# *The* BULLETIN

OF THE

# VANCOUVER MEDICAL ASSOCIATION

Vol. XII. NOVEMBER, 1935 No. 2

NOV 5 - 193

## *In This Issue:*

B. C. MEDICAL ASSOCIATION PRESIDENTIAL ADDRESS

ANGINA PECTORIS

SURGICAL LESIONS OF THE KIDNEY

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THE VANCOUVER MEDICAL ASSOCIATION

# BULLETIN

*Published Monthly under the Auspices of the Vancouver Medical Association in the Interests of the Medical Profession.*

Offices:
203 Medical Dental Building, Georgia Street, Vancouver, B. C.

Editorial Board:
DR. J. H. MACDERMOT
DR. M. MCC. BAIRD DR. D. E. H. CLEVELAND

All communications to be addressed to the Editor at the above address

VOL. XII. NOVEMBER, 1935 No. 2

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# VANCOUVER HEALTH DEPARTMENT

STATISTICS—SEPTEMBER, 1935

| | |
|---|---|
| Total Population (Estimated) | 244,329 |
| Japanese Population (Estimated) | 8,037 |
| Chinese Population (Estimated) | 7,803 |
| Hindu Population (Estimated) | 276 |

| | Number | Rate per 1,000 Population |
|---|---|---|
| Total deaths | 174 | 8.7 |
| Japanese deaths | 6 | 9.1 |
| Chinese deaths | 13 | 20.3 |
| Deaths—Residents only | 139 | 6.9 |
| Birth Registrations: Male, 164; Female, 145 | 309 | 15.4 |

| INFANTILE MORTALITY— | Sept., 1935 | Sept., 1934 |
|---|---|---|
| Deaths under one year of age | 10 | 6 |
| Death rate—per 1,000 births | 32.4 | 21.4 |
| Stillbirths (not included in above) | 2 | 5 |

CASES OF COMMUNICABLE DISEASES REPORTED IN THE CITY

| | August, 1935 | | September, 1935 | | October 1st to 15th, 1935 | |
|---|---|---|---|---|---|---|
| | Cases | Deaths | Cases | Deaths | Cases | Deaths |
| Smallpox | 0 | 0 | 0 | 0 | 0 | 0 |
| Scarlet Fever | 20 | 0 | 21 | 0 | 22 | 0 |
| Diphtheria | 0 | 0 | 0 | 0 | 1 | 0 |
| Chicken Pox | 11 | 0 | 9 | 0 | 16 | 0 |
| Measles | 15 | 0 | 9 | 0 | 2 | 0 |
| Rubella | 0 | 0 | 0 | 0 | 0 | 0 |
| Mumps | 2 | 0 | 3 | 0 | 27 | 0 |
| Whooping-cough | 7 | 0 | 0 | 0 | 3 | 0 |
| Typhoid Fever | 2 | 0 | 2 | 0 | 0 | 0 |
| Undulant Fever | 3 | 0 | 0 | 0 | 1 | 0 |
| Poliomyelitis | 0 | 0 | 0 | 0 | 0 | 0 |
| Tuberculosis | 36 | 9 | 28 | 11 | 23 | -- |
| Meningitis (Epimedic) | 0 | 0 | 1 | 0 | 0 | 0 |
| Erysipelas | 1 | 0 | 3 | 0 | 3 | 0 |
| Encephalitis Lethargica | 0 | 0 | 0 | 0 | 0 | 0 |
| Paratyphoid | 2 | 0 | 0 | 0 | 0 | 0 |


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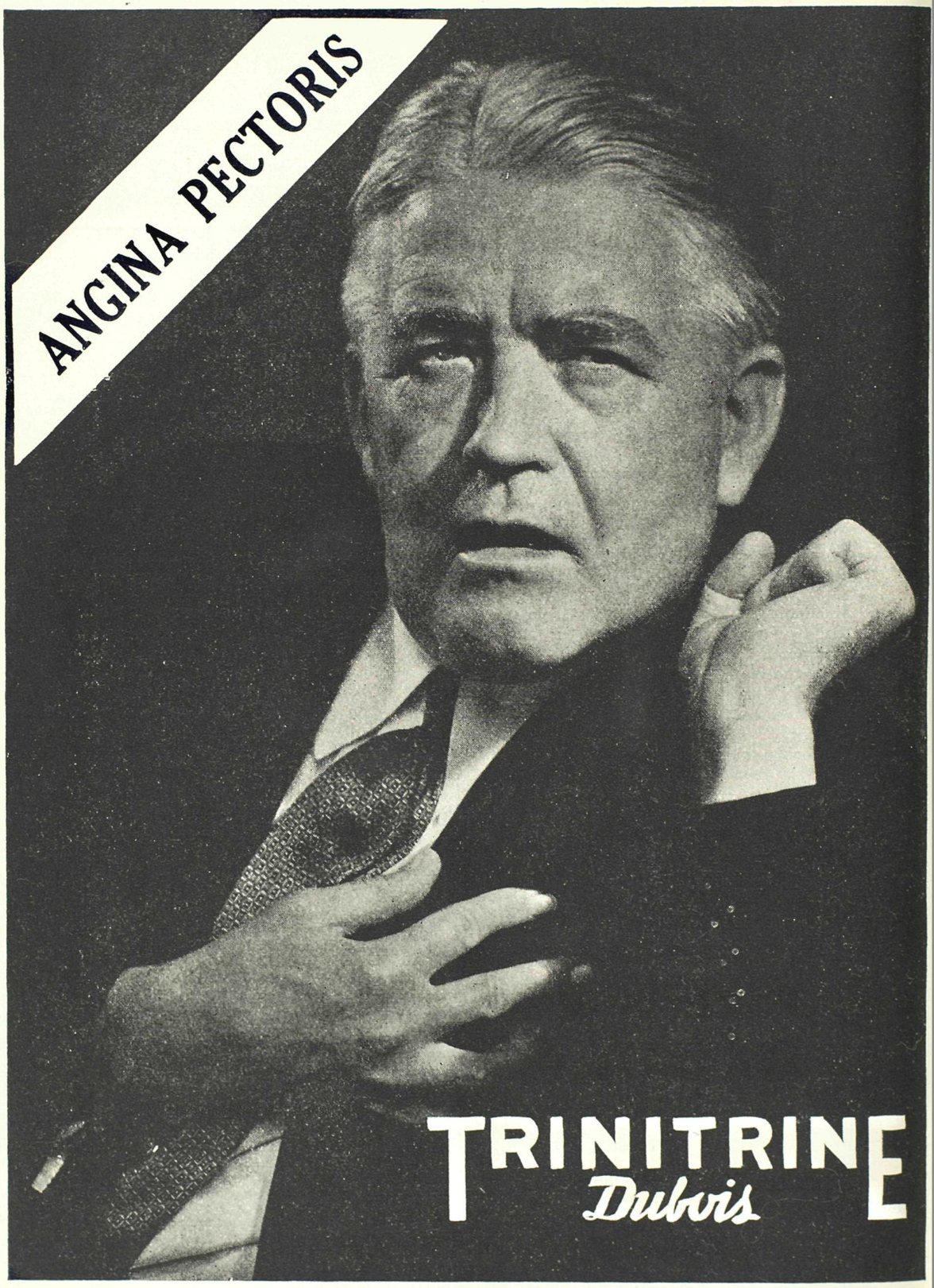


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# VANCOUVER MEDICAL ASSOCIATION

Founded 1898 :: Incorporated 1906

## Programme of the 38th Annual Session

GENERAL MEETINGS will be held on the first Tuesday of the month at 8 p.m.

CLINICAL MEETINGS will be held on the third Tuesday of the month at 8 p.m.

Place of meeting will appear on Agenda.

General Meetings will conform to the following order:

8:00 p.m.—Business as per Agenda.

9:00 p.m.—Paper of the evening.

1935.

October 2nd—GENERAL MEETING.

DR. G. F. STRONG: "Cardiac Pain."
*Discussion opened by* DR. H. A. DESBRISAY.

DR. A. M. AGNEW: "Vaginal Plastic Surgery."
*Discussion opened by* DR. J. J. MASON.

October 15th—CLINICAL MEETING.

November 5th—GENERAL MEETING.

DR. J. R. NADEN: "Epiphyseal Injuries."
*Discussion opened by* DR. F. P. PATTERSON.

DR. J. H. MACDERMOT: "Early Medical History of the B. C. Coast."

November 19th—CLINICAL MEETING.

December 3rd—GENERAL MEETING.

DR. LYALL HODGINS: "Diabetes."
*Discussion opened by* DR. WALLACE WILSON.

DR. FRANK TURNBULL: "The Early Diagnosis of Brain Tumours."
*Discussion opened by* DR. F. W. EMMONS.

December 17th—CLINICAL MEETING.

1936.

January 7th—GENERAL MEETING.

DR. WALTER M. PATON: "Tumours of the Head and Neck."
*Discussion opened by* DR. H. H. PITTS.

DR. B. J. HARRISON: "Roentgenology of Cardiac Diseases."
*Discussion opened by* DR. G. F. STRONG.

January 14th—CLINICAL MEETING.

February 4th—GENERAL MEETING.

MR. J. W. DEB. FARRIS: "Medico-Legal Problems."

