts.* There is a tendency to forget the breasts. In the savage state when they were tanned and toughened by exposure to sun and air, they could be neglected. But in these days when, covered only by silk, they do not even get the rough friction of the woolies our grandmothers wore, the skin covering the nipples becomes so deprived of its horny, protective layer that it cannot withstand nursing without cracking, which may be so painful as to interrupt lactation, or may lead to abscess formation. In the preparation of the breasts for lactation we have only to imitate nature. If the latter months of pregnancy correspond to our all too short summer the patient can expose the breasts to sunlight and carefully toughen them. In the winter months exposure to a sun lamp will do the same thing, and Dr. MacLellan's article in a recent number of the *Journal of Obstetrics and Gynecology of the British Empire* shows what can be done in this regard. If this is impossible simple rubbing for a longer period each day with a rough Turkish towel will do something to toughen the skin. But to neglect the breasts entirely is to lay the woman open to considerable suffering and perhaps deprive an infant who needs it badly of the life-giving mother's milk.

(2) *The Proper Handling of the Medical Complications of Pregnancy.*

A recent survey in a large obstetrical service in Chicago has shown that the maternal mortality is five times higher in women who have a medical complication than in the normal. It is therefore important that these complications should be given careful consideration. This is especially true of anemia which is a serious and common complication and in which, where the Hemoglobin is below 70% and the R. B. C. below 3,000,000, the death rate is abnormally high. One of our deaths in the Health Centre Clinic was due to post partum hemorrhage in an anemic patient who did not lose enough blood to kill a normal woman. Almost all pregnant women become somewhat anemic in the later months of pregnancy, due to the dilution of the blood by retained fluid, but when the hemoglobin goes below 70% the woman should be given large doses of iron and sun-tanning where possible. Personally I make a practise of doing a hemoglobin estimation in all my private patients about the seventh month. Diabetes is another disease that requires careful consideration. The woman with moderate or severe diabetes may go through pregnancy without any trouble, but may die during labor because the muscular exertion uses up all her scant supply of glycogen causing the development of a rapidly fatal acidosis. Such cases should be the joint problem of the internist and the obstetrician to decide whether or not a Caesarian section should be done. Organic heart disease and tuberculosis may also constitute serious obstetrical complications.

(3) *Diet, Exercise, Clothing and the Bowels.* While these perhaps do not play a very great part in maternal mortality, the modern young mother is more and more seeking advice regarding them. Generally speaking I believe that the less departure the woman makes from her normal routine, unless that routine is unusually unhygienic, the better she will be. For to put a woman on a very special routine may cause her to think too much about her condition and get into an abnormal psychological state.

Diet. There are certain things that the pregnant woman should be sure of getting in her food. These are calcium, iron and the vitamins. If she is

eating a proper diet it is not necessary to administer them separately. To ensure that she does get a proper diet she should drink milk and eat the leafy vegetables and raw fruit. If these form part of the ordinary diet there is nothing more that is needed. In the later months of pregnancy it is as well to cut the amount of protein down, and at all times to make sure that enough water is drunk. I find it hard to get women to drink water: most of them do not seem to like it.

Exercise. This, in effect, means walking, golf or simple calisthenics. Swimming and the more violent exercises may bring on an abortion. In this connection I'd like to say a word about long automobile drives. I have had two women who subsequently had normal pregnancies miscarry at the end of long car journeys.

Clothing. The question that I am most frequently asked with regard to clothing is should a special maternity corset be worn. I leave this entirely to the patient. If she feels the need of support or develops backache I advise her to get a proper corset. If not I tell her to carry on with her usual support. The important thing about clothing is that the woman should wear enough since probably the combination of insufficient clothing and constipation is the greatest single cause of pyelitis, which may be a very serious complication of pregnancy.

Bowels. Most women seem to have trouble with their bowels during pregnancy, and some have a great deal of trouble. It is probably the result of the water retention that occurs. I advise these women to try first of all the effect of taking more fluids, and tell them to aim at eight glasses of water a day. If that doesn't work extra fruit and leafy vegetables may do the trick, particularly if they save the water in which the vegetables are boiled and drink it as a soup while still hot. If that does not work one is forced to use a purgative of some sort, the less drastic the better.

I would like to say a few words now about the four great causes of death from childbirth, namely, infection, toxemia, hemorrhage and abortion, particularly from the standpoint of prevention.

Infection. In advocating the removal of septic teeth and tonsils and the treatment of septic vaginal discharges I have already touched a part of this subject. The treatment of anemia also plays a part in the prevention of infection, since anemic women are more prone to it. Beyond that we can do three things. (1) Advise the woman to avoid catching cold during the later months of pregnancy—this means avoiding large gatherings of people during the months when the common cold is prevalent, and avoiding members of her family who develop a cold. (2) Advise her not to take a tub bath during the last month of pregnancy and (3) during the same month to avoid coitus. Generally speaking however, we can do our best in the prevention of infection by building up woman's bodily resistance to disease.

Toxemia. One half of our deaths in the 2700 cases I have reviewed in our two clinics were due to toxemia. But that improved ante-natal care can lower the mortality in this disease out last year's statistics at the Health Centre Clinic prove. There were 22 cases of toxemia of which 11 were mild, and six severe enough to require hospitalization. As a result of the careful ante-natal treatment instituted there were no deaths, and none developed eclamptic convulsions.

In dealing with toxemia two considerations arise. (1) To prevent the immediate death of the mother from the disease. (2) To prevent if at all possible permanent renal damage. It is not enough to prevent death by eclampsia, we must try to ensure that the woman will not die too soon subsequently from nephritis. For the purposes of discussion we can divide toxemias into two main groups (1) those arising in women who already have kidney damage (2) those arising *de novo* in the present pregnancy.

(1) *Toxemia arising in Women with Kidney Damage.* In this type of case the prognosis to the mother is considerably worse than in the other group, for, although she may get through the pregnancy alive her kidneys will assuredly receive further permanent damage. The earlier the toxemia shows itself the worse the outlook. I believe that cases in this group should be aborted under the following circumstances. (1) Where the woman already has two or more children. (2) Where despite rest, diet and elimination the condition does not improve or gets worse and (3) Where there are no religious objections.

Where the breakdown occurs late in pregnancy one is justified in making considerable effort to continue treatment until the fetus is viable. This brings up the question: At what age is a fetus viable? It is generally stated that a 28 weeks fetus is viable. I do not believe that the 28 weeks fetus of a toxic woman stands any chance of living, since the fetus of a toxic woman is a weak thing at the best. I doubt if one should regard anything under 34 or 35 weeks as likely to live. Certainly to carry this type of patient from say twenty to twenty-eight weeks in the hopes of getting a live baby is folly, and one should either abort at once or carry the case on to a stage of likelier viability.

If it is determined to carry the case on the first thing to do is to put the patient at absolute rest in bed, to restrict the diet drastically and make it salt free, and to give saline purges every morning. If, under such treatment, the symptoms improve the woman may gradually be allowed up and her diet increased. I believe that it is important to put these women under such a regime the moment the toxemia manifests itself since, if one is to get improvement, the earlier the kidneys are given a complete rest the better. For the remainder of the pregnancy the patient should get up late in the morning, keep her diet salt free, take about an hour's rest after lunch, and avoid exertion, chill and constipation. If, despite this treatment, she does not improve, or if, improving on the drastic initial regime, she breaks down again when allowed out of bed and given an increased diet, she should be kept in bed for the remainder of the pregnancy. If, despite continuous rest in bed and diet restriction, she gets worse, the pregnancy should be interrupted unless there is a religious objection.

(2) *Toxemia Arising de novo in the Present Pregnancy.* In comparing this condition with the previous the following points arise (1) It usually presents itself during the later weeks of pregnancy when the fetus is viable, and one can induce labor as soon as it becomes evident that the patient is not improving under treatment. (2) It is more amenable to treatment than the previous condition, if caught at its earliest manifestations. As soon as albumin shows itself in a urine previously free and the blood pressure gets up to 140, the patient should be put to bed on restricted salt-free diet and saline purges, until improvement shows itself. Such a patient, after she is allowed up, should have her urine examined and her blood pressure taken, not less than once a week and preferably every second day. At the first sign of relapse she should go back

to bed again. It is not enough to aim our treatment at preventing eclampsia. We must do everything in our power to prevent permanent kidney damage, and it is pretty well accepted today that a woman who carries two-plus albumin and a blood pressure of over 150 for more than two weeks is likely to be left with such damage.

Where, despite rest in bed, the albumin and blood pressure continue, or where they increase, one can try restriction of the diet to nothing but water and glucose with increased elimination. If this fails after a two days trial, labor should be induced by rupturing the membranes. But I would like to insist on this point: that induction of labor should not be delayed until the woman is hovering on the brink of eclamptic convulsions. If one does delay it may become necessary to do a Caesarian section since she would assuredly develop convulsions during an induced labor. The death rate for Caesarian section in the toxic woman is very high.

Hemorrhage. Generally speaking hemorrhage is a complication of labor rather than of pregnancy. But since it does occur as a complication of pregnancy there are one or two things I should like to say about it. (1) Every woman who bleeds during pregnancy should have her cervix viewed through a speculum to rule out cancer. I have recently had two women in my service at the V. G. Hospital with cancer of the cervix in whom the first symptoms appeared during pregnancy and were disregarded. (2) Every woman who bleeds during the later weeks of pregnancy should be examined to determine if possible whether it is due to abruptio placentae or placenta previa. Since we know that abruptio placentae is usually the manifestation of a toxic state such an examination should include the urine and blood pressure. In all multiparae and most primiparae it is possible to feel a central placenta previa through the cervix which in late pregnancy will admit one or two fingers. Otherwise this condition may be suspected where the lower uterine segment has boggy feel and there is a definite spongy swelling between the examining finger and the presenting part. But I must utter a word of caution with regard to this examination. In a woman bleeding in the late weeks of pregnancy an extensive vaginal examination should not be undertaken unless one is prepared to cope with a sharp and possibly fatal hemorrhage. Failure to comply with this rule has resulted in several deaths. I believe it is a safe rule to take all cases of hemorrhage occurring in the late weeks of pregnancy to hospital and to make the examination there only when everything is prepared to deal with an extra blood loss.

Abortion. I am dealing with this subject here only because it ranks fourth among the causes of maternal mortality in Canada. It presents a two-faced problem (1) Prevention (2) Treatment when it arises.

(1) *Prevention.* I have already mentioned the treatment of syphilis and the giving up of violent exercises in this regard. There are two other types of cases I would like to speak about. (1) Pregnant women who apparently menstruate and (2) Habitual abortion. There is no such thing as menstruation during pregnancy, and women who are apparently menstruating are really threatening to abort. The reason the bleeding occurs regularly is because abortion is more likely to take place at the time when a menstrual period would be due. This type of case, then, should be treated as a threatened abortion with rest in bed and sedatives if necessary. Habitual abortion may present a very difficult problem since, despite treatment abortion continues to occur.

The first thing is to rule out syphilis. In an interval between abortions all septic foci should be cleared up and the woman's general health built up to the highest peak. Once the woman becomes pregnant she should get up late in the morning and lie down for at least an hour after the midday meal. She should eat a diet rich in vitamins, and be given wheat germ oil for vitamin E. She should not go car riding, or take any trips. She should not over-exert herself in any way. If everything else fails it will be necessary to keep her in bed throughout the entire pregnancy.

Treatment of Abortion. Since the two great causes of death in abortion are sepsis and hemorrhage, our treatment must be aimed at the prevention of these. Perhaps one of the reasons why there are so many deaths from abortion, apart from criminal abortion, is because we treat it too lightly. So many women miscarry without any complication whatsoever that we come to look on it as a comparatively simple affair. I believe that we should handle a case of abortion with the same care that we do a full-time labor. If the vulva is not shaved it should at least be carefully cleansed with soap and water and sterile pads applied. If anybody in the house has a cold or a sore throat they should not be allowed near the patient. If she develops a temperature no vaginal examination should be done and no attempt should be made to empty the uterus. If she begins to bleed excessively she should be removed at once to hospital and steps taken to control the hemorrhage, either by sterile packing or the removal of the entire ovum. It is important to stop excessive hemorrhage as soon as possible not only because such hemorrhage may in itself be fatal but because it predisposes gravely to infection. All too often cases are sent into my service at the V. G. Hospital who have been allowed to bleed themselves white at home.

POST PARTUM CARE

I have not the time to go into post-partum care in any great detail, and propose to restrict myself to a few considerations.

