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The Official Organ of the Provincial Hospital Associations

The HOSPITAL MEDICAL and NURSING WORLD

CONTINUING THE HOSPITAL WORLD

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Contents.

Published in the interests of Hospitals & the Medical & Nursing Professions.

THE HOSPITAL, MEDICAL AND NURSING WORLD

TORONTO, CANADA

A professional journal published in the interests of Hospitals, and the Medical and Nursing Professions.

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Editorial

Working Together

One of the signs of the times is shown in a recent report that the Archbishop of Canterbury has appointed a permanent commission consisting of six physicians and six clergymen to act as an advisory board to the Church of England on all questions of the healing missions. It is asserted that this committee will deal with all health questions as well as that perplexing one of birth control; also the spiritual care of the insane. This last office is an unusual one, since it has been rarely, if ever, considered outside of the intimacies of personal clerical visitation. But it opens up a wide vista for the psychologists.

The clergy, Anglican or non-conformist, have had, and still have, a tremendous and most intricate problem to solve in dealing with the healing art as applied by mental and spiritual methods only. It is so entwined in the history of the human race from earliest days, so involved in early Christian teaching and practice, and so defined by modern medicine that the Church is well advised to call the medical profession to its assistance in endeavor to give it proper place.

The doctor and the clergyman have for a long time worked together at the individual bedside. In the Emanuel movement in Boston a few years ago these two worked together in the church gatherings. To-day each is beginning to realize that a blending of their services may be the best therapeutics.

The success of much pseudo-science among the people has taught medical men that mental and spiritual attitudes undoubtedly exercise healing power, that in ignoring these they are neglecting a part of their armamentarium.

The clergy recognize that the mission healer has a measure of power that should be possessed also by themselves. The psychoanalyst, despite all his vagaries, is making clear the power of suggestion instilling healthful reaction to the individual environment. So it is a wise and far-seeing move to bring this involved subject under the advisement of such a committee to formulate, as far as it can, governing rules in this respect for the guidance of the perplexed minister.

The Church needs the aid of the medical profession. That the latter frankly acknowledges the need of the Church is shown in the recent opening of an institute for the cure and cause of cancer in the University of Minnesota. On the Sunday nearest the opening the regents of the university and the medical staff of the institute asked the prayers of the churches for the future development of this enterprise. The form of prayer, which was distributed in large quantities in the churches of Minneapolis, read:

> "O God, who declarest Thy almighty power in showing mercy and pity to all who call upon Thee, and who revealest to men in each new discovery, a part of Thy truth: enable with Thy grace, we pray Thee, the dullness of our

blinded sight, and grant a new vision to all those who serve Thee in their search for the cause of cancer and its cure. Lighten their darkness, O Lord, we beseech Thee and mercifully direct them into Thy path of knowledge and truth; grant them the realization that through Thee all things are possible; pour upon them the abundance of Thy inspiration; and finally lead them to the attainment of victory, that the scourge of cancer may be ended, and that we, being freed from this burden of fear, may live continually in the love and service of Thine only Son, our Saviour Jesus Christ. Amen."

A Question of Fitness

From the point of view of simple justice there seems to be no question that any medical man holding State qualification to practise should have the right to follow his patients into any State supported or partially supported hospital to continue treatment. This, of course, applies only to pay-patients, but should include pay-patients in public wards as well as in private and semi-private wards.

From the patient's standpoint the eight or ten dollars per week, which he or his friends finds to be the limit of their ability to pay, should place him in the same self-respecting position as that of the higher paying patient, to the extent of retaining his own doctor rather than coming under one of the staff men with the stigma of charity treatment.

Under present hospital ruling in this matter, many patients remain in their own homes, since the hospital ward means to the patient a loss of his doctor, and to the doctor the loss of a patient who is often the member of a family whose fees for medical attendance may be small, but faithfully met when possible.

The hospital viewpoint is, or has been up to the present, that an "open" hospital, as the phrase goes,

involves too great risk in admitting doctors who are incompetent and lack in technique and ability, thus bringing discredit upon the institution.

The question naturally arises, if a practising physician is so markedly incompetent that he may not follow his patient into the hospital, why is he permitted to continue in practice? And why is his license not revoked? Is it up to the hospital or the State to pass judgment?

In the smaller communities, as a rule, every doctor is on the hospital staff. He is personally known and, having State authority to practise, no question arises concerning his right to the use of the hospital facilities for his patient, whether that patient pays much or little. In large city institutions, personal knowledge of the abilities of each member of the profession by the hospital authorities is not possible. But there are governing bodies in every State and Province which exist for the especial purpose of bestowing, refusing, and revoking licenses, and it is these and these only who should have authority to query professional fitness to practise.