February 18th—CLINICAL MEETING.

March 2nd—OSLER LECTURE.

April 7th—GENERAL MEETING.

DR. C. E. DOLMAN: "Serum Therapy."
*Discussion by* DR. HOWARD SPOHN AND DR. A. Y. MCNAIR.

April 21st—CLINICAL MEETING.

April 28th—ANNUAL MEETING.

# EDITOR'S PAGE

An interesting study that might some day be undertaken, preferably by a hard-headed, mathematically-minded Scotchman of the actuarial type of mind, would be the matter of "vested interests," as we call them—how they begin, how they grow, and their effect on society. Somebody plants a seed in good soil, and we don't know whether it will grow into a cactus or a banana palm until it has grown and taken firm root and established, so to speak, a claim for existence.

There are vested interests and vested interests. Some are frankly pernicious, others are beneficial and useful; all have one thing in common: like Frankenstein's statue, they are quite different from what they started out to be, and full of all sorts of unsuspected potentialities, some of which are not quite as innocent as they appeared at first to be.

To "cut the cackle and come to the 'osses," we are indulging in these flights of fancy, inspired thereto by the reading of a book written by an old acquaintance of ours, Dr. Malcolm T. McEachern, formerly General Superintendent of the V. G. H. The book is entitled "Hospital Organization and Management," and is a monumental piece of work. It is in many ways a unique book. Primarily it is intended as a textbook of the subject which gives it its name, but is prefaced with a short but quite vivid and interesting history of hospitals. Dr. McEachern early refers to his King Charles' head, viz., the standardisation of hospitals, and expatiates on the virtues of this step. He is no doubt right, and yet an unregenerate corner of our soul refuses to accept standardisation and the somewhat Fascist attitude adopted by the American College of Surgeons as the final key to happiness and complete success.

However, this is heresy. He then plunges *in medias res* of his subject, and from then on the book is a masterly summary, and most amply documented account of hospital organisation. Nothing is forgotten—not even the patient. For instance, we open the book at "The Minimum Standard." There are five standards. The first four deal entirely with organization, the last refers to "the necessity for diagnostic and therapeutic facilities . . . for the study, diagnosis and treatment of patients."

If one were preaching a sermon, one would need a text. Our opening remarks referred to vested interests, and their departure in many details from the original ideals with which, or as a result of which, they came into being. No better text could we find than the curious fact referred to above, that in defining the objects of a hospital, the care of the patient is put last.

That this is not Dr. McEachern's ideal is shewn by his own definition of the first function of hospitals, which is "to care for the sick."

Still, it is interesting to trace the growth and the trends of thought and development which have made it possible for any organisation to place last the purpose for which it was first designed, and to put first the educational and organisational aspects of its work. These aspects are important—very important—but they should surely be secondary. And it is where they are put first that the interests of the sick person, who is really the one important consideration, may suffer somewhat.

The hospital is today a great school—for nurses, for doctors, and, as we are sometimes reminded in this book, for the public. We are told that it is a "health centre" whence radiate knowledge of health, and education in preventive medicine; whence social service emanates; round which cluster the temples of community medicine. This is all as it should be, if it was so—

but is it always so? True, we have clinics, and immunizing depots, and pure milk stations and chest clinics—and they all do excellent work. But we cannot help feeling that a hospital is, after all, one of the doctor's main weapons against disease, and in our earnest desire for prevention, inadequately supplied as it must needs be by the hospital, we may overlook or impair our real *raison d'etre,* treatment. Prevention we must have, far more indeed than we now have, but we question, in our old-fashioned way, whether the hospital is the place for it. Perhaps some day we shall have the courage to tell the public that the hospital is the place for the sick, and that prevention should be carried on in specially designed institutions—where it can grow to full stature itself, and neither hamper, nor be hampered by, its sister, therapeusis. In this way, prevention of disease would assume the importance that we should attach to it; at present it is a sort of Cinderella of medicine, and gets what is left over after the main business of the hospital is done.

The book has a remarkable series of pictures, rather of the poster type of picture, and admirable bibliographies. It should be a very valuable reference book for all hospitals; and we most sincerely congratulate the writer on the work he has done.

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### ANNUAL DUES

Members of the V. M. A. are reminded that annual dues for the current year should have been paid on April 1st and are now seven months in arrears.

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## NEWS AND NOTES

We publish in this number an open letter from Dr. H. H. Milburn, president of the B. C. Medical Association. We are heartily in accord with his suggestions and appeal for endorsement. We feel that the most important step we can take is to consolidate the *Canadian* medical profession. As provincial bodies we are almost if not quite helpless; as a national body we could "speak with our enemy in the gates" in tones that no political Mussolini could shout down.

We *must,* as Dr. J. C. Meakins pointed out in his address while here, organise nationally. Our very bread and butter, not to mention all medical progress in Canada, depends on our unity and coherence. For a very slight additional fee, we can obtain inestimable benefits; and no man can lightly disregard this challenge, for his own sake, if not for those of his colleagues and profession.

* * * *

Dr. Murray Meekison is in San Francisco. He expects to be gone about three weeks, and will take the meeting of the A. C. S. in his stride.

* * * *

A weeding of much interest took place at Marpole United Church on October 5th when Dr. E. E. Day was married to Miss Gertrude Douglas of Vancouver. Dr. R. P. Kinsman was "best man" when the gong sounded but at the last moment the decision went to Dr. Day. The winner and his bride then left for a journey to California.

* * * *

Dr. A. C. Des Brisay and Dr. Taylor Henry left for the Mayo Clinic on October 15th. After learning what it is all about, they expect to return home by way of San Francisco about the beginning of November.

We note with regret that Dr. W. D. Brydone-Jack is in the General Hospital as a patient. We wish him a speedy return to health and activity.

* * * *

As also to Dr. A. Mack Warner, who has been ill for quite a while, but at the time of writing is feeling a good deal better.

* * * *

We note the name of Dr. C. F. Covernton as away from the city. His son has recently entered McGill.

* * * *

Dr. A. B. Schinbein has left for San Francisco, where he will attend the meeting of the American College of Surgeons.

* * * *

Dr. Gordon James, formerly with the Granby Consolidated Mining & Smelting Co. at Anyox, is now with the Britannia Mining Co.

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## MEETINGS

At the opening meeting of the 1935-36 session of the Vancouver Medical Association Dr. J. W. Thomson presented a report of a very successful Summer School. An exceptional feature this year was that although the B. C. Medical Association had offered to make up any deficit within certain limits, there turned out to be no deficit but a surplus of funds. In the course of his report Dr. Thomson paid warm tribute to the very efficient secretaryship of Dr. J. E. Walker. He recommended that the 1936 Summer School be held in September on account of the Canadian Medical Association meeting in June, and that the B. C. Medical Association be asked for a regular grant of $500 towards the Summer School. This was put in the form of a motion and carried.

The election of Dr. F. J. Nicholson to life membership was moved by Dr. G. F. Strong, seconded by Dr. J. W. Thomson, and passed unanimously. Dr. Nicholson's generous contributions to the Library are known to all the members.

The Chairman, Dr. C. H. Vrooman, drew attention of the meeting to the register now prepared and requested members to call in at the Library and fill in the data concerning themselves for the edification of future members of the Society. It is hoped that these will be a little more informative and detailed than that of the Jewish merchant who was asked to fill out a form for the immigration authorities. After stating his name he put after the word "born" the simple affirmative "yes" and after the word "business" the comprehensive statement "rotten."

The announcement was made of the resignation of Miss Firmin, the Librarian. The members were requested to make themselves known to Miss Choate.

A tentative announcement was made of a special meeting to be held on the last Tuesday in October to pass the new by-laws and possibly to discuss further the matter of Health Insurance.

Dr. A. C. Frost and Dr. J. R. Naden were elected by acclamation to the Summer School Committee.

Some innovations were announced concerning the presentation of papers at meetings during the coming session. The time of twenty minutes and not more is allotted to the reading of the paper and the presentor will be given three minutes warning of the time when his presentation must terminate. Speakers are requested to appear in evening dress. Two papers will

be presented at each meeting and one person selected to open the discussion, with a short time allotted to others who may wish to follow him.

The first paper of the evening was by Dr. G. F. Strong on the subject of "Cardiac Pain." In view of the number of categories under which this subject might be discussed, Dr. Strong decided to limit himself to the subject of the pain of angina pectoris. His lecture appears in full in this issue.

The second paper of the evening was given by Dr. A. M. Agnew on "Vaginal Plastic Surgery, illustrated by an excellent series of diagrams. The paper was discussed by Drs. Mason and Arbuckle, and several other members.

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## OPEN LETTER TO MEMBERS OF THE B. C. MEDICAL ASSOCIATION

Dear Doctor:

At the Annual Meeting of the B. C. Medical Association in Vancouver on September 20th last a resolution was moved by Dr. Hodgins, "That our Executive be given power to so change our constitution that it be known as the Canadian Medical Association, B. C. Division, and that in addition our Executive take such steps as are necessary to finance the undertaking." This was passed unanimously and is a mandate, I take it, for the present Executive to confer with the Council of the College of Physicians and Surgeons and consummate the change with the least amount of delay.