(1) *Treatment of Infection.* The most important point I wish to make here is that there is no local treatment for puerperal infection even when a retained piece of placenta or membrane is the cause of it. If there has been a retained fragment it will either pass itself, or can be gone after when the temperature has settled for at least a week. You can tell that there is a retained fragment if, when the temperature has settled, the woman begins to bleed more than she should. But during the period of temperature the uterus should not be entered. If the case is one of simple sapremia, the only treatment required is rest in bed with perhaps heat to the abdomen. If it is a severe sapremia or a frank septicemia there are four additional lines of therapeutics to pursue. (1) Fresh air—get the patient out of doors on a verandah if the weather permits. (2) Intravenous saline and glucose—and particularly glucose—repeated twice daily in 1000cc. doses if necessary. (3) Blood transfusion—probably the best treatment, and immuno-transfusion if possible. (4) Anti-streptococci serum in large doses if at all. After a long trial of serum I am still unconvinced that it does any good. At present I depend largely, on fresh air, intravenous saline and glucose and blood immuno-transfusions. Sleep is important—and if the patient does not sleep she should be given sedatives. But once again let me insist that there is no local treatment for puerperal sepsis.

(2) *Post-natal Examinations:* I believe that every woman who has had a baby should be examined at least twice post-natally, the first time when one makes one's last visit after the confinement, and the second time somewhere from 6-12 weeks thereafter. At the first such examination one can evaluate much better than immediately after the birth, just what damage has been done—if there is any prolapse, what the cervix looks like, how any sutured wounds are healing, the condition of the lochia, the amount of involution of the uterus. One is then able to advise the woman how to conduct herself during the ensuing weeks. The second examination discloses the amount of permanent damage, if any. If the cervix is eroded and discharging it should be cauterized, or treated by local applications. This is important since so many women who have had children complain of discharge and backache, the result of a cervical erosion. A retroverted uterus can be disregarded. At one time it was the custom to antevert such uteri and hold them in place with a Hodge pessary for a few months. It is now known that (1) The uterus may become retroverted subsequently to the 6-12 weeks examination, (2) That many uteri found to be retroverted at 6 weeks have anteverted themselves by the end of the year. (3) That it is only very rarely that a permanently retroverted uterus causes symptoms. If, at any of these examinations, it is found that an extensive tear has not healed, or there is an uncomfortable degree of prolapse, these should be corrected by operation at once. It is not good advice to tell a woman to continue with prolapse until her family is all born. To do so is (1) to condemn her to a long period of discomfort during the most active years of her life and (2) to run the chance of the untreated prolapse becoming worse. There is no reason why subsequent labors should undo the results of a plastic operation, if these labors are properly conducted and an episiotomy is done as soon as the head reaches the perineum. The only safeguard necessary is to ensure that the woman does not become pregnant for a year after such an operation, that is, until it has thoroughly healed. But if no operation is done at least a ring pessary should be inserted to prevent the prolapse becoming worse. If it has been found impossible to repair a complete tear of the perineum because of the lack of facilities in the patient's home, it is infinitely better to move her at once to hospital for this rather than send her months later when the local situation in the perineal area is demoralized with fibrous tissue.

(3) *Advice with Regard to Subsequent Pregnancies.* I do not believe that we have completed our duty to the pregnant woman, nor done our most to prevent maternal mortality, if we do not give some advice to a woman who has had a serious obstetrical complication, or is being devitalized by excessive pregnancy. The woman who has become excessively anemic because of ante- or post-partum hemorrhage should be cautioned against becoming pregnant again until her health has been completely regained. The woman who is losing ground physically because of too frequent pregnancies should also be cautioned of the danger she runs from their continuation. The woman who has had a severe toxemia should be told that under no circumstances should she become pregnant for at least a year and then not without an examination of her urine and blood pressure. The woman with permanent renal damage, shown by persistently raised blood pressure and casts, with or without albumin in the urine, should be advised against any further pregnancy. So should the woman with severe diabetes or severe heart disease. This, in effect, means giving them instruction in birth control. I think the time has come when as

a profession we must be prepared to give such instruction in these cases. If, because of religious prejudices, contraceptives cannot be used, at least the woman can be told about the so-called 'safe period'. But to advise against pregnancy and then withhold information as to how this can be attained is surely begging a serious question. For this is certain: unless information as to contraceptives or the 'safe' period is given to the cases I have enumerated above, we will continue to have a too-high maternal mortality rate.

To sum up then let me say:

- (1) That the maternal mortality rate for Nova Scotia is higher than it should be and that the ante-natal, intra-natal and post-natal technique now being carried out at the Dalhousie Health Centre and Grace Maternity Hospital shows that it can be at least cut in half.
- (2) That a prime factor in reducing maternal mortality in these two clinics has been the careful ante-natal care.
- (3) That an equivalent or better ante-natal care should be the privilege of every pregnant woman in Nova Scotia.

**DEPARTMENT OF NATIONAL REVENUE
INCOME TAX DIVISION
OTTAWA**

9th July, 1936.

Dr. T. C. Routley,
Secretary, Ontario Medical Association,
184 College Street, Toronto, Ontario.

Dear Dr. Routley:

With regard to Clause 2 (i) of the Memorandum regarding Returns of Members of Medical Profession, issued under date of 28th February, 1933, wherein it is stated that as an alternative to (h) and (i) there may be allowed a charge of 10c. per mile for automobiles used in the performance of professional duties, it may be said that as a result of experience since that memorandum was issued it is felt that the 10c. per mile is a too liberal allowance, and while it is not proposed to reduce this allowance retroactively, yet the Department has come to the conclusion that for 1936 and subsequently this allowance shall be reduced to 8c. per mile.

I shall be glad, therefore, if you will advise your members accordingly, sending me a number of copies of your circular in order that I may forward copies thereof to the Inspectors for their guidance.

Yours faithfully,

(Signed) C. F. ELLIOTT

Commissioner of Income Tax

Some Fundamentals in the Diagnosis of Pulmonary Tuberculosis*

HEDLEY V. KENT, M.D.
Truro, Nova Scotia

INFECTION with tubercle bacilli does not invariably result in tuberculous disease.

The positive tuberculin test, found in over 90% of humanity, is no proof that the individual is suffering from disease or needs general or special treatment, it only shows that the individual has been infected with tubercle bacilli at some period of his or her life.

What we all aim at in our practice is not only the discovery of tubercle infection but tuberculous disease. This is what the patient wants to find out and whether he needs any special treatment to cure or prolong his or her life. This information can only be given after a careful enquiry into the history of the patient, the symptoms the patient is suffering from, the physical signs elicited by the examination of the chest and other parts of the body, and applying some or all of the diagnostic methods which have been devised by medical science during the past two or three generations.

Realizing that the patients chances of recovery are greatest when recognized in its very incipency, there has been a tendency during recent years to treat every suspect as tuberculous until proven otherwise. This advice has been given by many authorities on the subject and followed by many physicians and as a result many innocent persons have been banished to Sanitoriums or to some distant climatic resort, many children have been deprived of an education, workmen have been induced to give up their work, and many men of affairs to neglect their business.

Active tuberculosis manifests itself invariably by signs of bacterial intoxication. If there are no symptoms of constitutional toxemia the patient may have been infected with tubercle bacilli (and who has not been) but he or she is not sick with a disease that requires special treatment.

There is no active tuberculosis without fever, cough, tachycardia, languor, night sweats, hemoptysis. Some or all of these symptoms are found soon after the patient becomes active by tuberculous.

The procedure of making physical examinations is well known to every physician. The main point to be emphasized in every case is that each step in the examination, (whether Inspection, Palpation, Auscultation or Percussion) should be thoroughly practised, because from each one is likely to gain information that may be of value in the final summing up of the case.

More failures to detect physical signs present are due to lack of thoroughness in making the examination than are due to the lack of knowledge of the nature of the signs. This is particularly so in the examination of any case in which tuberculosis is suspected.

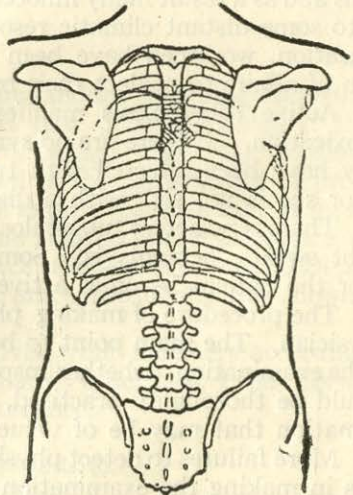
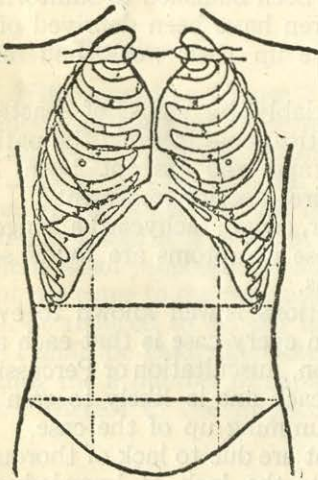
When consulted by a patient for any chest condition, the first thing, and most important thing, is to get a detailed history of the case. The details

should be recorded on a history sheet or card. It is a matter of choice which one you should use. The one that I have adopted is simple but goes sufficiently into details to answer all practical purposes. (See history sheet attached and accompanying plate of chart.) After taking the history, the next step

No.		193
NAME	AGE M. S.	Occupation
ADDRESS		HOW LONG UNABLE?

<p>Chief Symptom and Duration</p> <p>Cough.</p> <p>Dyspn.:—on exertion; with cough; in attacks</p> <p>Haemopt.— Amt. Duration</p> <p>Expect. (color)</p> <p>Pain.</p> <p>Palpit.</p> <p>Sweating.</p> <p>Vomiting.</p> <p>Emaciation.</p> <p>Voice.</p> <p>Sleep Flatce. Teeth.</p> <p>P. Temp. Bs.</p> <p>App. Tongue. Oed.</p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;"></td> <td style="width: 10%; text-align: center;">F.</td> <td style="width: 10%; text-align: center;">Br.</td> </tr> <tr> <td style="border-right: 1px solid black;">Fam. Hist.</td> <td style="border-left: 1px solid black; border-right: 1px solid black; text-align: center;">M.</td> <td></td> </tr> <tr> <td style="border-right: 1px solid black;"></td> <td style="border-left: 1px solid black; border-right: 1px solid black; text-align: center;">H.</td> <td style="text-align: center;">S.</td> </tr> <tr> <td style="border-right: 1px solid black;"></td> <td style="border-left: 1px solid black; border-right: 1px solid black; text-align: center;">W.</td> <td></td> </tr> <tr> <td style="border-right: 1px solid black;">Past Illnesses.</td> <td colspan="2" style="text-align: center;">Ch.</td> </tr> <tr> <td colspan="3" style="border-top: 1px solid black;">Other Hosp. or Sanat.</td> </tr> <tr> <td style="border-right: 1px solid black;">Aspect.</td> <td colspan="2" style="text-align: center;">Wt.—Normal</td> </tr> <tr> <td style="border-right: 1px solid black;">Cat:</td> <td colspan="2" style="text-align: center;">Actual</td> </tr> <tr> <td style="border-right: 1px solid black;">Clubbing of Fingers</td> <td colspan="2"></td> </tr> <tr> <td style="border-right: 1px solid black;">Ur.</td> <td colspan="2"></td> </tr> </table>		F.	Br.	Fam. Hist.	M.			H.	S.		W.		Past Illnesses.	Ch.		Other Hosp. or Sanat.			Aspect.	Wt.—Normal		Cat:	Actual		Clubbing of Fingers			Ur.		
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PHYSICAL SIGNS



DIAGNOSIS

Bl. Pr.

T. B.:—

is to prepare the patient for examination. This preparation deserves special mention.

- 1st. It is almost unnecessary to say that the room should be suitably warm, well lighted, and as quiet as possible.
- 2nd. The entire chest should be uncovered, back and front, for it cannot be emphasized too strongly as this is necessary for a thorough examination of the chest.
- 3rd. The clothes should be comfortably fastened about the waist so that the position assumed may be one of complete relaxation.

Physical Diagnosis is the term used to designate those methods which are employed for the detection of disease during life by the anatomical changes which it has produced. There are four common methods used for eliciting these physical signs, namely Inspection, Palpation, Percussion and Auscultation, the most important of these are Percussion and Auscultation.

Inspection is a valuable aid, if not done too hurriedly. Some of the signs to be sought for are,

- 1st. Any retraction as flattening of the apex. Of course this is not necessarily due to disease and is not a sign of tuberculosis.
- 2nd. Undue prominence of the Clavicle or an exaggeration of the Supra clavicular fossa.
- 3rd. Drooping of the shoulder often found to be present.
- 4th. Muscular Atrophy.
- 5th. Diminished expansion or lagging.
- 6th. Enlarged veins are often seen in the chest, especially in the Infra-clavicular region, and over the first and second interspace.