If the machinery of organization is not sufficient to enable such a body to grade or eliminate those doctors who are considered so pre-eminently unfit that hospital reputation will suffer by their work, then some more advanced or drastic methods should be devised.

Emphatically, we repeat that a medical man who is debarred, on the ground of injury to the hospital's reputation, from following his patient into wards should equally be debarred from practice outside.

Every hospital must have its general staff for the service of non-paying patients and clinical purposes, but the appointment and selection of these is

a matter quite apart from the point taken up. Our public hospitals on this side are no longer purely voluntary, but are largely supported by the State, and the taxpayers have a right to protest against a very unfair discrimination.

Fire-Proof Hospitals

The total destruction of the Victoria Hospital, Renfrew, in mid-January should make all hospital trustees and superintendents do a little serious questioning. They might ask themselves, Is our hospital fire-proof? Have we any special provision for preventing and fighting fires? Do our employees know what to do and how to act if a fire occurs?

The Renfrew citizens have had in mind replacing their old hospital building with a new one. The fire has hastened their decision. We strongly urge them and all other towns proposing to build a new hospital or additions to their old one, to use fire-proof material, and provide, as well, extinguishers to put out any incipient blazes due to ignition of curtains or furniture. All extinguishers should be in working order and nurses shown how to use them by using them.

Likewise employees should be trained where to go and what to do in case of fire; and should be drilled to see if they remember what they have been told.

All authorities of hospitals which do not have fire-proof buildings should instal sprinkler systems at once, provide chemical extinguishers and teach all their employees what to do with the gas and electricity in case of fire, and how to house inflammable agents.

Of course, it must not be forgotten that the main thing is to get the patients out; this the Victoria Hos-

pital folk with their helpers did satisfactorily. But how much more satisfactory it would have been had the building been fire-proof. If this fire wakes hospital folk in general up the loss will not be in vain.

Saskatchewan Hospital Association

The above association met in Yorkton in November. Dr. F. C. Middleton, of Regina, who is Director of Hospital Management, gave a review of the work in the Province for the year 1924. Dr. A. D. Rose presented a paper on "Hospital Contributions to the Community." Miss D. E. Gillespie gave an address on "Nursing Ethics."

Group conferences were held. Mr. V. I. Sandt, Manager of the Victoria Hospital, Prince Albert, led the group at the fifty-bed conference; and Mr. J. M. Clark presided at the round table conference on union hospitals. The "Purchasing of Hospital Supplies" was taken up by W. H. Madden, of the Tuberculosis Sanitarium of Qu'Appelle; J. J. Willette, of Union Hospital, Unity, discussed "Laundry Problems;" J. F. Irving spoke on "Doctors and Hospitals"; and Mr. J. W. Heartwell presented a paper on "Union Hospital Legislation." A second round table conference was held at which collection of hospital accounts, economies in food and supplies and dietetics were quite fully discussed.

Officers for the current year are: President, Horace W. Cookson; first vice-president, J. W. Heartwell; second vice-president, W. E. Stevenson; third vice-president, J. M. Clark, Yorkton; secretary-treasurer, G. E. Patterson, Regina.

Surgical Ethics

Every surgeon has his own ethical standard, quite apart from the general standard recognized by surgeons as a whole, which include relationship to those with whom they consult, their assistants at operation, their anæsthetists, their nurses, the patients and the patients' friends.

A point that needs emphasis is the arrangement which should be made for the payment of the anæsthetist and the assistant at the operation. It were well that these men and the patient or the friends who are to pay should all know what fee is to be paid for the service of both these helpers. Further, we think it wise that the surgeon should indicate the probable amount of his charge. Trouble sometimes arises through not taking the above precautions.

We speak of this because we have been informed of one case wherein the assistant had to sue for his fee of $35.00; and the anæsthetist had to wait over five years for his fee of $15.00. The trouble arose mainly because the patient and his friends were not notified that these charges would be made. It would seem wise that the surgeon or the family practitioner in charge of the case should make definite arrangements as to fees of those who help the operator. We respect the practice of one well-known surgeon who always sees that his anæsthetist, who shares a heavy responsibility with his chief, is paid at the same time as he himself is paid.