Under the "optional plan" as adopted by the Canadian Medical Association at Atlantic City last June, a "Division" is a provincial association which has merged its identity in that of the Canadian Medical Association and is known as the Canadian Medical Association (name of province) Division. All its members are members of the Canadian Medical Association and are entitled to its rights and privileges, including subscription to the *Journal*. A division sets its own membership fee but includes for each member a sum to be determined by the General Council for national administration. Here again this sum could be at least 20 per cent lower than the $10.00 charged for members of branch associations.

Each Division nominates its own representatives on the General Council, Nominating Committee and Executive Committee of the Canadian Medical Association, the elections being left in the hands of the General Council.

In order to become a Division *all* members of the B. C. Medical Association must become members of the Canadian Medical Association, the additional fee to be $8.00 instead of the $10.00 Canadian Medical Association fee now in effect—subscription to the *Journal* is included. This will make the combined fees of the College of Physicians and Surgeons ($12.00) and the Canadian Medical Association ($8.00) $20.00. We now have some 324 members of the Canadian Medical Association in B. C., roughly half of the members of the B. C. Medical Association. These members will save 20 per cent of the present Canadian Medical Association fee by the change.

Naturally one asks how will this change affect our position? I feel sure that everyone who gives this matter careful thought will realize that it will materially strengthen it. Instead of being a provincial organization affiliated only with the Canadian Medical Association, we will be an integral part of a national federation still maintaining our own organization, and should emergencies arise, such as the present pending Health Insurance legis-

lation, we would be able to have the full strength of the national association behind the profession here. This point was very emphatically stressed by Dr. Routley at our Annual Meeting last month. The increased revenue of the Canadian Medical Association will allow for more post graduate activities on the part of that body we are assured, and probably increased secretarial services, with the possibility of a Western Secretary being appointed. Alberta has already become a Division, and other provinces are in the process of doing so. I am sure all must agree that medicine in Canada now more than ever before is in need of strong effective organization—the larger it is the more effective it will be.

Your Executive feels that the sooner this change is accomplished the better, particularly since the proposal has met with such widespread approval on the part of the profession of the province—so far I have heard from no objectors. To this end we are earnestly requesting the support and co-operation of all members of our Association in the move which it, at its Annual Meeting this year, authorized us to make. The Council of the College of Physicians and Surgeons we trust will lend its full assistance, particularly in arranging the financial end of the undertaking. Your Executive will do its utmost to carry out your expressed wishes.

Faithfully yours,

H. H. MILBURN.

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## PRESIDENTIAL ADDRESS

DR. H. H. MILBURN

It was imperative that Dr. A. D. Lapp, our President, be in Toronto by the 17th of the month, making it impossible for him to be present at this meeting and preside. It must have been a great disappointment to him, having given, as he did, a great deal of time and thought to the interests of our Association, particularly during the past two years. He was keenly interested in the success of this meeting. I very much regret his absence and only hope in filling his place I have been able to measure up in some degree to the necessities of the occasion.

In reviewing the work of the B. C. Medical Association during the past year permit me to comment briefly on the activities of the various committees. First, that of the Cancer Committee under the chairmanship of Dr. J. J. Mason. Dr. Mason has been particularly interested in this work for a number of years and was largely instrumental in establishing a cancer section in our local association in Vancouver. When the impetus for renewed activity in cancer study was supplied by the drive for funds throughout Canada by the King George V Jubilee Cancer Fund, he was the right man in the right place. Taking advantage of the opportunity offered by the drive, he organized a large representative committee including men from the various local associations throughout the province, nad began a careful study of our needs in British Columbia, at the same time supporting the Jubilee Campaign as much as possible. The B. C. Cancer Foundation was really initiated by Dr. Mason's committee when it invited two representatives from the Health Bureau of the Vancouver Board of Trade and two from the Greater Vancouver Health League to meet with two representatives from his own committee to discuss ways and means of meeting the urgent problem of cancer treatment iin British Columbia. The Cancer Foundation of B. C. is now an active organization incorporated under the Societies Act of the province, with prominent laymen from nearly every

section of B. C. on its Board of Governors. They are keenly interested and are very much alive to the situation. The Foundation is making arrangements for an active campaign to raise funds in the near future and government support has already been assured. I feel confident that facilities for the efficient handling of this most dread disease will be very markedly improved in the not far distant future through this organization. The present objective is the establishment of a Cancer Institute at some central point with, perhaps, cancer centres elsewhere in the province. A very cursory examination of our present equipment for treating cancer in B. C. will show the great need for this. We are pleased to note this activity in our Association and through our Cancer Committee the profession must continue to sponsor and give leadership in this work. Let me urge all local associations to have active Cancer Committees keeping in touch with what is going on elsewhere in the province through their representatives on the Provincial Committee, so that when any movement like a province-wide drive for funds takes place they will be able to give it the proper medical support in their localities.

The work of the Programme and Budget Committee under Dr. Strong has surely shown its activity and efficiency in arranging this convention. It speaks for itself and needs no comment from the Chair. All I will say further is that I have attended conventions which were no better and in some instances not as good at which registration cost me more than the $12.00 we have paid for our membership in the College of Physicians and Surgeons of B. C., which includes our registration at this meeting.

At the Annual Meeting of the B. C. Medical Association at Kamloops last year we had the opportunity for the first time of meeting as the College of Physicians and Surgeons of B. C. and hearing directly from the members of the Council a report of the activities of that body—we were privileged to discuss with them the problems they were handling for us. At 8 o'clock tonight we shall again have that opportunity, and with Health Insurance the vital question of the day, it should be a very important meeting, to say the least. I feel that we are particularly fortunate at this time in having an organized body, representative of the whole profession of the province, responsible for our economic interests. The work of the Health Insurance Committee under Dr. Ainley has made it possible for us to have the proposed Health Insurance Bill carefully studied from the medical man's standpoint, and I hope it will allow us to present a united front in the matter of Health Insurance. The reorganization of the two provincial bodies, namely, College of Physicians and Surgeons and B. C. Medical Association, which was completed two years ago, has already justified tself, I feel. Certainly every member gets his $12.00 worth this year.

Dr. Amyot, on behalf of the Health Committee, has given us some very valuable suggestions, and if we are able to take advantage of these some of the work now done by Public Health bodies should be diverted to the practising physicians to their advantage. Study and co-operation on our part, through our own committees, both local and provincial, on health matters, may do a great deal for us. I cannot emphasize too strongly the value of committee work.

Dr. Prowd's report as Chairman of the Constitution and By-laws Committee is important. The change in our by-laws made tonight makes provision for a larger executive by the addition of a Second Vice-President and the Chairmen of Standing Committees: most of these committees are similar to standing committees of the Canadian Medical Association. The Chairmen

of these provincial committees are to be members of the similar Canadian Medical Association committees. This arrangement was initiated by the Canadian Medical Association executive this year and should insure better committee work than formerly, as the Chairman of a provincial committee naturally will be a keenly interested man and should be able to represent his province better than one who is chosen by the Canadian Medical Associa-ion. By this arrangement standing committees of the Canadian Medical Association shoud be very representative of the whole Dominion. This should harmonize the organization work of the profession throughout Canada a great deal.

I would like to see this arrangement carried out still further and similar standing committees to those of the Canadian Medical Association and Provincial Associations appointed by the local societies, the chairmen of the local association committees to be automatically members of the Provincial Committee. This would make the Provincial Committee a representative body also, representing in this instance all the local societies of the province. It strikes me that this would create much more interest in medical affairs by the profession generally. We need now, more than ever before, better and more effective organization in facing our problems. These cannot be solved by individual action any longer. We simply must see to it that only men who are interested and are willing to give both time and thought to the work they undertake are selected to represent us. If we build from the bottom in this way we should have a strong organization fully capable of handling our many and increasingly complex problems. Among other things, medicine has considerable house-cleaning to do and the sooner we do it the better.

The Publicity and Educational Committee under Dr. Purvis has worked largely with the Cancer Committee this year and its part has been reflected in the excellent work of that committee.

Dr. Cleveland through B. C. news in the Canadian Medical Association *Journal* and the *Bulletin* of the Vancouver Medical Association has kept B. C. medicine in the limelight every month. He is an excellent editor and is constantly on the lookout for news of interest to the profession.

You can see from this brief summary that your committees have not been idle during the year. They have accomplished a great deal and have begun valuable work in several directions which I trust will be carried forward by their successors. If men will offer themselves more willingly and whole-heartedly to the study of our medical problems in committee work I am sure both medicine in general and they themselves will reap abundantly. There is one matter I must mention before closing which we will have to deal with shortly, and that is closer union of the Provincial Association with the Canadian Medical Association. Under the revised constitution of that body each Provincial Medical Association is recognized as a branch of the Canadian Medical Association and shall be represented in the general council and the executive of that body. Sholl we become a Division of the Canadian Medical Association and change our name to the Canadian Medical Association B. C. Division? At the meeting in Atlantic City two plans were submitted—the "All-or-None Plan" and the "Optional Plan." These are fully explained in the supplement of the September issue of the Canadian Medical Association *Journal,* which I hope you have all read. The Optional Plan was adopted, as follows:

> A Provincial Association may, by resolution of its governing body, become either a Branch or a Division of the Canadian Medical Association.
>
> Members of a Branch Association are entitled to membership in the Canadian

Medical Association and to all its rights and privileges, including subscription to the *Journal*, on payment of the annual fee.