In the very beginning of pulmonary lesions we find that the affected side of the chest begins to expand, and the shoulder to move upward later than in the healthy side of the chest and it does not attain the same amount of expansion. This is best made out by letting the patient breathe normally and then ask him to take a few deep inspirations.

Lagging of the upper part of one side of the chest is an indication of tuberculosis, if acute and chronic non-tuberculous inflammatory lesions of the lung and pleura are excluded.

To estimate the value of percussion, and to understand its true meaning, one must first learn to value correctly the elements of sound.

These elements of percussion which concern clinicians might be termed Intensity, Pitch, Quality and Duration. Intensity of percussion sounds can be increased or decreased by increasing or decreasing the force of the percussion blow. But in pulmonary percussion the intensity depends not only on the force of the blow, but by the amount of air contained in the lungs, and also by the thickness of the soft parts covering the chest wall.

The pitch of the percussion sound is low over healthy lung, and the greater the quantity of air the lower the pitch. The pitch will vary in different regions of the healthy chest. This can only be determined by constant practice.

Quality. To distinguish any given sound from every other sound. The quality of the sound produced on percussion over a healthy lung substance

is termed normal vesicular resonance. This cannot be easily described, and can only be learned by experience.

Duration. The higher the pitch the shorter the duration.

Percussion. While the value of percussion, in the diagnosis in the advanced stage of tuberculosis, is not questioned. But it has been very seriously debated, whether it can give reliable information in the early or incipient stages. Many authorities, notably of the French School as Grancher, West, Bonney, Henry Sewall and others, maintain that small tuberculous lesions, in the lung in the incipient stage, can be recognized solely by auscultation, and when dullness is elicited on percussion, we may be confident that we are dealing with an extensive infiltration, and in a more or less advanced stage of the disease. On the other hand, Lees, Riviere and many others maintain, that if we are to detect incipient lesions in tuberculosis we must resort to percussion, and it is only when the process has advanced, that definite auscultation papers are made out. It would seem that these differences of opinion are mainly due to a misunderstanding as to the aims of percussion. Those who expect to make a diagnosis of incipient lesions, relying solely on percussion will be sadly disappointed, just as they will fail in attempting to draw final conclusions from any other single symptom or sign; on the other hand, given constitutional symptoms of tuberculosis, such as cough, fever, anorexia etc., signs of limited infiltration elicited on percussion, may enable us to make a diagnosis in the absence of auscultatory signs. The percussion stroke should be gentle, heavy blows with two or three fingers, are worse than useless. On account of the elasticity of the Thoracic walls, a large part of the percussion stroke, is dissipated, along the muscular and bony parieties, and when we strike a heavy blow, a great part of the force is conducted along the ribs and intercostal muscles, and resonance from the entire lung beneath is not elicited, consequently, small areas of airless tissue is overlooked; on the other hand when with a light stroke, the force is not conducted along the ribs, but is conducted directly into the lung, giving information, about the condition of the area of the lung, beneath the part examined, consequently by gentle percussion, we are able to localize small areas of superficial dullness.

Gentle percussion often brings out small areas of dullness, which disappear under heavy percussion.

The usual custom of percussion from above downwards has many disadvantages, it is better to percuss from below upward.

The pleximeter finger, should be placed parallel to the ribs, and applied very lightly, merely the weight of the finger is all that is necessary.

The patient should sit on a revolving stool, or better stand up, with head in the middle line, hands hanging loosely at the side. When percussing the back, the arms should be folded, and the hands placed on the opposite shoulder, shoulders slightly drooped, and the head and shoulders slightly bent forward.

In cases showing symptoms of tuberculosis, such as cough, fever, anorexia, etc., percussion signs alone are sufficient to localize the lesion, although no auscultatory signs are present. Percussion findings alone, without any general symptoms of tuberculosis, are not conclusive. It is only in connection with constitutional symptoms that it is of value in diagnosis.

Auscultation. There are some who believe, that the technique of auscultation is so much less difficult to master, than percussion, that they have discarded the latter almost entirely and rely upon the former for diagnostic

purposes, which is a great mistake. Some authorities as Riviere believe, that auscultation is even more difficult than percussion.

In auscultation the patient must be stripped to the waist. Before beginning auscultation, the physician should assure himself that the patient knows how to breathe properly. The breathing should be regular, somewhat deeper than normal, and preferably through the nose. In order to appreciate slight changes in the respiratory murmur, it is important to listen to each phase of the respiratory act separately. Grancher's method is to listen to the inspiratory murmur, and at the same time, disregard the expiratory and vice versa.

Begin with auscultation of the left apex. After determining the character of the inspiratory murmur, while the patient exhales, the bell of the stethoscope, is quickly carried over to a corresponding point on the right side of chest, and we listen to an inspiration; in this way the inspiratory murmur can be compared on the two sides of the chest, and any differences that may be found carefully noted.

The expiratory murmur can be studied in the same way. A thorough knowledge of and experience with the respiratory murmur present in a normal chest, is necessary, before attempting to properly interpret the auscultatory findings in pathological conditions of the lungs.

The physiological or vesicular respiratory murmur, shows that the lung, at the auscultated area, contains air, which enters with inspiration, and leaves with every act of expiration, without meeting with any obstruction in its course.

During inspiration it is heard with different degrees of intensity all over the chest. During expiration there is little or no murmur at all, more commonly a faint noise is heard, which is somewhat lower pitched and it lasts but $1/5$ the time of the inspiratory murmur, notwithstanding the fact that the expiratory act is longer than the inspiratory act.

Feeble breathing sounds. It is a noteworthy fact, that while few modern writers mention feeble breathing sounds, in incipient tuberculosis, "Andral" the great French physician, of the first half of the nineteenth century, considered it a good and reliable sign. He says, we have ascertained weakness of the respiratory murmur, or even its total absence, in points where, after death, we found tubercle scattered in greater or less number, in the midst of the pulmonary parenchyma. Fishberg says, "to be of diagnostic significance, this feeble breathing, must be localized over one apex, circumscribed, fixed, and persistent for some time, and uninfluenced by respiratory effort or cough."

"Bezancon, has pointed out, that in the absence of constitutional symptoms, feeble breathing at the apex, is a sign of a healed tuberculous lesion."

Interrupted or cog-wheel breathing, has long been held by some French writers, characteristic of early tuberculosis. Piery, on the other hand, holds cog-wheeled respiration is only rarely a sign of incipient tuberculosis.

Cog-wheeled breathing is often heard over the chests of nervous persons, but in these cases it is heard all over the chest, while in tuberculosis, it is localized over a limited area.

Prolonged Expiration. I think it is the experience of most clinicians that in the very early stage of tuberculosis, auscultatory changes are only detected in the inspiratory murmur. The older writers who held that prolonged expiratory murmur, was present in the early stage of the disease, can

be explained by the fact, that in former days, incipient tuberculosis, as we know it today, was not recognized. Even today patients, only rarely present themselves for examination, at the very incipency of the disease.

Feeble breath sounds, rough or cog-wheeled breathing is usually found, earlier than the changes found in the expiratory murmur.

Adventitious sounds, as crepitant and moist rales are frequently found in tubercular lesions, when present they usually indicate a moderately or advanced stage of the disease. This would seem reasonable, when you realize, that rales are produced, when caseous material softens, and breaks through the walls of the bronchi.

Examination of the sputum often gives important information, considerable care, should be taken, in securing the specimen. When the sputum is scanty, it is better to get a twenty-four specimen; active cases of tuberculosis, with persistent negative sputum are rare, most of the cases, where the sputum is examined repeatedly, will show tubercle bacilli. Dr. Fishberg of New York, says in his hospital practice, these supposed closed cases, often show the presence of tubercle bacilli, after several examinations, in some cases it takes as many as twenty microscopic examinations, to find one positive. He further states, it is doubtful whether a patient, who shows persistently negative sputum, is in fact sick with tuberculosis requiring treatment, and I have the impression based on good authority, that the Sanitoriums, which have as many as over 50 per cent "Sputum Negative" cases have an enormous proportion of Non-tuberculosis cases within their walls, I doubt whether more than 10% of these "Sputum Negative" cases are tuberculous in the clinical sense."

In the very early stages of active tuberculosis, tubercle bacilli are more often absent, than present in the sputum, and it is only after the softening of the tubercle, that the disease focus, opens into the bronchiole, that they can be found.

In a patient, who in the afternoons, has a rise of temperature for several weeks, and no other cause is found, it is very suggestive of tuberculosis, if the fever is accompanied with a cough, loss of weight, languor, and especially where the morning temperature is subnormal, pulmonary tuberculosis is probably the underlying cause, even if the physical signs are not definite.

*We understand that some of Dr. Kent's conclusions, as expressed in this article, are not in keeping with the opinions of many other workers in this field.—Ed.

Historical Section

HOSPITAL DU ROY, LOUISBOURG

W. W. PATTON, M.D.

"The fortress of Louisbourg arose not from victory but from defeat; not from military strength but from naval weakness; not from a new adventurous spirit of attack but from a half despairing hope of keeping one last foothold by the sea. It was not begun till the fortunes of Louis Fourteenth had reached their lowest ebb at the Treaty of Utrecht in 1713. It lived a precarious life of only forty years from 1720 to 1760. And nothing but bare ruins were left to mark its grave when it finally passed unheeded and unnamed into the vast dominions of the conquering British at the Peace of Paris in 1763."

William Wood.

SUCH briefly is the history of the Great fortress, the pride of France, and a crowning triumph of military skill. Buried and forgotten the ruins remained for a century and a half, guarded only by the breakers that wash the lonely shore, waiting for the hand of the builder to restore their once proud form.

The work of restoration was begun not many years ago and each season sees something more accomplished. Many locations of vast historical interest have been authentically established, many foundations buried beneath the grass have been uncovered, while curious relics of warfare and even the skeletons of men have been found from time to time as the work of restoration goes on.

The purpose of this paper is to direct the reader's attention to the ruins of one building, which occupied a whole city block, which at that time was greater than any other for a similar purpose on the American continent East of Quebec, viz: "The King's Hospital".

It may be well, at this time, to remember that the care of the sick became a religious duty with the dawning of the Christian Era. To visit those suffering from disease was looked upon as a divine command, and no true disciple could neglect this obligation if he wished to follow in the Master's footsteps. At first the sick were visited in their homes but as time went by the practice of lodging them together developed, not only for the purpose of convenience but to afford better care. Thus by a gradual process of growth, hospitals for the care of the sick became a permanent establishment.

Beginning in Rome the hospital movement spread to other European countries and probably reached its highest state of perfection in France at the time she was establishing her power in the New World.

It is easy then to understand with this hospital background in France, that the fortress of Louisbourg—this great Dunkirk of America—could never be properly completed without an institution for the care of the sick. Further the Indians who were always faithful to the French flag—their allies from the beginning—were dying by thousands from disease. Acts of mercy and healing, radiating from institutions of this kind, to the unhappy Indian tribes, had been found in Quebec to bind more firmly the tie of friendship. Moreover not to be outdone by the Spaniards who under Cortez in 1524 had built a hospital, which still stands in the City of Mexico and marks the spot where the great

Conqueror made peace with Montezuma, the French government made plans for a great hospital.

It may be well to note before going further with the subject of this paper that as early as 1629 a small hospital existed at Port Royal. A brief account of it is given in "Four Centuries of Medical History in Canada" by Heagerty and quoted as follows—

"HOSPITAL ST. JEAN DE DIEU"
PORT ROYAL"

One of the earliest of Canadian hospitals was that at Port Royal, the following reference to which is found in the "Memoir de Deagouttins".

'The hospital which is established at Port Royal is twenty-five feet long by eighteen wide—eight beds, very bad, because no supplies have been sent to the hospital for five years. The revenues of this hospital consist of fines and some gifts that do not amount to 200 livres. It is also in receipt of quitrents of the bonlieu of Port Royal. This consists of some bushels of wheat and 56 livres in money, also the lods et ventes (tithes and proceeds of sales) the whole lot not more than 125 livres.'

Rameau de Saint Pere in "Une Colonie Feodal" in commenting on the above says:

'The above goes to show that the fort at Port Royal was considered a royal domain seeing that the fort was receiving quitrents. The seigniorial Manor of which the rural tenants were dependents, was undoubtedly in some other building. All the fiefs then owed homage to the fort.'