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Original Contribution

CAUSES OF FIRES IN HOSPITALS, SANITARIUMS AND SIMILAR INSTITUTIONS*

By E. P. Heaton,
Ontario Fire Marshall

Fire may be regarded as one of man's most beneficient agencies, but it is generally conceded that it is a most destructive force imperilling natural and created resources, and taking such a toll of human life as to cause one to halt and wonder if its benefits and advantages are not being bought at much too great a cost.

When the architects of the Great Union Railroad Depot at Washington were designing that noble national structure it was decided to devote the façade to a series of panels and tablets illustrating the arts and sciences, and the outstanding artists of the country were to be engaged to translate their best conceptions into enduring marble and bronze. Those of you who have looked upon that wonderful structure know that this was carried out.

Among others there is a panel to Prometheus, God of Fire, and upon the dedicatory tablet there is inscribed:

Fire!

> "Greatest of discoveries, enabling man to live in various climates, use many foods and compel the forces of nature to do his work."

I am afraid that this must be characterized as artistic imagery; fire is not a discovery; what has been discovered is that by fire, nature's marvellous resources may be refined, amalgamated, fabricated and adapted to man's comfort and happiness.

In all these processes, however, the element that has proved so beneficial has found its own channels of destruction, and fire has consumed what it has constructed at such infinite pains, with the result that we are staggering under a burden of obliterated wealth that is impoverishing the nation.

*A paper read before the Ontario Hospital Association at Toronto, October 16th, 1925.

It has, moreover, been discovered that fire lies hidden within the products created by Nature's bounteous hand and that under certain circumstances a neglect of Nature's laws, or the omission to properly control the co-mingling of forces having an affinity for each other, may and does create self ignition, with the result that an element of potential value is turned into an engine of destruction.

It will be well for us, at the very outset, to remember that the old fallacy that fire can only be caused by an external agency is no longer held to be the case. True it is that this is a comparatively modern discovery, less than two centuries old, but it is now of universal belief, and he would be ridiculed who had the temerity to advance an opposite theory.

The other day I ran across a rather interesting paragraph of Gilbert Chesterton's and at this point I believe, or at all events, hope, that you will pardon me quoting it:

> "Fire, the most magic and startling of all material things, is a thing known only to man and is the expression of his sublime externalism. It embodies all that is divine on his altars. It is the most human thing in the world; but there is about this generous and rejoicing thing an alien and awful quality; the quality of torture. Its presence is life; its touch is death."

In the further discussion of this subject will you please keep prominently before you the point I have just made, for it is of considerable importance to know that fire is nothing more nor less than the gradual evolution of heat and light by combustion *with or without* the application of an external spark or flame. You will readily perceive the value of this suggestion as I draw your attention to the causes of fires in the class of institutions represented in your Association.

Experience of the Province of Ontario

For the past ten years, Ontario has fortunately escaped any serious disaster by fire in hospitals and similar institutions resulting in the loss of human life. We have had one or two bad fires to which reference will be made a little later, but happily these were unattended by fatalities or very serious injuries. Do not conclude from this that we are immune from similar disasters which have occurred in other Provinces, and not infrequently in the United States, because of any superiority of construction, protection or occupation. All the elements

that have contributed to disasters in other parts of the continent exist in our own Province; it would be simply folly for any of us to pretend that they do not; that we have escaped disaster from similarity of conditions is not susceptible of rational explanation, but it is a fact for which you who are responsible for guarding the lives of patients and officials, and every right-thinking person, must feel the most profound thankfulness.

In speaking to you thus frankly I have no desire to create alarm—far from it—but we must not emulate the ostrich in burying our heads in the sand to avoid seeing the danger that lurks ahead. It is because I know, from personal experience, that our hospital officials are eternally vigilant to prevent disaster, that I have made some effort to determine the "causes of fires" in the hope and expectation that knowledge may be power and that possibly some element of danger not previously apprehended may be realized and guarded against.

Since the beginning of 1920, to the end of August, 1925, we have had sixty fires in hospitals, sanataria and asylums in the Province of Ontario with an aggregate fire loss of $328,034, as follows:

Year	No. of Fires	Loss
1920	14	$215,668
1921	8	17,727
1922	14	15,259
1923	6	56,681
1924	12	8,827
1925 to Aug. 30	6	13,872
	60	$328,034

So that with the exception of the years 1920 and 1923 the loss has been light. In the year 1920 we had the serious fire at Gravenhurst, $140,000, and the Essex Sanitarium, $66,793. In 1923 we had the fire in the Military Hospital at Portsmouth, estimated at $50,000. By far the largest proportion of our loss has arisen from fires in sanitaria, and the following analysis of the sixty fires will therefore be interesting.