A Division is a Provincial Association which has merged its identity in that of the Canadian Medical Association and is known as the Canadian Medical Association (name of Province) Division. All its members are members of the Canadian Medical Association and are entitled to all its rights and privileges, including subscription to the *Journal*. A Division sets its own membership fee, but includes for each member a sum to be determined by the General Council for National administration. Here again it has been shown that this sum could be at least 20 per cent lower than the $10.00 fee of members of Branch Associations.

Each Branch or Division has representation on the General Council and on the Executive Committee irrespective of its official status, but a Division, as in the "All-or-None" plan) nominates its own representatives on the General Council, the Nominating Committee and the Executive Committee, the elections being left in the hands of the General Council.

You are aware that two years ago we adopted a plan in British Columbia similar to that which had been operating in Alberta for a number of years, where the Alberta Medical Association joined with the College of Physicians and Surgeons of that province in a combined scheme, the Council of the College of Physicians and Surgeons undertaking to look after the economic part of the work and the Alberta Medical Association the educational and scientific part. A single compulsory fee was set to finance the operation of the two bodies. It has worked very satisfactorily in Alberta and so far has done so here. (When the Council appoints a full-time Executive Secretary it will perhaps operate even better.) How does this affect our becoming a Division of the Canadian Medical Association? If the Council of the College of Physicians and Surgeons could legally make grants to us as Canadian Medical Association (B. C. Division) we may be able to become such. There is a legal point to settle in this and at our request the Council is having it investigated. If it finds it can legally do this, then the whole matter will have to be submitted to the medical men of the province for their approval, as there would have to be an extra fee of $8.00 per member charged to take care of the membership in the Canadian Medical Association including the *Journal*. The Alberta Medical Association has recently revised its by-laws with this object in view apparently. Dr. Prowd in his report has made brief reference to it. I personally am in favor of it as it would make for a much stronger organization and certainly would have greater influence in any part of Canada where influence was required—for instance, Health Insurance in British Columbia. A government would respect the opinions of an organization representing the whole profession of the Dominion more than that of a single province. As the Canadian Medical Association (B. C. Division) we could draw on the resources of the whole Canadian Medical Association, as what would affect any part of the Canadian Medical Association would consequently affect the whole. However, this is a matter for the new Executive and new Constitution and By-laws Committee to undertake. This is where a representative Committee would operate to advantage. The federation of committee work as I have suggested earlier in this report seems to be to be an ideal working arrangement .

Time does not permit me to deal more with this matter at this time but I trust the opportunity will present itself in the near future for so doing.

I take this opportunity of expressing the sincere thanks of both Dr. Lapp and myself to the members of the Executive and the Committees of this Association for their excellent work and generous support during the year. I cannot imagine anything more interesting and instructive than the discussions that took place in many of our Executive meetings. All expressed

themselves freely and very fairly, and in nearly all matters under discussion definite agreement was reached.

We particularly wish to express our sincere thanks to our retiring Secretary, Dr. Ethlyn Trapp, for her excellent services during the past two years. She has given very generously of her time and talents in the interests of our Association, especially this year in our Cancer activities. We trust that her contemplated trip to Europe will be fruitful and pleasant.

I also wish to thank this Association for the high honour it has done me in electing me President and hope and trust that I may be able in some way to merit your confidence. I shall do my best.

In closing I wish to remind you that the Canadian Medical Association Convention will be in Victoria next June and the generous support of this Association must be behind Victoria medical men in the task that lies before them.

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## ANGINA PECTORIS

G. F. Strong, M.D.

Ten years ago I read a paper to this Association on Cardiac Pain, and it occurred to me that it might be of interest and some value to bring that subject down to date. In the previous paper heart pain was classified as: (1) simple fatigue pain such as occurs in some cases of long standing valvular disease, vascular hypertension, and in certain of the arrhythmias such as paroxysmal tachycardia or fibrillation; (2) the pain of nervous irritable heart, the so-called effort syndrome or neurocirculatory asthenia; (3) the pain of angina pectoris, and (4) most severe of all, the pain of coronary thrombosis. Tonight I am going to discuss angina pectoris, choosing this type of heart pain because of the apparent increase in this interesting and important cardiac condition.

Ten years ago we were witnessing the long argument between the so-called "aortic" and "coronary" schools of thought regarding the origin of anginal pain. Allbutt had maintained that angina occurred as a result of irritation of sensory nerves in the wall of a diseased aorta. McKenzie and others had expressed the idea that the pain of angina arose from the heart muscle as a result of disturbance in the circulation through the coronaries. At the present time the trend of medical opinion is toward this myocardial-coronary idea. The only way that aortic disease can produce angina is through narrowing or puckering of the orifices of the coronary arteries in the aorta with a resulting diminution in blood flow to the heart muscle. The best argument in favor of the coronary theory of angina is the fact that the pain in coronary thrombosis is so similar to the pain of angina, in character, in location and in radiation, differing only in severity. The reduction in coronary circulation is brought about in different ways, as by coronary spasm, by actual coronary narrowing (coronary sclerosis), or by relative coronary narrowing as when the stiffened coronaries are unable to dilate to meet the increased demands made on the heart during exertion or excitement. The coronary circulation that may be adequate when the patient is at rest may be entirely insufficient when the heart rate is suddenly increased. Pain probably develops when the reduced blood supply leads to an anoxæmia and permits the accumulation of the end products of muscular activity. Just how this pain is produced and just which of the metabolites proves irritating to the sensory nerves

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Read at meeting of the Vancouver Medical Association, October 1, 1935.

ending is still obscure. The nerve pathways by which the sensation reaches the level of consciousness are now fairly well determined, and this knowledge has enabled surgeons to give some of these cases relied.

The sensation described by angina patients varies from a severe pain to a mild distress or oppression. The adjectives are aching, burning, gnawing, boring, gripping, tearing, twisting. In the milder forms there is a sensation of weight, pressure, or discomfort. The commonest site of the pain is under the middle of the sternum and it is generally true that while in rare cases the pain of angina may occur elsewhere, in the great majority the sensation is localized to the centre of the chest. So true is this that the diagnosis must be regarded with suspicion where the only pain or distress occurs elsewhere and in such cases there must be confirmatory evidence such as the existence of organic heart disease, coronary sclerosis or hypertension, or the distress must be definitely and constantly associated with a given amount of exertion. There is often an association with flatulence, a fact which leads to a diagnosis of indigestion. A distended stomach may easily precipitate an attack of angina by the upward pressure causing torsion of the heart with consequent angulation of one or both coronary arteries. Invariably angina is brought on at first by exertion or excitement and is induced more readily by exercise immediately after a meal, and in cold weather. The duration of the pain is important, for in angina the typical attack is transient, lasting from a few seconds to 15 or 20 minutes. Pain that lasts over half an hour and certainly that persisting for more than one hour is most unlikely to be the result of uncomplicated angina. These longer attacks suggest mild coronary thromboses, of which there are probably a great many more than we realize. Aortitis may also give rise to more lasting pain, as may other non-cardiac causes to be mentioned later. The text book description of angina is apt to stress radiation of the pain down the left arm. While it is possible to have radiation to either arm, more commonly the left, it is by no means an essential feature of the attack. In rare cases the attack may start with pain or discomfort in the wrist or elbow which then spreads to the substernal region. Other non-cardiac conditions may cause distress down the arms. There are certain other manifestations that occur in these patients which might be designated as anginal equivalents. The commonest of these is cardiac asthma and the more serious pulmonary œdema, both of which probably arise as evidence of weakness of the left ventricle consequent upon coronary sclerosis. Many patients with angina develop cardiac asthma as a terminal event and these patients invariably exhibit evidence or coronary sclerosis.

The diagnosis of angina pectoris must rest on the patient's own story. No doubt an intelligent and informed malingerer could deceive the most astute diagnostician. The story told by a neurotic patient full of aches and pains must be distinguished from the definite effort distress as detailed by the stoic. Often we can judge the patient fairly accurately in the course of our first examination and gain an idea as to his interpretation of pain. It is well known that a given stimulus may produce pain in one patient, a mild distress or discomfort in another, and absolutely no sensation in a third. Where there is difficulty in deciding the type of patient we are dealing with there are several methods of gaining insight on this point and we must attempt to classify our patients into the hypersensitive, the normal or the hyposensitive group. One simple procedure that I have found helpful in this regard is to observe their reaction to the taking of their blood pressures. Some few hypersensitives complain bitterly during the

time the pressure is elevated in the cuff. Another useful observation is their reaction to dental work—some hypersensitive individuals cannot stand any sort of work requiring a drill without the use of a local anæsthetic, whereas, at the other end of the scale, the hyposensitive individual submits to anything, even extraction, without any anæsthetic and without much discomfort. Libman many years ago suggested the simple procedure of cousing pressure on the styloid process and studying the patient's reaction. Osler suggested steady pressure on the sternum just above the attachment of the iphoid which causes a disagreeable gnawing ache that is disturbing even to a normal person. By the application of one or more of these tests we can classify our patient and this will go a long way to help us to evaluate the significance of his symptoms.