The inference one draws is that the hospital was not a general hospital in the full sense of the word but rather a feudal or seigniorial hospital to which the tenants of the Seigniori contributed. The date of origin is in doubt. It is stated to have been in existence as early as 1629 but there is little evidence to support this statement. It is not shown on any of the early maps.

Returning to Louisbourg, it appears to be somewhat difficult to fix the exact date when the hospitalization of patients first began. The date is sometimes given as 1824, but letters from the Canadian Archives would indicate that as far back as 1715 plans were being drawn up and hospital management defined in detail, for a hospital in Isle Royale which was to take care of the disabled and infirm, not only of His Majesty's forces, but also the civilian population of the whole island. The letters further indicate that although the official management of the hospital was entrusted to officers appointed by the government, the professional practice was given over entirely to a Religious Order. I am indebted to the Catholic Encyclopaedia for a reference to this Order known as "Societe de St. Jean de Dieu" or "Brother Hospitalers of St. John of God" which reads as follows—

"St. John of God, the founder of this religious institution, was born March 8th, 1495 in Montemor Nova in Portugal. He founded his first hospital at Granada in Spain about 1540.

Thanks to the generosity of King Phillip 11, a hospital was founded at Madrid, another at Cordova and several others in various Spanish Towns. The Order spread rapidly into other countries of Europe and even into the distant colonies.

The brothers undergo a special course of training in order to fit them for carrying on their various works of charity to which they devote their lives. In some provinces some of them are even graduates in Medicine, surgery and chemistry. The members are not in Holy Orders but Priests wishing to devote their sacred ministry to the Brothers and Patients are received. To the three solemn vows of religion they add a fourth of serving the sick for life in their hospitals."

The following letter indicates to some extent how the management of the hospital about the year 1716 began to materialise into concrete form:

"Arch. des Colonies F.3 Vol. 50-1, PP. 97-8"

"Extrait de la Lettre du Conseil a
M. M. de Castebelle et Saubras
27 Juin 1716"

"Some patent letters have been granted to the Brothers of Charity for their establishment at Isle Royale. You will find this copy attached and you will conform yourself to it.

As these Brothers (religieux) have asked to do all the surgical work in their hospital, which has been granted to them the Consel has considered that it was useless to send a Surgeon-Major. There is one among the Brothers who spends this year there, who understands surgery perfectly well.

A sum of £1004 10s has been sent to the Brothers to buy all the ornaments necessary for the hospital-chapel. You will find here-joined an inventory of these things for which this sum has been used. These Brothers asked that there be delivered to them, 6 rations for soldiers per day from the stores of the King; the Consel granted them this during the first year of their establishment and Signior de Saubras will have charge of delivering them during that time."

(Not signed)

Another letter dated 2 mos. prior to the above, throws some more light on the establishment of this institution. Given below,

"Archives of the Colonies F³. Vol. 50-1, P. P. 91-93.

An extract of the Marine Consel's letter to M. M. de Castebelle and Saubras.

22 April, 1716.

The Consel has decided to send three Brothers of Charity in order to begin a hospital at Isle Royale and necessary funds will be furnished for their support.

Those of the inhabitants who are fishermen, whether they sail in vessels or fish in boats from the shore, will pay 10 lbs. of cod for the daily support of poor inhabitants who are ill in the hospital. In regard to sick soldiers, the flour which would have been furnished them, will be given to the hospital with the rest of their pay, and the poor inhabitants, and those beyond the ability of nourishing themselves, will be received there free.

This establishment will be very useful to Isle Royale, and the Consel will send you a copy of the patent letters which will be granted to these Brothers, in order that you may conform to them.

The support of those who conduct the hospital being assured, and the patients who will be in position to do it, paying them, it will not be necessary that there be rights established at Isle Royale for this hospital, and that there will not be raised anything on the ship's boats in any way, which conduct fishing nor on those who conduct taverns. He is willing also to grant to all the inhabitants the liberty to sell wine and brandy, but he wishes at the same time that you hold a firm hand in preventing disorder as much as you can and that you will render him an account of the serious offences.

You will also attend to binding the Tavern-keepers not to keep open during divine worship or at undue hours and the consul commands you to observe a strict watch in this respect."

(Not signed)

"Archives of the Colonies F³, Vol. 50-1, P. P. 41-8.

By-laws for the Louisbourg Hospital."

"The necessary importance of having in an establishment as extensive as that of Isle Royale, a hospital in which the patients may find all the help that their condition may make them hope for, and that Christian charity inspire in the faithful to procure it mutually, decided the Court to consent that there would be in this island such. I judge proper to forestall irregularities and abuses that might creep into the administration of this hospital, to draw up a plan which might serve as a guide and which through the care of those whom I should entrust to keep a firm hand, be followed by a complete and faithful performance.

So it seems essential to found a fund on which we may count to provide for the daily and indispensable expenses, for the establishment and maintenance of the hospital and patients, I have conformed to the Orders of the Court and following the custom at Plaisance, exacted from each

merchant ship and each inhabitant fishing, a quintal of Cod per boat, and this tax being collected with care and used with caution will be a sure fund, which joined with the military stores which the Court will readily grant, according to custom, on the memorandum that I shall draw up will suffice in sustaining this establishment, and as much as it is proper to give a stable form. To avoid unnecessary expenditure and false accounts, I have found suitable to entrust the management of the hospital to persons who by their zeal and attention may obtain blessing and profit.

I have chosen for this M. M. Thermete, lieutenant of the King, Desgoutins, a scholar and inhabitant, with the R. P. Dominique, in the character of directors to supervise the management and good order of the hospital, to provide for its frugal wants and to protect its interests, and thought this, that the Directors themselves might not attend to certain details that demand an entire man, I have thought it right to confide the daily management to St. Micoïn, a wise and understanding person, to watch over the needs of the patients and the management of the surgery and infirmaries.

The codfish proceeding from the inhabitants will be used in buying meat and other supplies which are found in this country, the goods coming from France, whether they proceed from the liberality of Sr. Micoïn or rather from the returns that the Merchant ships will make will be given to the Directors and there will be drawn up a statement that they will sign and I shall endorse.

In order to establish the collection of the codfish I shall furnish at the end of each fishing, to the Directors an inventory of the ships of the inhabitants who fish on this island.

Since the funds of the hospital will be drawn as much from that which Sr. Micoïn will be willing to grant, as from that which each merchant and inhabitant will furnish, both will have fixed and assured tax, as much for them as for their companions and help, and we hope they will find all the satisfaction they wish.

In order to succeed more easily and surely the surgeon-major and the manager will each have a book in which they will keep as an exact inventory of the names of the patients and the day of their entry, of the time they will remain until the day of their departure. The Directors will sign this inventory at the end of each month. The manager will keep a similar account of the receipts and daily expenses which will likewise be obliged to be checked monthly by the Directors, as much for his protection as for the security of the goods of the hospital. No one will be received except on my orders or those of one of the directors. The inventories will be given to the surgeon-major who will present them again each month when he will endorse the list of his patients. Into the hands of the manager the goods and provisions of the hospital will be placed as well as the furniture and utensils. He will take an inventory of it, and be on the watch for its keeping; he will take care that they are neither spoiled or wasted, and if he will prove himself careless in a point so essential he will forfeit the reward justly due his carefulness. It (the reward) will be given him from the foods of the hospital and more or less considerable according to the satisfaction that I shall have of his management and the furnishing of fish.

There will be three inventories of the furniture and utensils necessary for the hospital, of which one will be given to the surgeon, the second will remain in the hands of the Directors, and the third for the manager. They will be signed by both and countersigned by me.

It will not be permitted to any of the Directors nor to the Manager to give away or even lend any of the furniture, linens and utensils of the hospital without an express order from me for reasons judged proper and indispensable.

The alms and gifts awarded to the hospital will be given to the Directors before entering into the funds of the hospital, their receipts will be signed by all the Directors and placed in their book; communication of this will be given to the Manager whose duty it will be to procure the payment of it. The funds of the hospital will not be loaned under any pretext that might be, not even that of increasing its value, and the goods brought from France will not be exchanged only in case of absolute necessity, esteemed such, by the Directors and myself and for the acquisition of things absolutely essential, the order will be drawn up and signed by the Directors at our order.

All acquisitions made even to the advantage of the hospital will be deemed null and void if they are not of the consent of all the Directors and authorized by us and under the signature of both. It will be the same with sales and transfers. It will not be permitted to the Manager nor to anyone, whoever it may be, to carry away either soups or food from the hospital for whomever it may be, unless by my order, knowledge of which will be given to the Directors and by them to the Manager.

Since it is only proper for the Manager to provide for the daily needs, it is also he alone who will deliver to the hospital what is necessary to give each patient day by day. It will be on the orders of the Surgeon that he will make his distribution and to the places that the food and supplies will be delivered by the store-keeper, which will be drawn from the stores of the King. He will see that the infirmaries will not waste anything, and in case that he will receive complaints from the patients, he will not fail to make a report of it to the Directors in order that it may be looked into.

They will follow in the daily distribution, the rule and customs that have been established in all the Royal hospitals, and they will conform to it as much as the conveniences of the place will permit; for that I insert here that the rations will consist of,—

'A pound and a half of fresh bread.

Three quarts of wine.

A half-pound of fresh meat.

A quarter-pound of Lard.

A quarter-pound of prunes and an ounce of sugar.

Two ounces of rice and an ounce of butter.

A fowl per week.'

Dated at Louisbourg Oct. 24-1714
Signed Saubras."

Of the early hospitals in Canada it may not be going too far afield to recall the names and date of each establishment down to the time when the third hospital was founded in Nova Scotia and which is still actively at work—The Victoria General in Halifax.

Hospital		Date of Establishment.
Hospital St. Jean de Dieu.....	Port Royal	1629
Hotel-Dieu.....	Quebec	1639
Hotel-Dieu of De Montreal.....		1644
Hospital General De Quebec.....		1693
Hospital General De Montreal.....		1694
Hospital Des Trois Rivieres.....		1697
Hospital Du Roy.....	Louisbourg	1716 or 1724
General Hospital.....	Toronto	1818
General Hospital.....	Montreal	1820
Marine Hospital.....	Quebec	1830
Hospital St. Boniface.....		1844
Hotel Dieu.....	Kingston	1845
General Public Hospital.....	St. John, N. B.	1860
Victoria General Hospital.....	Halifax	1867

From the above it would appear that the King's Hospital at Louisbourg was the seventh founded in Canada, a plan of which is in the National Library, Paris, drawn and coloured by Albert Almon of Glace Bay, N. S., to whom I am indebted for much valuable information. "Four Centuries of Medical History in Canada" gives a splendid description of the building which is recorded as follows:

"Hospital Du Roy, (The King's Hospital) Louisbourg

This early Cape Breton Hospital which we have seen, was erected about the year 1724 by the brothers of the Societe de St. Jean de Dieu, was a large and well constituted building of solid masonry with timber rook. It stood two stories high on Dauphine Street, and two stories and basement on Pond and Descataig Street. It occupied a whole city block which was enclosed at the rear of the hospital on Royal Street, and also partly enclosed on Pond Street by a stone wall fifteen feet high. The length of the main building on Dauphine Street was 265 feet, on Pond Street 88 feet, and on Descataig Street 70 feet.

Whether the building was destroyed by fire or fell into decay, it has been impossible to ascertain. However, on looking over the ruins, it is seen by the mounds of stone that the wing on Descataig Street must have joined the corner building which was connected with the institution; and in the same block, thus making this section on Descataig Street 195 feet long, and on Royal Street 52 feet; giving a total measurement on the four streets or 600 feet.

In the hospital, there were four main wards, with a capacity of 104 beds, besides a number of private rooms with one bed in each room. These were probably used for private patients, attendants, etc. It is not shown on the plan, the original of which is in the National Library at Paris of how the wards were heated and although there are several chimneys shown above the public wards, there are no fire-places indicated below. In the administration part of the building, there were ten fire-places for the heating of these rooms.

The Sanctuary and Alter of the Chapel were located at the corner of Dauphine and Pond Streets. The Sanctuary was divided or partitioned off from the wards by a screen or curtain, and when this curtain was drawn aside, the two wards with a length of 231 feet, became one Chapel, as the main doors from corridor to wards were about 12 feet wide. This Chapel was, no doubt, in case of necessity, used for service when there were large numbers in the city.