General hospitals have had	36
Private hospitals have had	6
Sanitariums have had	13
Military, camp and factory hospitals	5
	60

As I have already pointed out to you our local or provincial experience is too restricted to be of real value, but, through the courtesy of the National Fire Protection Association of Boston, and the Acturial Bureau of the National Board of Fire Underwriters, I have received some valuable information of the experience of the entire United States, and I now propose to present to you the information gathered from, and to deal with "Causes of fires," from this larger territory; it should, therefore, be the more beneficial to you.

United States Experience

I have been furnished with data from the United States which shows that they have about 600 fires annually in hospitals, sanitaria and asylums with an aggregate average annual loss of $1,000,000; the amount of the loss does not so much concern us, we are more interested to know how many fires occur and *how* they start.

It is not my intention to burden you with elaborate statistics, but to condense the information and present it to you in concrete form. I therefore ask you to peruse the statement now being distributed; it presents the experience of the United States and of the Province of Ontario in a very simple yet complete way. Known causes of forty-two Ontario and 1,040 United States fires are analyzed into their respective headings and the total of the known causes (1,082 in number), should enable us to make a fairly accurate, though not infallible, diagnosis of the disease we are studying.

You would probably hesitate to pronounce any definite conclusions on any medical problem if you were unable to throw any light on one out of every five cases brought to your attention. Yet that is the position we must acknowledge ourselves to be in, and you will therefore understand that the statement now in your hands is to some extent inconclusive because of the twenty per cent. of fires of unknown causes. Possibly if the "unknown" cases could be "known" we might have revealed to us some elemental hazard that we now do not appreciate, but speculation must give way to ascertained facts and we must deal with the subject only in that light.

Analysis of 1,082 Known Causes of Fires in Hospitals, Sanitaria and Asylums Presented with Paper Read Before the Canadian Hospital Association at the Academy of Medicine, Toronto, October 15th, 1925.

Cause of Fire	Ontario		U.S. 2 Years		U.S. 3 Years	
	Number	Percentage to Known Causes	Number	Percentage to Known Causes	Number	Percentage to Known Causes
Conflagrations	.....	.....	51	4.94	.....	.....
Electricity and electrical appliances.	12	28.56	89	8.56	.....	.....
Explosions	1	2.38	6	.58	.....	.....
Gas, natural and artificial	2	4.76	39	3.75	.....	.....
Hot ashes and coals, open grates	1	2.38	16	1.54	.....	.....
Hot grease, tar, wax, etc	2	4.76	.....	.....	.....	.....
Incendiarism	.....	.....	19	1.82	.....	.....
Lightning.....D	4	9.55	121	11.63	163	10.82
Miscellaneous, not detailed	1	2.38	52	5.00	.....	.....
Open lights	2	4.77	37	3.56	.....	.....
Oils and hazardous materials	1	2.38	70	6.73	.....	.....
Smoking and matches.....I	6	14.28	148	14.23	229	15.20
Sparks on roof from outside.....I	4	9.54	109	10.48	180	11.94
Stoves, furnaces, boilers and their pipes.....D	6	14.28	248	23.82	325	21.57
Spontaneous combustion	.....	.....	35	3.36	.....	.....
	42	100.00	1,040	100.00	.....	.....
Unknown causes	18	.....	164	.....	.....	.....
	60	.....	1,204	.....	.....	.....

Supplementary Statement Showing Analysis of 1,549 Known Causes of Fires. The United States Figures Being for Three Years, an Addition of 580 to the Statement Handed Out.

Cause of Fire	Ontario		U.S. 3 Years	
	Number	Percentage to Known Causes	Number	Percentage to Known Causes
Conflagrations	.....	.....	78	5.18
Electricity and electrical appliances	12	28.56	135	8.96
Explosions	1	2.38	13	.86
Gas, natural and artificial	2	4.76	47	3.12
Hot ashes and coals, open grates	1	2.38	29	1.92
Hot grease, tar, wax, etc	2	4.76	7	.46
Incendiarism	.....	.....	20	1.32
Lightning ..... DX	4	9.55	163	10.82
Miscellaneous, not detailed	1	2.38	81	5.37
Open lights	2	4.77	54	3.58
Oils and hazardous materials	1	2.38	94	6.24
Smoking and matches IX	6	14.28	229	15.20
Sparks on roof from outside IX	4	9.54	180	11.94
Stoves, furnaces, boilers and their pipes. . DX	6	14.28	325	21.57
Spontaneous combustion	.....	.....	52	3.46
	42	100.00	1,507	100.00
Unknown causes	18	.....	277	.....
	60	.....	1,784	.....