Angina is more common in men than women, a fact which should make us regard with suspicion the extremely atypical case in a woman. It is not necessarily a disease of old age but may occur in the thirties, though the commonest age is the late forties or early fifties. It is essential to take a careful record of the patient's own sensations in his own words. In the great majority of cases this simple record will establish the diagnosis. Physical examination and an x-ray and an electrocardiogram merely confirm and the latter methods furnish a graphic record of the condition. In most of these patients there is a hypertension, evidence of generalized arteriosclerosis, or organic heart disease. Some few will present entirely normal physical findings. It is possible for a patient suffering from angina to successfully pass an insurance examination. For this reason most companies now require an x-ray and a cardiogram on applicants for large policies who are over 50 years of age. The electrocardiogram has its greatest value in this group of patients. A normal cardiogram is a finding of some importance particularly regarding prognosis. The cardiogram is the best method we have of detecting the presence and the extent of coronary sclerosis and most patients with angina show evidence of some deviation from normal. Coronary sclerosis is suggested when the cardiogram shows: (1) block, particularly of the intraventricular type; (2) T wave changes —either the so-called coronary T wave or definitely abnormal inversion; (3) disturbance, either depression or elevation of the R-T segment, the so-called low or high take off, and (4) development of Q wave in lead III. Most important of all are the serial changes, as by repeated observations minor deviations from the normal may be detected. Of interest but not much clinical importance are the changes in the cardiogram that occur during an attack. It has long been recognized that there are often certain definite and constant changes that occur when these patients develop an attack of angina[1], [2]. Interestingly enough these changes are very similar to some of those observed as a result of coronary thrombosis—again confirming the coronary basis of angina. These changes are also seen in individuals subject to rebreathing sufficient to produce an anoxæmia[3], [4]. There is a depression of the R-T segment in one or more leads and a sharp inversion of the T wave in leads I and II, or II and III. Widening of the initial ventricular deflections also occurs of the type formerly designated as aborization block or the more common forms of branch block. In certain cases a fourth or chest lead is desirable, as it may bring out evidence of coronary sclerosis that is not detected by the three ordinary leads. This fourth lead is secured by applying electrodes to the anterior and posterior chest walls.

*Differential Diagnosis.*—Many patients complain of pain in their chest, many believe this pain arises from the heart and in many there is a fear of

the dread angina. The pain or discomfort of angina pectoris must arise as a result of exertion or excitement, must be of short duration, and must be relieved by rest and the nitrites. If we adhere rigidly to this simple rule much of the difficulty of differential diagnosis will be overcome. There are, however, many borderline cases, the most difficult, in my opinion, being in the group with nervous irritable hearts. Practically all of these patients complain of pain in their heart but this pain is usually apical, is constant, is not definitely related to exertion, and is not relieved by nitrites. Certain mild cases of coronary thrombosis will present a picture very similar to angina and the importance of making a differential diagnosis lies in the extreme importance of instituting proper treatment. As already pointed out, the pain in coronary thrombosis is similar in location, character and radiation to the pain in angina. The former is usually much more severe, persists for hours and is associated with shock, a rapid pulse and a low blood pressure. In cases of coronary thrombosis where the vessel that is plugged is small the pain may be very mild, may not persist, and the symptoms of shock may be wanting. It is there that confusion may arise. The pain of coronary thrombosis is not relieved by nitrites but requires morphine. The doubtful cases should be watched and invariably in coronary thrombosis they will show slight temperature, a fleeting pericardial rub, or a leucocytosis within the first 72 hours of the onset. These patients must be kept in bed for 4 to 6 weeks, a precaution not necessary for every case of angina. In certain instances of severe anæmia anginal pain may occur even with perfectly normal coronary arteries. This pain disappears when the anæmia is adequately treated. Hyperthyroidism may produce an angina because of the excessive demands made on the heart by the elevated metabolism, and in these an accurate diagnosis is important because the angina can be relieved by curing the hyperthyroidism.

Of the non-cardiac causes of chest pain that may lead to confusion the commonest is the pain occurring in cases suffering from arthritis of the dorsal spine. Here we are more apt to find pain related to rectain postures or certain movements as, for instance, turning over in bed or in reaching or twisting, and there is no nitrite relief. Another confusion arises in intercostal neuralgia in which the pain is more constant and not affected by exertion or excitement. Again in all these instances it is important to determine the type of patient with whom we are dealing. Peptic ulcer may occasionally cause some confusion but a more common gastro-intestinal source of difficulty is the gall-bladder. A diseased gall bladder can produce a certain amount of distress under the lower sternum and a biliary colic may suggest angina, but again there is no relation to exertion and no nitrite relief. A cholecystitis may aggravate a latent angina.

*Prognosis.*—In the course of an uncompleted study of my own private cases of angina pectoris seen prior to the end of 1934 I have thus far reviewed 186 records. The figures on these patients are of some interest.

| | No. | % | |
|---|---|---|---|
| Recovered | 11 | 5.9 | 32.7 |
| Improved | 50 | 26.8 | |
| Unchanged | 15 | 8.0 | |
| Dead | 74 | 39.7 | |
| Not traced | 36 | 19.3 | |

In spite of a general attitude on the part of the medical profession that angina is hopeless, a third of these patients were benefited by medical treatment.

Those that recovered were invariably those that were able to readjust

their lives to a much restricted level of physical activity. Many of those classed as improved considered that they had recovered, in that their pains were much less severe and less frequent. Where any recurrences occurred, however, they have not been listed as recovered. Many of those that were unchanged were victims of circumstances over which they or their doctors had no control—improvement could hardly be expected in this group. Many of those that died were improved for a matter of months or several years before their deaths. Most of those not traced were from out of town and were seen only once. The commonest cause of death was coronary thrombosis though some died of progressive congestive heart failure. Ten patients suffering from angina survived an attack of coronary thrombosis. There was a high incidence of cerebral vascular accidents in this group of patients, an indication of the accompanying hypertensive cardiovascular disease.

In view of these figures I think our attitude regarding angina should be revised. While it is a serious malady, much can be done by adequate medical management to relieve or improve these patients. Many will live for years to die of some other condition. There is no relation between the severity of the pain and the prognosis. The most serious aspect of angina is its uncertainty—at any time coronary thrombosis may occur, and if this involves a large branch death may be instantaneous. The occurrence of angina while at rest, or cardiac asthma, or pulmonary œdema, adds to the gravity of the prognosis.

*Treatment.*—Rest is our most important therapeutic agent and rest must be a part of any treatment that we outline. Invariably these patients are of the keen, over-active type that throw themselves into their work wihout stint. Ofen, moderation or slowing up will lessen the frequency and severity of their attacks. Occasionally a month or six weeks of absolute bed rest is necessary to secure relief. The diet should be simple full diet in small amounts, and rest after meals is often beneficial. These patients should discontinue the use of tobacco. I think that there can be no doubt that tobacco is capable of producing a certain amount of heart pain. For the relief of the attack nitroglycerine grains 1/100 in hypo tablet under the tongue usually produces prompt results, though a few patients find the inhalation of amyl nitrite more effective. As to activity the rule should be to avoid that amount of exertion that will produce pain. Treatment between attacks must be given to the patient as well as to the angina. Theobromine grain 5, three times a day, after meals, has seemed to me of definite benefit—often combined with ½ grain of phenobarbital where hypertension or nervousness exists. My practice is to give this remedy for three weeks each month over long periods. The other xanthine derivatives have not been of any greater value to the patient and are all more expensive. Euphyllin can occasionally be substituted for theobromine. Occasionally I have used it intramuscularly in severe cases but without much success. The time-honored iodides are always worth using in small doses of 5 to 10 grains, three times a day after meals, over long periods, at least three months at a time. Digitalis in so-called tonic doses of grains 1½ once a day is often beneficial. The great majority of angina patients will benefit by a combination of rest, nitrites, theobromine and iodides. In fact, I think 90 per cent will be eanbled to carry on sedentary or very light work. The remainder represent the intractable cases that show no improvement and that require further treatment. Tissue extracts, such as the French preparation Angioxyl, or the American No. 568, given

intramuscularly are worth a trial in these cases and occasionally give some relief. I have recently secured a tissue extract for oral use that I am trying out in a controlled series of patients at the Out-Patient clinic. X-ray of the dorsal nerve roots has been suggested and has met with some approval. My experience is too limited (2 cases) to pass any judgment, but the rationale is not very clear. Alcohol injection of the dorsal nerve roots, on the other hand, may be a most helpful procedure in the severest types of angina as by this method in competent hands relief can certainly be obtained. It is obviously a last resort and should only be considered after all these other measures have failed. The injection of the dorsal nerve roots has almost entirely superseded the various types of cervical sympathectomy. Another surgical procedure recently advocated for these patients is the complete removal of the thyroid in an effort to produce hypothyroidism and so lessen the demands on the heart, and some excellent results have been reported.

Again let me emphasize that all these surgical procedures are only to be considered when more conservative methods have failed after adequate trial. In my series of 186 cases of angina only 3 suffered severely enough to suggest the need for surgery. One of these patients became worse so rapidly that there was no opportunity for surgical treatment, and the other two absolutely refused to even consider any operative intervention.