Off the main corridor in the rear of the building, was a smaller Chapel, the main stairway to the second floor was situated in this corridor at the rear of the building. There were also several private stairways leading from the different rooms in the two L's of the building. The corridor continued through the building and out into a court; a section as far as the end of the L's was about 2 feet lower than the floor; then it connected with the lower court by two inclined walks, the difference between upper and lower court being six to eight feet. In the lower court were the garden and walk. The main walk continued out through a large gate in the wall on Royal Street. The yard contained what appeared to be beds of flowers or vegetables or both and all were inclosed with fences.

In the L. building on Royal and Descataig Streets, there was only one partition and nothing shown to indicate what it was used for. The plan of the other L. building on Royal and Pond Streets was different. There were two rooms in one of which there was a large fire place set in a chimney on either side of which there were two boilers. Just outside this room was a well reached by a door leading from the room. In the other room there was a large bath or pool which was supplied from the boilers in the adjoining room. There was also a chimney in this room, which apparently served the purpose of ventilation.

Upon the centre of the building there was a large spire, 40 feet high, surmounted with a cross on top of which was the French Emblem and a cock, and on each of the roof corners was the Fleur de lis."

As early as 1716, the Louisbourg establishment provided for a Surgeon-Major. The following is an extract of a letter which contains some reference to this official respecting his duties and remuneration, about the year 1740.

"The surgeon makes frequent visits to the hospital and the 'religieux' are now accustomed to him. His salary—300 livres—is not sufficient. He saves money to the King by taking good care of the soldiers before sending them to the Hospital. He should get at least a living allowance of 600 livres which is the ordinary of the surgeon at Rochefort."

The Surgeon-Major being a high official and whose duties pertained to the whole fortress, as well as the hospital, it has been of interest to learn something of the incumbent of this office.

An early letter relating to Medical Service at Isle Royale reads as follows:—

"Three surgeons at Isle Royal:

Vranem,
LeRoux,
Le Grange.

LeRoux was settled for Louisbourg and Le Grange for Port Dauphine.

But of the three surgeons on duty at Isle Royal, the name of Le Roux is most noted for every kind of work, he is a chemist and composes the most part of his remedies. Le Grange confines all his skill to his razor and his lance. This my Lord is all I can ascribe to him on a similar subject."

Different letters indicate that LeGrange was transferred to Louisbourg and that in 1735 permission was asked for to allow him to return to France on account of ill health. He died in France the following year.

The vacancy was filled by the appointment of his son-in-law, Mr. Bertin as confirmed in a letter dated Oct. 23-1737.

"Series C. B. Vol. 19 P. 7

23 Oct. 1737.

M. M. de Brouillen and Lenormand
to the Minister.

The Sr. Bertin received his 'brevet' as surgeon of Louisbourg granted to him by the minister, to take the position of his father-in-law Sr. Le Grange. Bertin always worked with care and assiduity."

Bertin appears to have continued in office for several years for the following letter is in reference to him as late as 1754.

"C. B. Vol. 34, P. P.-67.

Mr. Prevost's Lettre 25 Aug. 1754.

The illness of Sr. Bertin, head surgeon of the place has ended some time ago, but he is not yet in condition to make use of his leg, and happily several surgeons among the Brothers of Charity have been found who are ready to take care of the sick in the best manner in these annoying circumstances with the assistance of the said Sr. Bertin."

"Prevost"

From these letters it is gathered that the Post of Surgeon for almost the entire period of the French occupation was held by LeGrange and his son-in-law.

Extracts from various letters covering a period of fifteen years from 1735 to 1750 lead to the conclusion that the relationship between the Brothers of Charity, and the officials of the King were not always harmonious. These letters explain circumstances very well, some of which are given below.

"As to the inspection 'charitas' which has been placed above one of the doors of the hospital. Mr. Lenormant was obliged to take it off not to induce the 'religieux' to think that the building was their own property."

"A man committed murder in this town last year and could not be found. He had been sheltered at the hospital. After several days the 'religieux' let him go to Acadia and from there he went to France. They pretended they could shelter such a man because the hospital belonged to them. Later on a prisoner being found very ill and being unable to stay in prison was carried to the hospital. The 'religieux' refused to receive him. The only reason they gave was that the hospital belonged to them and that they would not receive prisoners and if they were forced to do it they would let him free. But after discussion with the Superior the prisoner was placed in a small room. A few days later he escaped by the window which opens in the 'religieux' yard. The iron bar which grated this window had been forced to facilitate the escape of this man but do not believe the 'religieux' responsible for the escape. The inscription 'Charitas' was taken off."

"Had difficulties with the 'religieux' who would not receive at the hospital a man who fell sick in gaol where he had been placed because his inclination to insanity. The religieux pretend

that they are not there to take care of that kind of disease. That they are not obliged to do it. But nevertheless the man was placed in one of the officer's rooms, having grated windows."

"Several of the soldiers of this garrison are suffering of Venereal disease at the hospital, in spite of the protest made by the Brothers of Charity as to their ignorance to treat such a disease. They even say they would not receive people with such diseases in their hospital. They have written to their Provincial to obtain by him from the Minister the permission to refuse them."

"There is no arrangement yet concerning the treatment of soldiers attacked by venereal disease at the hospital or this city, but it does not prevent me of accepting them."

"Think that if the hospital was attended by the Grey Nuns it would cost less to the King, and the patients would be better fed and cleaner. There would be a Surgeon-Major under whom there would be a surgeon and apprentices, who could be sent to the harbours after they would be instructed; those attending the fishermen now are absolutely without knowledge. If this proposition is approved a statement of expenses will be sent next year showing in detail the hospital expenses including the fees to the Nuns, and to those who attend the hospital. This will be balanced with the present expense."

Various other documents and letters furnish definite evidence that the management of the hospital found it necessary at different times to complain to the government of wrongs and abuses being imposed on it by battalion and naval officers. These officers regarded this hospital as subservient to the well-being of their units and should not altogether confine its work to the care of the sick. They insisted that soldiers needing rest and a change of food should be admitted with the same privileges as regular hospital patients. Furthermore, the Naval officers when denied the privilege of taking their own servants into the hospital with them, displayed a keen resentment which at times threatened to disturb the tranquillity of the whole institutions.

The following letters are of interest as they refer to these circumstances and explain very well the difficulties which confronted the hospital management.

"C. B. Vol. 36, P. P. 117-19

At Louisbourg, Apr. 10-1756.

There have been very many sick soldiers since the month of January in these Two Battalions; the one of Artois has furnished double the patients of the independent Naval Companies but the Burgoyne Battalion always has at least a half more than the Two others, because it is less disciplined, and nearly all these patients, whom we vaguely call scorbutic, are lazy and drunken people. I shall not even hide from you that the Brothers of Charity, often, themselves refuse to receive those who are sent to the hospital without just cause, or in order to get them out of prison. I suspect also that the Captains of these troops, who fear that the rations of such meat incommode the men who they regard as their own particularly, send them to the hospital from time to time in order to refresh them exclusively by fresh meat. It matters little to them to engage the King in this expense; they maltreat the Monks if they refuse to admit a soldier who does not appear ill to them, and this results in a much greater evil in that these rascals consume of the refreshments, which cannot be too well taken care of in the present circumstances for the truly sick. I can no longer following the presentations of these gentlemen submit sick soldiers of their battalion to the Visis of the surgeon-major of the place, as they have an assistant-major attached to them. He is *Sieur Guerin* who is independent of *M. de St. Julhien*; a noisy man besides of an annoying character; perhaps a good operator but dissipated, and immoderate in his talk, and too much occupied with folly to be of any use to the battalion and to the colony, which makes the situation in this regard very unfortunate, for there are only the Brothers' surgeon at the hospital, and *Sieur Bertin* attached to the place, who have the confidence of the public, and it is much to be desired that you should be willing to grant to the colony a doctor with a good surgeon whom the Governor and myself will take the liberty of asking from you this autumn, for it is unfortunate

for those who are seriously effected by illness, to be here without the aid of experienced men. I am suffering very much myself in the situation that I have been in for a long time from a considerable swelling in the legs which nothing can dissipate since three months, although I used different remedies."

"C. B. Vol. 37 P. P. 172-175."

"Mr. Prevost's Letter"

"Signed Prevost"

"September 16-1757 at Louisbourg."

"But I must notify you my Lord of an abuse which is creeping in on the part of Naval officers from Provence, and even of the guards and almoners, who can no longer stay in our hospital without bringing in a servant, for whom they take also an admission ticket. I wish to repress it by informing them of the uselessness of this servant, whose stay costs the king twenty-five Sols, inasmuch as the Brothers of Charity have some hospital attendants, and as, when the number of patients increase, I oblige them to take there so that their service may be done. I should have been able to refuse it absolutely, if I had not forseen an infinity of annoyance, talk and evil results on the part of these gentlemen, who are today on the verge of doing everything they wish and who do not think an Intendant or orderer in the right to refuse them anything they desire, even against the good law, and for whom they will have very bad manners if it is not granted to them. I have preferred my Lord to inform you and to ask your orders for the future or to beg you to tell the commanding captains not to allow the Naval officers and guards to bring their servants into the hospital, when they will have been admitted there in the colonies. The monks continue to serve well at this house, but they have need of their Provincial sending here at least four good members at the first opportunity, for since the month of February they have buried three priests, Charles, Agricola and Hachile, the first was a surgeon and the other two hospital attendants."

I am with a very profound respect my lord,

Your very humble and very obedient servant"

"Prevost"

But the Great Fortress was destined to live "a precarious life of only forty years". The final scene is about to be enacted and as the curtain falls for the last time, we see the mighty ramparts crumbling into ruins and with them the King's Hospital, never to rise again.

We are told that three years were required to level the fortress to the ground. The following letters shed a little light on the last days and fate of this humanitarian institution not surpassed, at that period, on this Continent.

"Series C11 B. Vol. 38, P. 48"

"Louisbourg,

7th June, 1738"

"Prevost to the Minister."

"A cannon ball fell on the hospital on the night of the 6th instant and two 'religieux' were seriously injured. The surgeon lost his life. Arrangements are being made for the treatment of the officers."

"Prevost."

"Series C11 B. Vol. 38, P. 282."

Louisbourg 20th June 1758"

"Mr. Kerdisieu to the Minister."

"As soon as the enemies were master in the place the Marquis Desgouttes was asked permission to transform some of the vessels into hospitals to place the sick soldiers. The permission was granted and the vessels 'L'Apollon', 'LaChevre' and 'La Ville de Saint-Malo' were used for this purpose. Nothing was spared to give to the sick persons every commodities. The number is not increasing fortunately as all our medicaments and utensils were burned in the hospitals to which we have lighted the fire as soon as the enemy got on the land."

"P. S. Wolfe treated the sick with great care."

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It is to be distinctly understood that the Editors of this Journal do not necessarily subscribe to the views of its contributors, except those which may be expressed in this section.

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“AS OTHERS SEE US”

THE fifteenth annual Dalhousie Refresher Course has concluded its sessions, and once more we return to routine professional duties, we believe with a keener appreciation of the gravity of our medical problems and responsibilities, and a correspondingly brighter outlook for the welfare of our patients.

The course this year did not differ materially from those of former years, except that the attendance was considerably larger, due partly to the fact that the Nova Scotia Medical Society and the Public Health Officers held their sessions in Halifax during the same week, but due, no doubt, in greater part to the increasing interest which the profession in general manifest toward the acquisition of up to date medical knowledge.

Attendance at these courses appears to be becoming more or less contagious; the urge to attend seems to spread from neighbour to neighbour. It is true that there are some here and there who do not catch the disease easily; but there are few indeed who are not in some measure influenced by this education of their neighbours. Obviously the results of this movement are bound in time to make for better medical service and better doctors.

It would seem superfluous to say how much the efforts of those who made these courses possible, were appreciated by the members of the profession, who were fortunate enough to be present, as this years increased attendance, the rapt attention given to the various speakers and the general enthusiasm shown throughout the course, strikingly demonstrated the favour with which their efforts were received. Their vision of such a course was a happy circumstance, and their task was well done, and we predict the achievements of the years to come will produce even better results than the accomplishments of the past, valuable as these have been.

It would not be practical to single out any part of this year's programme for detailed description, but reference to a few points here and there may not be out of place.

In the clinic room a very representative class of cases were presented of whom some were procured from the out patient department only after much persuasion and great effort on the part of those who conducted the clinics. These cases were investigated from every angle, and in most diagnosis was established beyond the shadow of doubt: others however, —more complicated

cases—were presented in which, after all available diagnostic means were exhausted—both laboratory and clinical—some doubt still existed as to the exact nature of the disease. Thus showing that in our medical studies probability is still a factor with which we must conjure. In the field of surgery, cases were presented, which clearly demonstrated that the apparently impossible can sometimes be accomplished by the hands of a painstaking and competent surgeon.