N.B.—The paper read deals only with two years of United States' experience and the various comparisons mentioned therein are subject to change when the above table is used.

Let me explain that the statement now before you is arranged alphabetically under an internationally arranged codification and because of which we have been able, at comparatively little trouble, to amalgamate the information received from the United States with our own.

You will see that the experience on each side of the Border reverses the relative ratio of the two outstanding causes of fires in your class of risk. Electricity, with a ratio of two fires in seven, is the greatest cause of the Ontario fires, but it only stands fifth in the United States experience with one in twelve.

On the other hand, in the United States fires due to heating causes stand first with a ratio of one to five, whereas in Ontario the same cause stands second with a ratio of one fire in seven.

One finds considerable difficulty in satisfactorily explaining to himself, let alone to others, how the difference in respect of the fires from heating plants comes about. It may be, and

it probably is, due to climatic conditions, although on the first impulse one would say that would be a reason for fires in Ontario from such cause being greater than in the United States. Let me put it to you this way. In our northerly climate we expect continuous and at times very cold weather and we build accordingly. It is a safe proposition that where a hazard exists and is known and appreciated it is almost certain to be properly safeguarded, but also that the reverse applies and danger is always to be apprehended where the same hazard exists but is not realized. Our six fires in Ontario from this source have only involved a loss of less than $5,000 all told.

Heating Plants

You will probably ask the question, "What must we look out for in our heating plants?" and to be very brief these are the outstanding features:

1st. That the heating plant should be in a centralized unit, in a building of fire-resisting construction detached from the main building; or, if attached, properly cut off by standardized fire door.

2nd. That the chimney be of standard construction with flue lining.

3rd. That bituminous coal be kept and stored outside of the boiler house and only a day's supply be brought in.

4th. That all steampipes be kept clear of woodwork. The danger of fire starting from steam pipes is not generally appreciated, but it is a real one.

5th. Where stoves (coal or wood), are used, whether for heating or cooking, they should be set on feet or with an air space underneath, the floor to be properly protected by sheet metal and the stove pipes to vent into substantial chimneys and be regularly cleaned out.

6th. Be careful to see that the heating and power plant be kept scrupulously clean of rubbish and litter.

All these suggestions should receive double consideration and attention when the heating plant is within the main building, where by reason of its position it is a much more serious menace than if it was in a detached or non-communicating building.

I have refrained from entering into unnecessary detail, nor have I even touched upon the correlative dangers from auxiliary heating by means of gas, alcohol, coal oil and electric stoves. Sufficient on this whole point to say that heating by any and all means is a danger that is ever present and should have the most careful and constant attention.

Electricity and Electrical Appliances

This, as I have already pointed out, has been the direct cause of twice as many fires in Ontario as any other known cause. Undoubtedly electricity is the safest form of lighting for institutional buildings, but it must be ever remembered that excessive voltage will break down insulation just as surely as an excessive water pressure will burst pipes and hose. In these days electricity is being used to provide the motive power for all kinds of appliances and instruments, and there is not a hospital of any size where special cooking and warming of food is not distributed on floors by way of diet kitchens.

In many institutions, particularly in the older ones, where electricity was introduced before the Hydro-Electric Commission's rules were put into operation, it is well known that the installation is not adequate to control the excess current required by the additional uses to which it is now put. Moreover, and I now speak from personal knowledge, extensions required to meet the increasing demands are frequently made by employees of the institution without regard to the consequent overcharging of a circuit or system. Fuses are blown out and this occurrence instead of being accepted as a definite notice of trouble, is ignored, proper fuses are replaced with others of a higher amperage and the trouble, instead of being cured, is accentuated. The safety valve might just as well have been discarded.

In my own mind and after a thorough investigation, I am fully satisfied that the most serious fire we have had in Ontario, in your class of risks, for many years, was directly caused from operations just mentioned.

It is impossible in a general paper of this kind to enlarge upon the many ways in which fires have been, and will continue to be caused from the use of electricity. May I give this word of counsel. Every institution where human beings are housed should be inspected, at least once a year, by an official of the Hydro-Electric Commission and his recommendations, whatever the cost, should be immediately carried out. They are trained to know what should be; neither you nor I are, and if no other benefit is obtained from this paper I shall be well satisfied if this one recommendation is so indelibly impressed upon you that you will be compelled, for your own peace of mind's sake, to act accordingly.