*Conclusions*:

1. Angina pectoris seems to be on the increase.
2. The diagnosis should rest on the development of transient attacks of substernal distress or pain due to exertion or excitement and relieved by the nitrites.
3. The prognosis while grave, is not as serious as has been supposed.
4. Much can be done for these patients by adequate medical treatment; for the intractable case surgery may be required.
5. The keynote of treatment is rest.

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# CONSIDERATION OF THE MAJOR SURGICAL LESIONS OF THE KIDNEY


Verne C. Hunt, M.D.
*Los Angeles, California*


Even though one may be entirely familiar with the various procedures that are necessarily employed in the diagnosis of surgical renal lesions, it should be constantly borne in mind that often surgical lesions of the kidney have been allowed to progress irreparably through failure to recognize indications for investigation of the urinary tract. Cliincal manifestations often are entirely misleading, and too frequently incomplete examination has led to improper interpretation of signs and symptoms. The urinary tract must always receive due consideration in the differential diagnosis of

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An abridgment of lecture presented at the Vancouver Medical Association Summer School, Vancouver, June 20, 1935.

obscure symptoms referable to the abdomen. While it is not my desire to discuss the various diagnostic procedures, it nevertheless seems appropriate to the discussion to at least recall to your attention that under certain conditions accurate interpretation of clinical manifestations is impossible or may be undertaken only with considerable opportunity for error in the absence of careful, competent investigation of the urinary tract.

Renal lithiasis, the most common surgical lesion of the kidney, should at least be thought of in many instances of abdominal pain, and particularly in most instances when the pain is in the right abdomen, suggesting pathology in the appendix or gallbladder. It is worthy of emphasis that the absence of microscopic cellular elements in the urine provides insufficient evidence to conclude that the kidneys are normal and do not harbour pathology which may be responsible for all symptoms or exist as coincident or associated pathology to that responsible for the symptoms. The presence of microscopic cellular elements in the urine, unless readily accounted for, should usually direct attention to the necessity, in the absence of acute emergency situations, for investigations of the urinary tract. In the vast majority of cases a roentgenogram that encompasses the kidney, ureter and bladder area on each side usually verifies or excludes a suspected urinary calculus.

A history of hæmaturia or an active hæmaturia most urgently suggests investigation of the urinary tract, for one or the other kidney is not an infrequent source of bleeding. Some years ago, in reporting fifteen cases of papillary epithelioma of the renal pelvis, I stated that gross hæmaturia was a predominant symptom in every case as an intermittent hæmaturia for a period of from two weeks to as long as four years. In two-thirds of the cases the gross hæmaturia had existed for more than six months, and the average duration of intermittent bleeding was one year before careful urological examination was instituted, leading to the diagnosis of a tumour of the kidney. Inasmuch as prognosis is so dependent upon the duration of symptoms, the onset of gross hæmaturia, often the earliest symptom, should lead to immediate investigation of the urinary tract.

Likewise the presence of a tumour in either quadrant of the abdomen, unless its nature is readily determined by other means, should suggest the possibility of an enlarged kidney, which often proves to be a tumour of the kidney. In a large series of malignant tumours of the kidney reviewed some time ago by Hager and me, a tumour was palpable in 66 per cent of the cases.

We are well aware of the painstaking effort so necessary on the part of the urologist to establish a diagnosis of a surgical lesion of the urinary tract and the necessity for care in the selection of procedures incident to urologic diagnosis and competent interpretation of data. The symptoms of intra-abdominal disease and those of disturbances of the urinary tract are often sufficiently atypical not only to be confusing in diagnosis but to be entirely misleading. The frequency with which the gallbladder or the appendix or both have been removed for symptoms that have been produced by primary disease of the urinary tract emphasizes the necessity of urologic investigation if there is doubt regarding the accuracy of the diagnosis.

*Lithiasis.*—Approximately 50 per cent of the operations upon the kidney are for renal stone, and fortunately the diagnosis is not difficult, for the mineral content of kidney stones is such that shadows are usually readily depicted in the roentgenograms of the urinary tract area. As yet no

clear and uniform conception of the ætiology of lithiasis has been presented, but clinical and experimental investigation has resulted in the exposition of certain significant factors. The theory that remote foci of infection are instrumental in the development of kidney stones has received much support. Considerable evidence has accumulated, tending to indicate that perhaps chemical changes incident to the advent of bacterial invasion of the kidney and the urine may be instrumental in the precipitation and agglutination of the normal mineral content of the urine, i.e., the oxalates, urates and phosphates, the most common constituents of calculi. Rosenow has shown that certain strains of bacteria possess definite specificity, and clinical observation has shown that the elimination of active foci of infection has usually resulted in the cessation of the process of recurrent formation of stones in patients who possess a so-called stone forming kidney. At any rate, experience has proved that the treatment of patients with renal lithiasis is incomplete without the investigation and elimination of all remote foci of infection.

The disturbance that occurs in the metabolism incident to hyperparathyroidism, in which the alteration in the blood calcium and phosphorus are particularly prominent, has in recent years been shown to bear more than an incidental relationship to renal lithiasis. Hyperparathyroidism is always unique in giving a combination of a high serum calcium and a low serum phosphorus. There is also an increased excretion of calcium in the urine as well as an increased urinary excretion of phosphorus in spite of a decreased serum phosphorus. It is of interest that in a series of seventeen cases of hyperparathyroidism reported by Albright, Aub and Bauer, urinary calculous disease co-existed in thirteen cases, and in ten of these the stones were situated in the kidney. It seems not unreasonable to assume that metabolic disturbances, particularly as the serum calcium and serum phosphorus become altered quantitatively, must receive due consideration as ætiological factors in renal lithiasis, not only as these metabolic disturbances occur in hyperparathyroidism but in other conditions in which a higher than normal serum calcium is encountered.

Once the diagnosis of renal lithiasis has been made, the question of treatment is immediately presented. Many factors influence the decisions that may be made, and most important of these are: (1) the number of stones, as to whether there is a single stone or whether stones are multiple; (2) obstruction at the uretero-pelvic juncture by stone; (3) unilateral or bilateral lithiasis; (4) associated ureteral stones; and (5) the status of renal function. In terms of generalities it may be stated that in the absence of distinct contraindications, a stone in the kidney one half centimetre or more in diameter should be surgically removed whether or not it is producing symptoms. Stones as they are depicted in the roentgenogram less than 5 m.m. in diameter may usually, in the absence of the acute manifestations of obstruction, be given the opportunity to pass spontaneously, and frequently will do so. Stones of larger diameter are not likely to pass spontaneously, and even though they may be entirely silent so far as symptoms are concerned, experience has proved that stone in the kidney is seldom silent so far as its effect upon the kidney is concerned. I have previously stated elsewhere on a number of occasions that in a large personal experience in the surgery of renal lithiasis it has been necessary to perform nephrectomy in thirty-five per cent of the cases of renal lithiasis on account of the extensive damage that has occurred to the kidney.

Multiplicity of stones in the kidney often contributes much to the

difficulty of completely removing all stones and fragments, which usually is most successfully accomplished under fluoroscopic control. Obstruction at the uretero-pelvic juncture by stone often is manifested by acute symptoms characterized by pains, chills and high fever, and not infrequently rapid damage to kidney structure occurs in the presence of infection with the development of multiple cortical abscesses requiring nephrectomy. When bilateral renal lithiasis is encountered, the general principle, notwithstanding recent statements to the contrary, of operating first, in the absence of acute symptoms, upon the kidney with the better function in order to take advantage of the function of the poorer kidney, has proved highly successful.

Renal lithiasis complicated by ureteral lithiasis provides problems which are not always easy of solution. In general, effort should be directed toward removal of a ureteral calculus, particularly when it is situated in the lower third of the ureter, by one method or another previous to surgical removal of kidney stones. When a ureteral stone is present in the upper third of the ureter on the same side as the renal calculus, it usually can be readily moved simultaneously with the removal of the kidney stone.

Excluding the cases of renal lithiasis in which damage to the kidney has been so great as to require nephrectomy, conservative procedures for the removal of renal stones are usually readily instituted without damage to kidney tissue. Stones have been removed by pelviolithotomy in 86 per cent of my cases, in which the conservative operation could be done; only 13.7 per cent of the cases required removal through the cortex or by combined procedures through the cortex and the renal pelvis.

It is possible for renal stones to re-form through the persistence of preexisting foci of infection and other indeterminate factors entering into the formation of stone. There are so-called stone forming kidneys in which calculi continue to develop even though all demonstrable foci of infection have been eliminated. However, true re-formation of stones occurs rather infrequently and experience has shown that the relatively high incidence of so-called re-formation of stones has in reality been the continued development of stones overlooked at the time of operation, or of particles incompletely removed, which serve as nuclei for subsequent stones. Surgeons of wide experience in operating for renal lithiasis have all suffered the humiliation of being unable to find enough stones at operation to account for all the shadows in the roentgenogram and of having shadows persist after operation. Likewise, shadows have been found immediately after operation when the surgeon was certain he had removed single or multiple stones completely. In other words, overlooking one or more stones at operation is a significant factor in the so-called re-formation of stones. Roentgen-ray examination as a routine a few days after operation is the only means of distinguishing between the oversight of stones and their subsequent formation.