In the lecture room which was generally overcrowded, and in which zeal for air conditioning was not apparent, many valuable addresses were listened to and discussed. The subject of Protamin Insulin was presented in a scientific yet intelligible manner, that all could appreciate. Hope was held out that in the near future some at least of the ever increasing number of diabetics might be able to carry on with fewer needle punctures. The problems of maternal and child welfare were ably presented from the viewpoint of the statistician, the gynaecologist, the obstetrician and the paediatrician. The last three clearly outlined the best methods of preventing and treating the accidents of childbirth, and thereby reducing to a minimum the mortality and morbidity of these two classes. The special lectures and demonstrations on radiation therapy were very carefully prepared and presented in such a manner as to be of practical value to the general practitioner. But these latter will probably appear in an early issue of the BULLETIN when a more careful study of them may be made.

The display of specimens in the Pathological Institute might well in itself have furnished material for a week's study. Here were arranged with meticulous care, a great variety of tumours and diseased tissues which could be examined both macroscopically and microscopically; and a card placed by the side of each gave a detailed description of the nature and characteristics of each. The labour entailed in the preparation of such an exhibit shows clearly that the pathological department are keenly appreciative of the necessity for general improvement in medical knowledge.

The lectures on general medicine and surgery were very ably presented and attentively received. It was pointed out that the indiscriminate use of vaccines, sera, hormones etc., the therapeutic value of which has not yet been definitely determined, was not considered the best of medical practice. The mutilation of the tonsils also received its fair share of attention.

Not only in the lecture room and clinic was there shown an increasing interest in and enthusiasm toward this year's course, but in the halls, corridors and door-steps, where two or three were gathered together, discussion of individual problems took place and a wealth of fresh ideas and suggestions passed from one to the other. The stimulating mental atmosphere which permeated all the sessions could not fail to produce lasting and beneficial results.

How can attendance at these courses be increased? It is true that there are practitioners in this Province so fortunately situated that they can and do go to other higher centres of learning for post graduate study. They carry on the practice of medicine and surgery with a high degree of efficiency and their work is a credit to the profession. The complexity of the medical problems of today is such that, to bring truth out of the chaos of conflicting opinions, requires the co-operation of the keenest and most alert minds. Would it be too much to ask then that they—"come over and help us". Ample opportunity is always given for discussion.

There may be in some remote corner of our land—"Some Cromwell guiltless of his country's blood," who by virtue of natural ability and thorough

early training has reached the heights of medical efficiency. To him also the invitation goes out—let your light so shine that others may take knowledge of you.

Again, it is alleged, there is a class of physicians who after graduation are strangers to the halls of learning. To these in particular and to us all in general the following words from Sir William Osler may furnish food for thought.

Quote:—

“No class of men needs friction so much as physicians; no class gets less. The daily round of a busy practitioner tends to develop an egoism of a most intense kind, to which there is no antidote. The few set-backs are forgotten, the mistakes are often buried, and ten years of successful work tend to make a man touchy, dogmatic, intolerant of correction, and abominably self-centred. To this mental attitude the Medical Society is the best corrective, and a man misses a good part of his education who does not get knocked about a bit by his colleagues in discussions and criticisms.

The very marrow and fitness of books may not suffice to save a man from becoming a poor, mean-spirited devil, without a spark of fine professional feeling, and without a thought above the sordid issues of the day.

The man who knows it all and gets nothing from the Society reminds one of that little dried-up miniature of humanity the prematurely senile infant, whose tabetic marasmus has added old age to infancy. Why should he go to the Society and hear Dr. Jones on the gastric relations of neurasthenia when he can get it so much better out of the works of Einhorn or Ewald? He is weary of seeing appendices, and there are no new pelvic viscera for demonstration. It is a waste of time, he says, and he feels better at home, and perhaps that is the best place for a man who has reached this stage of intellectual stagnation.”

DAN MURRAY.

“THE OLD ORDER CHANGETH.”

WE are happy to have Dr. Dan Murray as our “guest editor”. He very kindly acceded to our request to write upon the subject which he here so ably discusses.

Dr. Murray is distinguished among us for many excellent qualities, and will be remembered very kindly as our one-time president. His peculiar fitness for this subject, however, arises out of his familiarity with post-graduate education in many places but more particularly with our own maritime efforts. Dr. Murray has not missed many annual meetings since he graduated, but he has the probably unique distinction of having attended every Dalhousie Refresher Course since its inception. Readers will see in his writing a peculiar fitness on other grounds as well and will hope to see more of it from time to time.

* * * * *

We have chosen the effulgence of Dr. Murray as the setting for our personal obsequies, for with this number the obligation of the undersigned to the BULLETIN ceases, in respect of editorial responsibility. The Society at its annual meeting accepted our refusal of another nomination, and the honor has been accepted by another man.

The six or seven years that we have been associated with the journal, though not without vicissitudes, had much of harmonious association and

kindly co-operation that was very pleasant. One would be churlish indeed, if one did not review them somewhat, and remember in this page, at this time the names of those to whom this little journal owes so much.

Dr. S. L. Walker is its father. He nurtured it for a long time, and even yet, at times, recognizes his paternal relationship and sends it a little nourishment. He made it an interesting journal many a time, when securing original articles was an exceedingly difficult task.

Dr. George H. Murphy became its editor in due course, with all that that could mean in literary improvement, and when the time came for him to think in terms of a wider usefulness, his editorial mantle was made to fall upon this writer, and with it for some time thereafter, during some rather troublous times, came his invaluable moral support.

Dr. H. B. Atlee. Publicity in another field in which he is active might lead some to expect something of the lime-light in his medical activities as well. In this they would be disappointed, for though he can perhaps be said to have "laboured more abundantly than they all" in the cause of the BULLETIN, he did so for several years in a quietly co-operative way, until pressure from his practice and from his many other interests, obliged him to relinquish his part in editorial direction.

Now, chiefly for the same reason, comes another change. Though in the order of things the work of ones calling naturally increases, one would not be unduly pressed, were it not for the increasing demands from other directions upon ones time. For a while one is a "willing horse", but when those extras begin to crowd ones practice into a secondary position it is time to call a halt. That it should begin with the BULLETIN is because it is felt that in a voluntary system such as ours no one person should remain in office too long. So once again the torch has been passed on. (The "mantle" simile has been avoided here, for our successor is Dr. H. W. Schwartz).

Dr. Schwartz accepted the task in his usual manner, which arises out of his creed that in the matter of services which must be rendered for the common good, each should take a share. He accepts it because he feels he has no right to side-step with a "let George do it" as many are so prone to do. One feels that he rather naively expects *everyone* else to assume their corporate obligations similarly. But not only does he bring this profound faith in all mankind and in medical men in particular, he brings a lust for work, and a meticulous care for detail such as few men seem to possess.

We should like to record our thanks to those whom we have named as our benefactors and with them would couple the many others who have contributed to the success of the BULLETIN, and otherwise made our associations pleasant.

Given a personnel which could afford to give more time to its editorial demands this BULLETIN could well become an organ of great usefulness and great power in these Maritimes. We wish it to attain that destiny, but as a first necessity we must wish for it a deepening of that sense of proprietorship on the part of our members which says "this is *my* society and *my* journal", and a deeper sense of *obligation of medical citizenship* on the part of all our confreres which is so essential to greater corporate strength.

N. H. G.

CASE REPORTS

Accidental Haemorrhage.

Young married woman, aged 22 years brought into hospital complaining of pain in lower abdomen and bleeding per vaginum.

Family History reveals nothing of importance.

Personal History:—Ordinary diseases of childhood. Never had any serious illnesses or operations.

Menstrual History:—Periods started at 13 years of age. 28/4 day type. Patient is a primipara. Last period August 18th, 1935.

Present illness:—Patient at full term. Has never had any pre-natal examination nor has she ever seen a doctor during her pregnancy. One week before admission to hospital she noticed that she was bleeding p. v. At the same time she was aware of a slight pain in the lower abdomen. The pain became progressively worse and the bleeding assumed the nature of a frank haemorrhage. The patient was aware of fetal movements for some months previously but at this time she stated that she thought the baby was dead as she could not feel it moving around. Has never had any urinary symptoms and bowels are regular. No flashes of light nor oedema of the limbs.

Was seen by doctor on the night before admission when a diagnosis of placenta praevia was made and patient was rushed to hospital.

Physical Examination:—Thin pale looking young woman evidently suffering from shock.

Temperature:—98.6. *Pulse* 120. *Respiration*—24.

B.P.—64/38.

Examination of Abdomen:—Fundus corresponding to 10 lunar months. No movement of fetus felt, and fetal heart could not be heard. Fetal head is riding high and not engaged.

Vaginal Examination:—Liquid blood and clots being expelled. Os dilated 4-5 cm. A soft mass was felt through the Os which was thought to be the placenta. It was noticed however that the mass was much softer than the normal feel of a placenta. The presenting part could not be felt through the Os.

Diagnosis:—Placenta Praevia with an R. O. P. presentation.

It was decided that the patient was in too shocked a condition to undergo a Caesarian section. She was taken to the case room, packed, and given an intravenous of 1,000 c.c. glucose saline. This was at 12 noon. At 4 p.m. the Os was felt to be fully dilated. Patient was then taken to the operating room and the packing removed. The operator then introduced his hand into the vagina, pushed right through the mass which came away as one massive blood clot, manually rotated the head into an R. O. A. and applied high forceps. The head was delivered with a great deal of difficulty and the baby was born immediately after. Baby was a still-born normal sized male, the skin of which was greatly macerated. Patient lost a good deal of blood during the manoeuvre

and suffered a 2nd degree tear of the perineum. Perineum was sutured and another 1,000 c.c. glucose saline was administered. An ampoule of ergot and minims 5 Adrenaline were given. At 5 p. m. pulse was very feeble and could not be counted. B. P. 58/30. Respirations were rapid and shallow. At this time the patient was given another glucose saline, an ampoule of pitocin and Digitalin grs. 1/100.

At 5.30 p. m. 5% Carbon dioxide and 95% oxygen was administered but patient failed to respond and expired shortly after.

Final Diagnosis:—Accidental Haemorrhage.

H. DAVIS,

Interne, City of Sydney Hospital.

(Case of Dr. Townsend's)

Rupture of Intestine.

Mr. I. D. Age 34. Admitted to St. Joseph's Hospital, June 30, 1936. Occupation, miner. Complaint, strain of abdominal muscles.

Family History:—No history of hereditary disease.

Personal History:—O. D. C. with good recoveries. No rupture; denies V. D.

Present illness:—At nine o'clock on morning of admission patient states that he strained himself in the lower abdomen by the act of supporting a heavy drill in his arms. He worked till noon, then visited his doctor at the office. He walked in. At this time he was not suffering any great pain (sober also). The possibility of hernia was excluded, and physical examination revealed no rigidity and no other abnormality except slight tenderness on deep palpation over both lower quadrants. Patient wished to know if he should discontinue work for a day or two. At 7 P. M. that day he called the doctor.

Examination:—Patient was in a state of shock, temperature subnormal pulse rapid and he appeared to be in agony.

Abdominal Examination:—Abdomen scaphoid, no evidence of superficial injury.

Palpation:—Abdomen was board-like, tender especially in lower quadrant.

Treatment:—Case hospitalized at once. W.B.C. 20,500; Urinalysis, nil of note.

Exploratory Laparotomy revealed free fluid, foul smelling. A region of the lower end of the ilium covered with lymph and very hyperaemic was explored and a perforation $\frac{1}{8}$ inch long discovered with gas and faecal contents oozing. After a hasty further exploration the abdomen was closed in layers with drainage.

Drains were removed in two and one-half days. Fluctuating temperature on the ninth, tenth, eleventh and twelfth days; this settled down. The abdominal wall did not become infected. The patient was discharged on July 21st, 1936, recovered.

T. EARL GRANT, Dominion No. 1.

Department of the Public Health

PROVINCE OF NOVA SCOTIA

Office—Metropole Building, Hollis Street, Halifax, N. S.

MINISTER OF HEALTH - - - - HON. F. R. DAVIS, M.D., F.A.C.S., Halifax

Chief Health Officer - - - -	DR. P. S. CAMPBELL, Halifax.
Divisional Medical Health Officer - - - -	DR. J. S. ROBERTSON, Sydney.
Divisional Medical Health Officer - - - -	DR. J. J. MACRITCHIE, Halifax.
Director of Public Health Laboratory - - - -	DR. D. J. MACKENZIE, Halifax.
Pathologist - - - - -	DR. R. P. SMITH, Halifax.
Psychiatrist - - - - -	DR. ELIZA P. BRISON, Halifax.
Superintendent Nursing Service - - - -	MISS M. E. MACKENZIE, Reg. N., Halifax.