*Renal tuberculosis.*—The upper part of the urinary tract seldom is alone the site of tuberculosis, and primary tuberculosis of the urinary tract seldom, if ever, occurs. It is generally accepted that tuberculosis of the kidney is hematogenous in origin. The high incidence of pulmonary tuberculosis in general necropsy records would seem to indicate that the lungs serve as the primary focus for secondary dissemination through the blood stream. In fully 80 per cent of the cases of renal tuberculosis there is associated tuberculosis elsewhere; however, in the absence of contraindications or of activity of a major tuberculous lesion elsewhere, associated lesions

should not necessarily deprive the patient of the benefit to be obtaind from removal of the major tuberculous process if it is in one kidney. Although heliotherapy and non-surgical methods of treatment have been advocated and unquestionably possess some merit, the cure of unilateral renal tuberculosis is usually not accomplished except by nephrectomy.

There is considerable divergence of opinion regarding the frequency with which renal tuberculosis is encountered as bilateral disease. Medlar, Thomas and others are of the opinion that bacilluria is evidence of tuberculous disease of the kidney and that bilaterality of the disease is common. Wildbolz has stated that the demonstration of bacilli of tuberculosis in the renal secretion by no means signifies that the corresponding kidney is the seat of specific tuberculous tissue changes and that the presence of bacilli in the renal secretion may be due to so-called bacilluria, especially in patients with advanced pulmonary lesions, without there being any tuberculous tissue changes in the kidney. It is worthy of emphasis that autopsy records of patients dying from pulmonary tuberculosis are not suitable for determining the incidence of bilaterality of surgical renal tuberculosis.

Only those cases may be studied for this purpose in which the genito-urinary tuberculosis is the major lesion. The question of nephrectomy seldom if ever arises in the patient with an active, cavitating, debilitating pulmonary tuberculosis in which bilaterality of the disease in the kidney not infrequently exists. It is the patient in whom the major clinical manifestations are those related to the genito-urinary tract and in whom other pre-existing or coexisting tuberculous lesions are healed or quiescent that the question of bilaterality is most important. Some years ago, for the purpose of determining the incidence of bilaterality of renal tuberculosis in patients whose major clinical manifestations were those of the genito-urinary tract, I reviewed a series of 838 cases of renal tuberculosis that had been under observation during a ten-year period. Without entering into the analytical details of the review, which has been published elsewhere, it was found, after making liberal allowance in favor of bilateral involvement when any question existed, that the incidence of bilaterality of renal tuberculosis was 13 per cent.

As to whether or not nephrectomy should be considered in the presence of tuberculous lesions elsewhere depends largely upon the degree of activity of the various tuberculous lesions. Certainly in the absence of general contraindications where the tuberculous kidney is the most important tuberculous lesion its removal is justly indicated. The low primary mortality rate of approximately 2.5 per cent following nephrectomy for unilateral renal tuberculosis justifies the operation even if there is moderate pulmonary involvement.

*Renal Malignancy.*—Neoplastic disease comprises about 9 per cent of the surgical lesions of the kidney and about 13 per cent of the indications for nephrectomy. In malignant disease of the kidney, as elsewhere, it is most essential that diagnosis be made early to insure the best prognosis. Unfortunately, extensive advancement often occurs silently so far as subjective symptoms are concerned, and operability frequently is questionable at the time that the diagnosis is made by virtue of metastases or extensive extrarenal invasion with fixation of the kidney. Most malignant lesions of the kidney tend to metastasize rapidly through local extension to perirenal structures and the renal vein; the latter provides a direct avenue for remote metastases. In the absence of demonstrable metastases and fixation of the kidney by direct extension to surrounding structures, nephrectomy affords the best prognosis.

In a review of sixty cases of carcinoma of the kidney in which I did a nephrectomy, it was noted at the time of operation that the renal vein was involved by the tumour in eleven cases. In twelve other cases the tumour had invaded surrounding structures and

involved regional or retroperitoneal glands and was incompletely removed. In other words, in approximately 38 per cent of the cases of hypernephroma or carcinoma of the kidney radical nephrectomy failed as an operation curative in purpose in attempting to extend the operation to include all involved tissue. Without taking into account those cases which are directly inoperable by virtue of fixation or demonstrable metastases and are not even explored, I am confident that the inoperability of malignant tumours of the kidney, as determined by exploration or in which palliative nephrectomy is done, approaches 50 per cent. Adding a surgical mortality rate of approximately 8 per cent leaves but a relatively small percentage of cases in which one has reasonable hope for obtaining a cure by nephrectomy unless the diagnosis is established early and nephrectomy is instituted while the disease is confined to the kidney.

Papillary epithelioma of the renal pelvis is the most favourable malignant lesion of the kidney for it does not invade the kidney or extrarenal structures but progresses by direct extension along the mucous membrane to calices and the ureter and often to the bladder. Furthermore this lesion usually is of low grade malignancy and does not tend to metastasize early. Preoperative recognition or identification of this particular type of tumour at operation is essential to the best prognosis, for in addition to nephrectomy complete ureterectomy to include the intramural portion of the ureter at the uretero-vesical juncture is necessary for the complete eradication of the lesion and the prevention of its recurrence.

Unquestionably radiotherapy merits a place in the treatment of malignant tumours of the kidney. It has frequently been observed following radio-therapy in large fixed inoperable tumours that marked regression in the tumour occurs, particularly as to size, and in many instances the vascularity of the tumour has decreased, and often hæmaturia has been at least temporarily controlled.

*Hydronephrosis.*—About 14 per cent of the surgical lesions of the kidney is comprised of the various types of hydronephrosis with or without infection. In the absence of intrinsic obstruction at the uretero-pelvic juncture by stone, the vast majority of the cases of hydronephrosis are caused by accessory blood vessels to the lower pole of the kidney. Often so much dilatation of the pelvis and calices has occurred with resultant damage to the kidney that nothing short of nephrectomy is advisable. There are many cases in which renal function has been sufficiently preserved so that conservative surgical procedures may be instituted. Often simply division and ligation of the accessory blood vessels to the lower pole with fixation of the kidney is sufficient to provide relief of obstruction at the uretero-pelvic juncture with restoration of renal function. In the presence of considerable dilatation of the pelvis with sufficiently good renal function in which restoration of the major capacity of the kidney may be anticipated, one or the other of the various plastic operations on the pelvis of the kidney or at the uretero-pelvic juncture have proved most satisfactory in many instances. However, in five to 10 per cent of the cases in which a plastic operation has been done, a satisfactory result has not been obtained and because of persisting infection or inadequate drainage of the kidney subsequent nephrectomy has been necessary.

*Metastatic Cortical Abscess with Perinephritic Suppuration.*—Multiple cortical abscesses of one or both kidneys are not infrequently encountered in some of the acute fulminating types of generalized infection. Likewise cortical abscesses are at times encountered in the acute obstructive lesions of the upper urinary tract in the presence of infection, particularly by stone. These are all of interest, however, their clinical recognition is not difficult. The cortical abscess to which I desire briefly to refer is that which fails to resolve but involves perirenal structure with the development of a perinephritic abscess, to the exclusion of those instances of perinephritic abscess secondary to renal tuberculosis, pyonephrosis and definitely ascertainable intrarenal disease. I have reference to that particular type of perinephritic abscess which develops secondary to a metastatic cortical abscess of the kidney in which the primary infection was a superficial one of the skin, usually a series of boils, a carbuncle, or a superficial infection which had occurred weeks or months previously and in many instances had healed and had been entirely forgottten.

The clinical manifestations are those of fever persisting for days or weeks, leucocytosis of 12,000 to 20,000, often dull ache in the kidney area or under the costal margin. Physical examination usually discloses nothing except in some instances suggestive or slight tenderness in the kidney area. A strikingly uniform observation has been the absence in most cases of any positive findings on urologic examination. There usually is an absence of microscopic cellular elements in the urine, for not unless a cortical abscess communicates with the pelvis or a calix, which seldom if ever occurs, do pus or blood cells appear in the urine. Pyelographic examination of the kidneys likewise is usually negative and were one to rely upon urologic data the diagnosis is not evident. A positive finding in the

majority of instances is the absence in the roentgenogram of a clear outline of the outer margin of the psoas muscle in the presence of a perinephritic abscess.

I have presented this subject for the purpose of directing attention to the necessity of carrying in mind this very distinct clinical entity which is characterized usually by an absence of signs and symptoms on which one may rely but presents diagnostic problems which may be readily solved by developing a sequence of events emanating from superficial infections existing weeks or months previously. I would emphasize the statement that a very definite relationship exists between superficial infection, such as furuncles, carbuncles, paronychiæ and so forth, and the subsequent development of cortical abscess and perinephritic suppuration. The latter should always receive due consideration if there is unexplainable septic fever and leucocytosis with or without localization of pain or tenderness. The diagnosis usually is made not on the indeterminate evidence at hand at the moment but on the knowledge of the relationship of the present indeterminate evidence as to what the patient had and apparently recovered from weeks or months previously.


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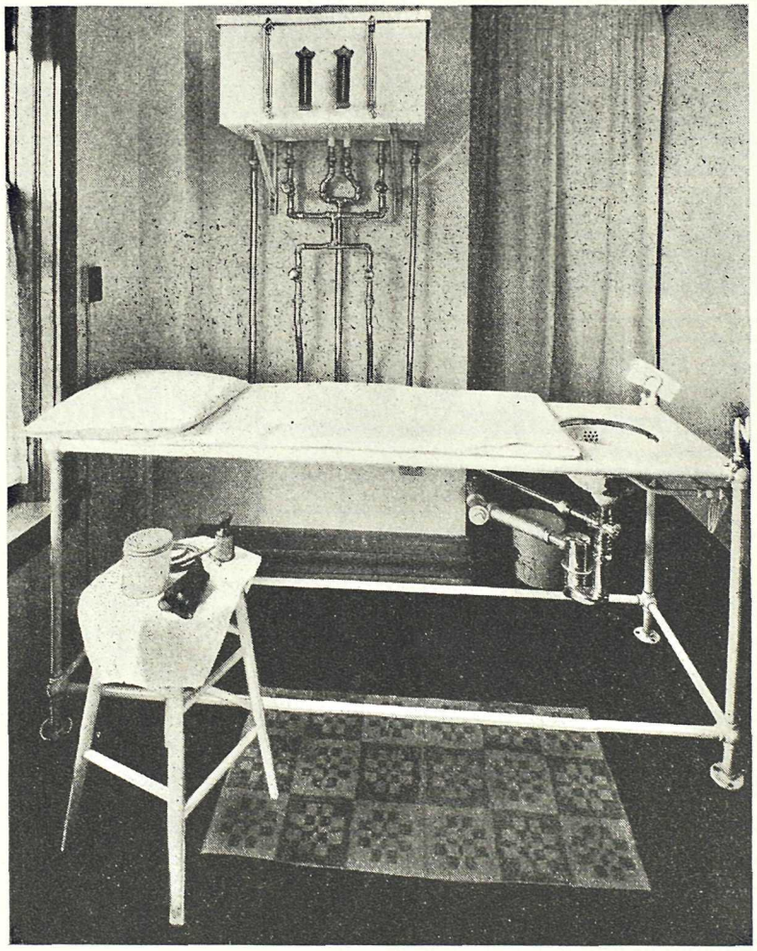

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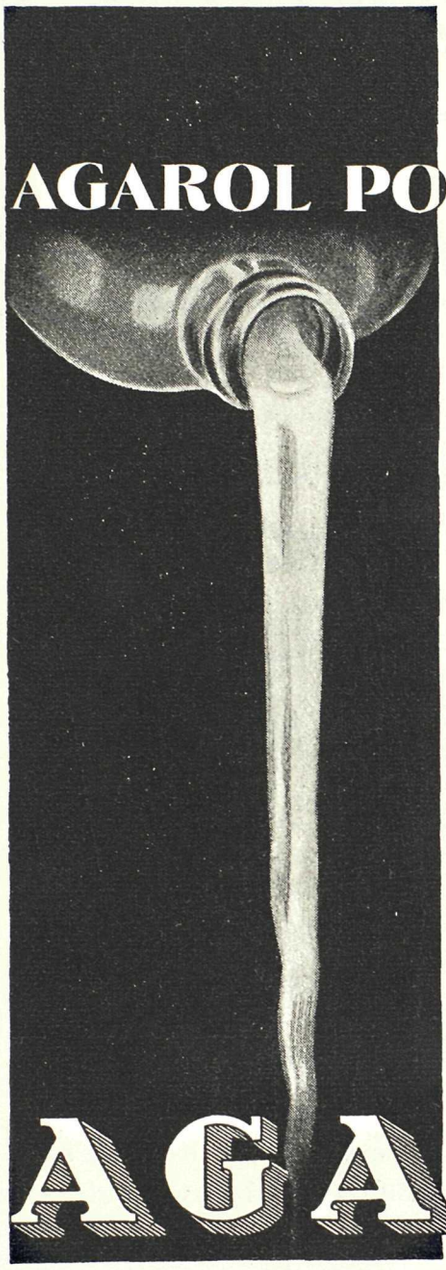

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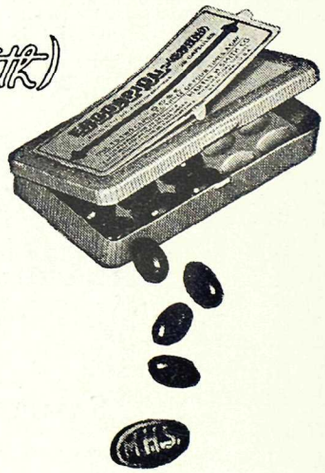

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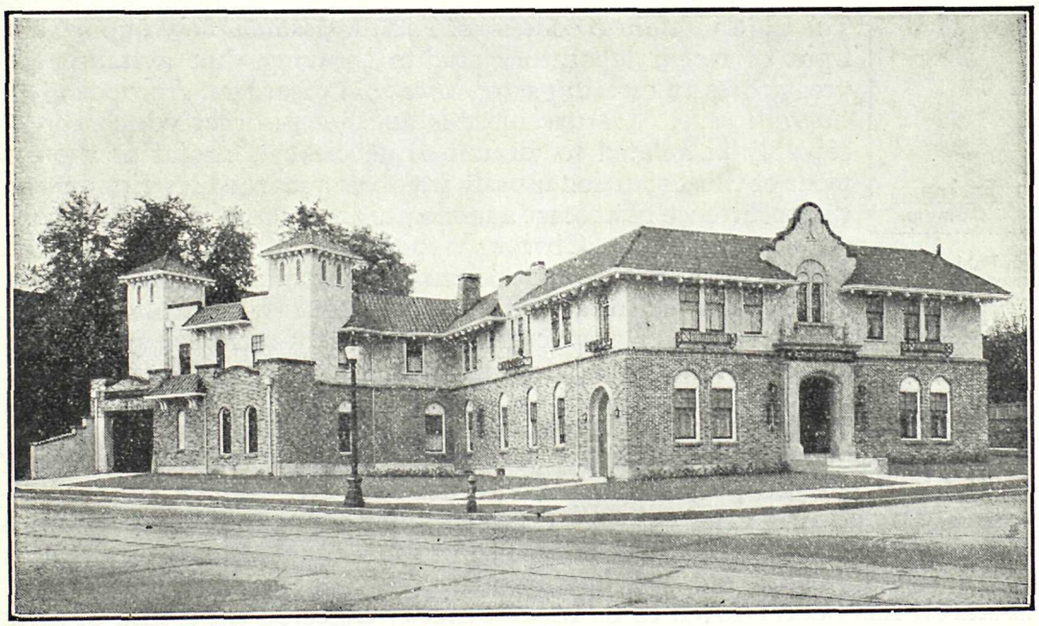

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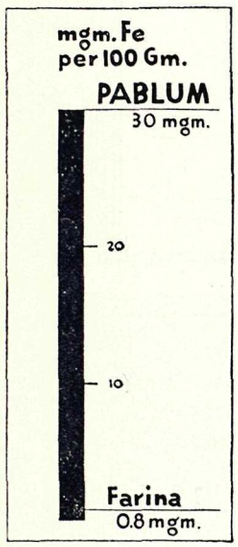


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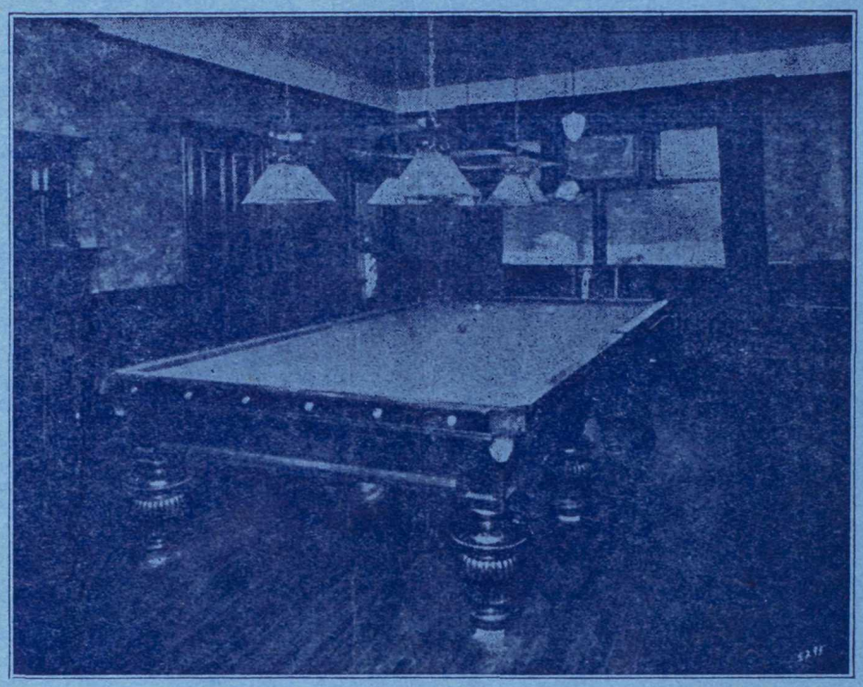

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