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Braine, L. B. W., Annapolis Royal.
Kelley, H. E., Middleton (Mcpy. & Town).

Murray, R. L., North Sydney.
Townsend, H. J., Louisburg.
Gouthro, A. C., Little Bras d'Or Bridge, (Co. North Side).

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MacKinnon, W. F., Antigonish.

Eaton, F. F., Truro.
Havey, H. B., Stewiacke.
Johnston, T. R., Great Village (Mcpy.)

CAPE BRETON COUNTY

Tompkins, M. G., Dominion.
Fraser, R. H., New Waterford.
Martin, H. J., Sydney Mines.
McNeil, J. R., Glace Bay.
McLeod, J. K., Sydney.
O'Neil, F., Sydney (County), South Side.

CUMBERLAND COUNTY

Bliss, G. C. W., Amherst.
Drury, D., Amherst (Mcpy.)
Gilroy, J. R., Oxford.
Stewart, Chas. E., Parrsboro.
Eaton, R. B., River Hebert (Joggins.)
Walsh, F. E., Springhill.

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Pothier, H. J., Weymouth, (Mcpy.)
Doiron, L. F., Little Brook.

GUYSBORO COUNTY

Chisholm, A. N., Port Hawkesbury, (M.H.O. for Mulgrave).
Sodero, G. W., Guysboro (Mcpy).
Moore, E. F., Canso.
Monaghan, T. T., Sherbrooke (St. Mary's Mcpy.)

HALIFAX COUNTY

Almon, W. B., Halifax.
Forrest, W. D., Halifax (Mcpy.)
Glenister, E. I., Dartmouth.

HANTS COUNTY

Bissett, E. E., Windsor.
MacLellan, R. A., Rawdon Gold Mines (East Hants Mcpy).
Reid, A. R., Windsor (West Hants Mcpy.)
Shankel, F. R., Windsor, (M.H.O. for Hantsport.)

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Chisholm, A. N., Port Hawkesbury.
Boudreau, Gabriel, Port Hood, (Mcpy. and Town).
MacLeod, F. J., Inverness.

KINGS COUNTY

Bishop, B. S., Kentville.
Bethune, R. O., Berwick (Mcpy.)
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Morash, R. A., Berwick.

LUNENBURG COUNTY

Marcus, S., Bridgewater (Mcpy.)
Reh fuss, W. N., Bridgewater.
Morrison, L. N., Magone Bay.
Zinck, R. C., Lunenburg.
Zwicker, D. W. N., Chester (Chester Mcpy).

PICTOU COUNTY

Blackett, A. E., New Glasgow.
Chisholm, H. D., Springville, (Mcpy.)
Bagnail, P. O., Westville.
Crummey, C. B., Trenton.
Dunn, G. A., Pictou.
Benvie, R. M., Stellarton.

QUEENS COUNTY

Ford, T. R., Liverpool (Mcpy.)
Smith, J. W., Liverpool.

RICHMOND COUNTY

Digout, J. H., St. Peters (Mcpy.)

SHELburne COUNTY

Brown, G. W. Clark's Harbour.
Fuller, L. O., Shelburne. (Town and Mcpy).
Wilson, A. M., Barrington, (Barrington Mcpy.)
Lockwood, T. C., Lockeport.

VICTORIA COUNTY

MacMillan, C. L., Baddeck (Mcpy.)

YARMOUTH COUNTY

Hawkins, Z., South Ohio (Yarmouth Mcpy).
Burton, G. V., Yarmouth.
Lebbetter, T. A., Yarmouth (M.H.O. for Wedgeport).
Chiasson, B. I., (Argyle Mcpy).

Those physicians wishing to make use of the free diagnostic services offered by the Public Health Laboratory, will please address material to Dr. D. J. MacKenzie, Public Health Laboratory, Pathological Institute, Morris Street, Halifax. This free service has reference to the examination of such specimens as will assist in the diagnosis and control of communicable diseases; including Kahn test, Widal test, blood culture, cerebro spinal fluid, gonococci and sputa smears, bacteriological examination of pleural fluid, urine and faeces for tubercle or typhoid, water and milk analysis.

In connection with Cancer Control, tumor tissues are examined free. These should be addressed to Dr. R. P. Smith, Pathological Institute, Morris Street, Halifax.

All orders for Vaccines and sera are to be sent to the Department of the Public Health, Metropole Building, Halifax.

Report on Tissues sectioned at the Provincial Pathological Laboratory from August 1st, 1936, to September 1st, 1936.

During the month, 215 tissues were sectioned and examined, which with 39 tissues from 6 autopsies, makes a total of 254 tissues.

Tumours, malignant.....	41
Tumours, simple.....	25
Tumours, suspicious.....	
Other conditions.....	149
Tissues from 6 autopsies.....	39

**Communicable Diseases Reported by the Medical Health Officers
for the month of August, 1936.**

County	Chickenpox	Diphtheria	Cerebro Spinal Meningitis	Influenza	Measles	Mumps	Paratyphoid	Pneumonia	Scarlet Fever	Typhoid Fever	Tbc. Pulmonary	Tbc.-other Forms	V. D. G.	V. D. S.	Whooping Cough	Erysipelas	German Measles	Glandular Fever	TOTAL	
Annapolis.....
Antigonish.....
Cape Breton....	..	8	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	11
Colchester.....
Cumberland....	1	..	..	..	..	1
Digby.....	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	2
Guysboro.....	1	..	..	1
Halifax City..	1	5	..	..	..	..	..	..	7	..	4	..	..	..	12	..	..	..	..	29
Halifax.....
Hants.....	4	..	..	..	..	..	..	4
Inverness.....	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Kings.....	2	..	..	..	..	2
Lunenburg....
Pictou.....	2	..	..	1	..	..	..	2	1	..	2	..	..	..	5	..	..	..	..	13
Queens.....	20	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	23
Richmond.....
Shelburne....
Victoria.....
Yarmouth.....
TOTAL.....	3	13	..	21	2	..	..	2	14	..	7	..	4	..	20	..	1	..	..	87

Positive cases Tbc. reported by D. M. H. O's. 73.

RETURNS VITAL STATISTICS FOR JULY, 1936.

County	Births		Marriages	Deaths		Stillbirths
	M	F		M	F	
Annapolis.....	21	16	6	8	7	0
Antigonish.....	11	9	2	9	3	0
Cape Breton....	89	90	69	36	26	6
Colchester.....	26	28	23	13	12	2
Cumberland....	32	37	20	15	16	3
Digby.....	13	17	12	12	5	1
Guysboro.....	31	24	6	7	6	1
Halifax.....	114	107	84	44	50	5
Hants.....	34	21	6	10	5	1
Inverness.....	10	11	3	14	8	1
Kings.....	19	17	19	11	6	2
Lunenburg....	31	25	18	16	12	2
Pictou.....	41	23	11	20	16	1
Queens.....	15	10	8	4	6	1
Richmond.....	12	13	1	14	6	0
Shelburne....	18	6	6	10	4	0
Victoria.....	3	2	2	1	6	0
Yarmouth.....	22	16	4	13	13	0
	542	472	300	257	207	26

REGISTRATION

83rd Annual Meeting Medical Society of Nova Scotia and 15th
Dalhousie Refresher Course, August 31st to September
4th, 1936, Halifax, N. S.

- G. A. Winfield, Halifax, N. S.
D. Murray, Tatamagouche, N. S.
C. M. Bethune, Halifax, N. S.
A. B. Campbell, Bear River, N. S.
H. W. Schwartz, Halifax, N. S.
D. Mainland, Halifax, N. S.
H. Giovannetti, Sydney, N. S.
A. C. McLeod, Caledonia, Queens Co., N.S.
H. B. Atlee, Halifax, N. S.
J. E. LeBlanc, West Pubnico, N. S.
H. K. MacDonald, Halifax, N. S.
V. O. Mader, Halifax, N. S.
A. L. Mellish, Hunter River, P. E. I.
John H. Budd, Cleveland, O.
P. A. Creelman, Charlottetown, P.E.I.
J. A. Noble, Halifax, N. S.
W. G. Colwell, Halifax, N. S.
E. F. Ross, Halifax, N. S.
H. G. Grant, Halifax, N. S.
W. F. MacKinnon, Antigonish, N. S.
Frank G. Mack, Halifax, N. S.
E. K. Maclellan, Halifax, N. S.
L. F. Doiron, Little Brook, N. S.
G. V. Burton, Yarmouth, N. S.
R. A. MacLellan, Rawdon Gold Mines, N.S.
R. F. Ross, Elmsdale, N. S.
H. E. Kelley, Middleton, N. S.
Hildegard Heard, Breslau, Germany
N. H. Gosse, Halifax, N. S.
Harvey Sutherland, Glace Bay, N. S.
F. A. Little, Halifax, N. S.
J. R. Corston, Halifax, N. S.
W. J. Keating, Halifax, N. S.
C. W. Holland, Halifax, N. S.
J. B. Reid, Truro, N. S.
A. M. Marshall, Halifax, N. S.
M. G. MacLeod, Whycomagh, N. S.
A. McD. Morton, Halifax, N. S.
J. C. Morrison, New Waterford, N. S.
C. E. Kinley, Halifax, N. S.
L. R. Meech, North Sydney, N. S.
F. O'Neil, Sydney, N. S.
W. Alan Curry, Halifax, N. S.
T. M. Sinniew, Halifax, N. S.
A. L. McLean, Halifax, N. S.
F. R. Macneil, Glace Bay, N. S.
Thos. B. Murphy, Antigonish, N. S.
Hugh F. McKay, New Glasgow, N. S.
R. S. Gass, Naskville, Tenn.
N. Barrie Coward, Halifax, N. S.
Grace Rice, Halifax, N. S.
Joseph Hayes, Halifax, N. S.
H. C. S. Elliot, Halifax, N. S.
T. B. Acker, Halifax, N. S.
J. W. MacIntosh, Halifax, N. S.
J. W. Reid, Halifax, N. S.
F. A. Minshull, Halifax, N. S.
M. G. Burris, Dartmouth, N. S.
G. D. Donaldson, East Ship Harbour, N.S.
Gordon Wiswell, Halifax, N. S.
J. A. Langille, Pugwash, N. S.
J. W. Merritt, Halifax, N. S.
B. E. Goodwin, Amherst, N. S.
David E. Rodger, Montreal, P. Q.
D. Drury, Amherst, N. S.
W. H. Robbins, New Glasgow, N. S.
E. T. Granville, Bedford, N. S.
J. M. Stuart, Halifax, N. S.
A. E. Blackett, New Glasgow, N. S.
A. Miller MacKay, New Glasgow, N. S.
C. B. Cameron, Petite Riviere, N. S.
A. L. Murphy, Halifax, N. S.
G. H. Murphy, Halifax, N. S.
H. J. Townsend, Louisbourg, N. S.
D. M. Rowlings, Musquodoboit Har., N.S.
Allan R. Morton, Halifax, N. S.
M. A. MacAulay, Halifax, N. S.
F. R. Davis, Halifax, N. S.
C. E. A. deWitt, Wolfville, N. S.
M. J. Chisholm, New Waterford, N. S.
G. M. Hatfield, Halifax, N. S.
Gordon A. McCurdy, Halifax, N. S.
F. V. Woodbury, Halifax, N. S.
L. P. Churchill, Shelburne, N. S.
P. S. Campbell, Halifax, N. S.
R. M. Benvie, Stellarton, N. S.
E. P. Brison, Halifax, N. S.
K. A. MacKenzie, Halifax, N. S.
F. F. Eaton, Truro, N. S.
M. G. Patterson, Dartmouth, N. S.
E. I. Glenister, Dartmouth, N. S.
R. C. G. Hawkins, Halifax, N. S.
C. H. Best, Toronto, Ont.
H. A. Collins, Halifax, N. S.
M. A. Curry, Halifax, N. S.
W. H. Pentz, Halifax, N. S.

- E. L. Frazell, New York City.
 Hugh R. Peel, Truro, N. S.
 W. J. MacDonald, Truro, N. S.
 W. J. Kennedy, Musquodoboit Har., N. S.
 A. R. Cunningham, Halifax, N. S.
 R. H. Stoddard, Halifax, N. S.
 S. W. Williamson, Yarmouth, N. S.
 C. L. Gass, Sackville, N. B.
 B. W. Skinner, Mahone Bay, N. S.
 E. M. MacDonald, Sydney, N. S.
 G. A. MacIntosh, Halifax, N. S.
 F. J. MacLeod, Inverness, N. S.
 O. B. Keddy, Windsor, N. S.
 K. A. Baird, Saint John, N. B.
 Channing Frothingham, Boston, Mass.
 F. R. Shankel, Windsor, N. S.
 V. D. Schaffner, Kentville, N. S.
 W. D. Forrest, Halifax, N. S.
 A. A. Schaffner, Halifax, N. S.
 Samuel Marcus, Bridgewater, N. S.
 A. R. Reid, Windsor, N. S.
 A. F. Weir, Freeport, N. S.
 D. S. McCurdy, Truro, N. S.
 J. C. Murray, Springhill, N. S.
 H. D. O'Brien, Halifax, N. S.
 W. R. Dunbar, Truro, N. S.
 J. J. Roy, Sydney, N. S.
 P. A. Macdonald, Halifax, N. S.
 C. E. Murray, Halifax, N. S.
 J. C. Wickwire, Liverpool, N. S.
 W. Donald Rankine, Halifax, N. S.
 Philip Weatherbe, Halifax, N. S.
 A. I. Mader, Halifax, N. S.
 H. V. Kent, Truro, N. S.
 J. W. A. Greig, Timmins, Ontario.
 W. J. Barton, Halifax, N. S.
 Ray MacLean, Halifax, N. S.
 M. R. Young, Pictou, N. S.
 T. A. Lebbetter, Yarmouth, N. S.
 M. J. Carney, Halifax, N. S.
 S. R. Johnston, Halifax, N. S.
 L. M. Morton, Yarmouth, N. S.
 B. F. Miller, New Waterford, N. S.
 C. C. Archibald, Truro, N. S.
 Arthur E. Doull, Halifax, N. S.
 A. Ernest Doull, Halifax, N. S.
 M. MacKay, Dartmouth, N. S.
 D. M. Grant, Noel, Hants Co., N. S.
 F. L. Hill, Parrsboro, N. S.
 J. C. Ballem, New Glasgow, N. S.
 J. J. MacDonald, New Glasgow, N. S.
 B. H. Calkin, Stellarton, N. S.
 C. E. Stuart, Parrsboro, N. S.
 T. R. Johnson, Great Village, N. S.
 Peter Hebb, Dartmouth, N. S.
 T. C. C. Sodero, Halifax, N. S.
 Audley A. Giffin, Montreal, Quebec.
 L. R. Morse, Lawrencetown, N. S.
 J. E. Hiltz, Kentville, N. S.
 J. W. Smith, Liverpool, N. S.
 H. E. Killam, Woodville, N. S.
 R. H. Sutherland, Pictou, N. S.
 Hermann M. Robertson, Victoria, B. C.
 G. A. Bars, Rose Bay, N. S.
 J. H. Couch, Toronto, Ontario.
 E. M. Curtis, Truro, N. S.
 J. C. Acker, Halifax, N. S.
 F. C. Lavers, New Ross, N. S.
 G. Ronald Forbes, Kentville, N. S.
 G. K. Smith, Hantsport, N. S.
 W. N. Rehtuss, Bridgewater, N. S.
 C. A. Donkin, Bridgewater, N. S.
 L. E. Kirkpatrick, St. Martin's, N. B.
 H. B. Havey, Stewiacke, N. S.
 T. A. Kirkpatrick, Kentville, N. S.
 L. N. Morrison, Mahone Bay, N. S.
 R. F. Farquharson, Toronto, Ontario.
 H. B. Barnhill, Bayfield, N. B.
 A. Linder, Halifax, N. S.
 T. C. Routley, Toronto, Ontario.
 F. T. Densmore, Halifax, N. S.
 H. A. Creighton, Lunenburg, N. S.
 H. L. Scammell, Halifax, N. S.
 G. A. Dunn, Pictou, N. S.
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Personal Interest Notes

DR. T. M. CREIGHTON, Dalhousie 1912, now of London, England, spent a two weeks' holiday during August, the guest of his parents, Mr. and Mrs. C. E. Creighton, Dartmouth.

The BULLETIN is glad to hear of the recovery of Dr. A. R. Reid, of Windsor, from a serious attack of pneumonia.

Dr. and Mrs. B. F. Miller, of New Waterford, have sailed for the Old Country where the doctor intends to spend some time in post-graduate study.

Dr. J. A. Lippencott, of Nice, France, has been visiting his sister, Mrs. W. B. Reynolds, Boulderwood, North West Arm, Halifax, for the past two months.

Dr. Evelyn F. H. Rogers, Dalhousie 1927, of New York, has been visiting her sister, Mrs. S. H. Keshen, Coburg Road, Halifax.

Dr. and Mrs. P. E. Belliveau of Meteghan are visiting in Montreal.

Dr. Hugh MacKinnon, who has practised at Berwick for the past eleven years has established himself at Armdale on the outskirts of Halifax.

Dr. Charles J. W. Beckwith, Dalhousie 1927, assistant medical superintendent at the Nova Scotia Sanatorium, Kentville, since 1929, has been granted leave of absence by the Provincial Department of Health to attend Toronto University where he will pursue special studies in hygiene and public health. Dr. Beckwith's application to the Rockefeller Foundation for a scholarship in this work was successful.

Dr. J. G. MacDougall, of Halifax, was elected President of the Medical Council of Canada for 1936-37 at a meeting held recently in Ottawa.

Dr. and Mrs. A. Ernest Doull, of Halifax, have returned from a month's holiday at Pictou landing.

Dr. F. D. Charman, of Truro, has left for an extended motor trip. The doctor plans to visit Toronto, travelling by way of Maine, New Hampshire and New York State, thence to Montreal where he will spend some weeks in post-graduate work at the Royal Victoria Hospital.

Mr. and Mrs. Alfred Skaling of New London, Conn., have announced the engagement of their daughter, Ruth Bruce, to Dr. Douglas K. Murray of Liverpool, son of the late Dr. Duncan Murray of Pictou, and Mrs. Murray, now of Halifax. Dr. Murray graduated from Dalhousie Medical School in 1935.

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The Sex Hormones and Their Value as Therapeutic Agents.

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34: 293, 1936.

Goldberg, M. B., Lisser, H.

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Watson, Melville C.

Observations on the Treatment of Dysmenorrhoea with the Placental Extract "Emmenin".

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Atkinson, A. J., Ivy, A. C.
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106: 515, 1936.

MacFarlane, Catharine
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A Syndrome Suggestive of Estrogenic Deficiency.

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The Therapeutic Effects of Estrogenic Hormone Preparations in Certain Cases of Idiopathic Epilepsy and in Migraine.

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91: 1275, May, 1935.

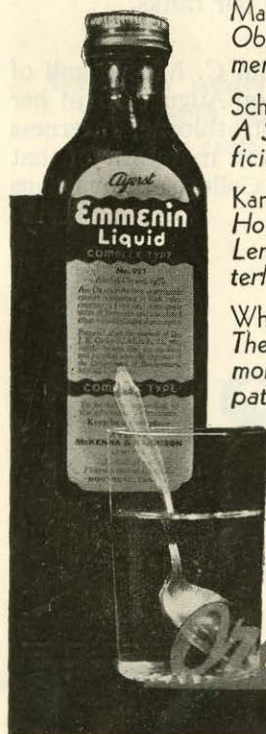
Glass, S. J.
Migraine and Ovarian Deficiency.

Endocrinology
20: 333, May, 1936.

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Dr. Carl F. Messenger, who has spent the last two years in post-graduate work in New York has returned and plans to establish practice in the Annapolis Valley.

Dr. K. K. Blackadar, surgeon on the C.N.S.S. "Prince Henry" spent a few days with his parents, Mr. and Mrs. J. A. Blackadar of Yarmouth, in August, and then joined his family for a short time at Prince's Lodge, Halifax.

Dr. and Mrs. A. K. Roy and family of North Sydney are on a motor trip through the New England States.

OBITUARY

The BULLETIN regrets to learn of the death of Dr. Duncan Alexander Campbell, of Bridgewater, who passed away suddenly at his home September 1st, death being due to heart failure. Dr. Campbell was in his thirty-ninth year, and had practised in Bridgewater for the past twelve years. He was particularly interested in Pathology and Bacteriology, and served as Pathologist to the Dawson Memorial Hospital for some years. Dr. Campbell took an active interest in athletics and was well known for his proficiency in golf and curling. He was a faithful attendant at the meetings of the Medical Society of Nova Scotia and will be greatly missed from our ranks.


Mrs. John C. Macdougall, wife of the late Dr. John C. Macdougall of Truro, well known physician and surgeon, passed away on August 9th at her residence in Truro. Mrs. Macdougall was a native of Strathlorne, Inverness County, daughter of the late Isaac MacLeod, a prominent merchant of that place. Her husband, who graduated from the New York College of Physicians and Surgeons in 1869, predeceased her in 1917.

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Fifty per cent of the sickness Rhumatism Artharitous and Lumbago are not from natural causes, but from the Divil, who can make us feel all kinds of sickness and pain, that is why the medical association cannot find any trace or cause of most sickness and pain. the only remedy for those people is to work harder and keep on the move all they want is will power. if they give up and Lay down He will make them worse. allso prayer. He has the power to do this. some cases of Rhumatism Artharituse and Lumbago are real and natural but Seven cases out ten are imagination and the Divil. the same applys to Heart trouble. the Divil gets into people and makes them feel Sickness and pain all over when there is nothing to Show. swelling or stiff joints the case is doughtfull you can be almost sure the Divil and imagination are playing on the mind of the perason. they aught to be tested. in those cases one can overcome his pain if He has the will power to endure the punishment he must go thro to fight it off for he has to fight the Divil and himself those 50 per cent it is not a doctor they want but a strong will if they havent got that they will Lose. because the Divil can fool the doctor He has the power to make one feel as if He were dieing. He can make the Clamis feeling come over this Body. Six times out of ten the doctor is fooled because He cant see anything and then again He can see a Lot that is not real or natural. those are hard facts to belive but they are real facts. from one went thro all this himself I fought of Rhumatizism and all sorts of pain and Sickness that dident realy exist attall. the more I worked the better I would feel and the more work I would want. but one must have the spirit and will power and Gods help to fight many deaths are caused by people giving in to those imaginary ailments that are none existent. they just give up without a fight or trying to find out if there are realy any sickness or pain. one thing they not think of and that is they are giveing up to the Divil. those are facts I proved them and fought the Battles many times over with the Help of God for we cant fight those Battles alone we must have him to help. doctors are called when they are not needed all is wanted is a good prayer and a strong will and they will conquire investigate some of those cases and find out for yourselves it is true.

Anonamous one who knows who went thro it all.

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Low Net.....	Dr. J. W. Merritt.	Cup (Birk's). 12 golf balls.	
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Low Gross.....	Dr. J. J. MacDonald.	Physician's Bag, (Maritime Surgical Supplies). 6 Balls.	
2nd Low Gross.....	Dr. J. J. Roy.	Box Cigars (Buckley's Limited).	
Low Net.....	Dr. C. C. Archibald.	12 golf balls (T. Eaton Co. Maritimes Ltd.)	
2nd Low Net.....	Dr. W. L. Muir,	3 golf balls. (Phinney Music Co. Ltd.)	
Junior			
Low Gross.....	Dr. F. A. Minshull.	Rolls Razor (MacDonald Hardware). 6 golf balls (Imperial Publishing Co. Ltd.)	
2nd Low Gross.....	Dr. L. M. Morton.	Yardley's Toilet Set (MacLeod-Balcom Ltd.)	
Low Net.....	Dr. E. K. Maclellan.	Searchlight (Simpson's).	
2nd Low Net.....	Dr. C. M. Jones.	3 balls.	
Fewest putts.....	Dr. R. P. Smith.	3 balls.	
Longest Drive.....	Dr. H. G. Grant.	Pen and Pencil set (E. B. Shuttleworth Chemical Co.)	
Sealed Holes.....	Dr. W. A. Curry.	6 balls.	
Highest Gross.....	Dr. N. H. Gosse.	1 ball.	
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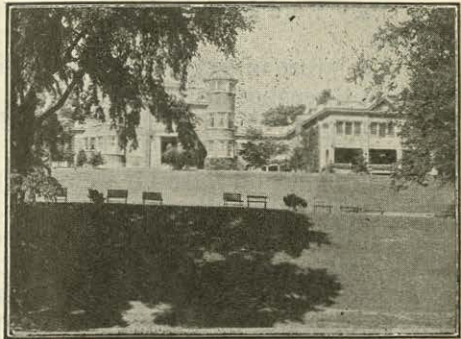
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