Smoking and Matches

Really there are two distinct causes embraced under this heading, but whether you consider them singly or as unheavenly twins does not much matter.

The fact that in Ontario and in the United States one fire in seven is from this combined cause is enough to make one sit up and take notice.

Like the poor, we have this cause with us always and everywhere. It will be so to the end of days. It is wholly childish to say that smoking should be prohibited, that would not be the the only prohibition that failed to prohibit. Sick people won't smoke, convalescents and officials will. Only last week I visited a public ward in one of our city hospitals where I found two men sitting up in their beds quietly yet stealthily puffing at what are not inappropriately called "coffin nails."

If we cannot control the habit of smoking we can with more or less success limit the use of the match to the safety match; the "strike anywhere" type should be entirely done away with.

Oils and Hazardous Materials

In all hospitals, and in many institutions of other types, it is necessary to keep on hand considerable supplies of ether, alcohol, gasoline and other inflammable liquids, and that they are a distinct fire hazard is borne out by the fact that about one fire in twenty is directly attributed to that source. In many institutions it is the practice to keep quantities of these liquids in supply rooms on each floor. Possibly this cannot be avoided, nevertheless, it is a practice which should be discouraged.

I have before me the record of a fire in a General Hospital in a southern state which started in a small closet from the use of a match while a nurse was drawing alcohol. The nurse and several patients were burned to death in this fire.

Paints and Oils and Carpenters' Shops

I have no particular figures to give you regarding fires in institutional paint shops, machinists' or carpenters' shops, but I am constrained to sound a note of warning. It has been my fortune to inspect a large number of institutions during the past few years and positively I find myself even now shuddering at things I have seen. I have in mind two particular cases where I found in the basement of old and combustible buildings, in which several hundred inmates were housed, a condition of things almost unbelievable. Here in one case side by side was the paint shop, full of rubbish and litter, oily waste and rags on shelves, floors and in cupboards; right adjoining was the furniture repair shop in a similar condition and next door to that the carpenter's shop full of combustible material. From

the ceilings of rooms were suspended the steam pipes, part of the system circulating throughout the basement, and at the time of my visit the temperature was considerably over summer heat. The one I am referring to was worse than the second, but that was bad enough to create a feeling of dread.

I only refer incidentally to these cases to warrant the suggestion that institutions are not factories and that in no building, housing inmates, should workshops such as indicated be allowed to exist.

Spontaneous Combustion

From the statement in your hands it would not appear that many fires in hospitals, etc., are due to natural ignition. We have none recorded in Ontario in five years and only thirty-five in the United States in two years. I may, however, be pardoned if I draw on my imagination. I am firmly convinced that if we had eyes to see the beginnings of the twenty per cent. of fires of unknown cause we should find quite a large proportion of them starting from this cause. There is, however, about us all a more or less doubting-Thomas attitude to the process of natural ignition notwithstanding my remarks at the beginning of this paper. For myself I am convinced that it is of more frequent occurrence than statistics reveal. Few will deny its frequent occurrence in bituminous coal, in painters' rags, or in plumbers' overalls, but more will deny its possibility from the mops we use to polish our floors, or the rags we use to apply furniture polish to our furniture. The housekeeper's closet containing our cleaning and polishing materials should be watched with constant zeal and care for there we find the breeding place of a host of fires.

One of the most disastrous fires of which I have a record occurred in a New York State Hospital in 1923 from this cause. Twenty-five lives were lost in this fire.

May I therefore impress upon you that good housekeeping will obviate many fires from which we suffer because of indifference or carelessness exercised in regard thereto.

I have exhausted your patience, but not the subject, and yet ere I close I would like to make mention of two matters.

X-Ray Films

In the course of our work we have found many instances of a serious menace in the place and manner in which X-ray plates are kept and stored in hospitals. Up to a very recent period the film used by X-ray operators has been on the nitro-cellulose base, and hundreds, nay thousands, of these are necessarily

kept for reference. There is no need of my reminding you of the terribly dangerous character of this film. Where and how do you store them? Have you given it a thought? For mercy's sake keep them out of your rooms and passage-ways and house them sanely.

To-day we have the safety film, but it is not in general use. The old order of things still continues.

I have only time to sound this note of warning, but if you are interested please write our office for further information.

Finally, suffer this word, I believe that all hospitals and institutions where say 100 people are housed should be compelled by law to have their buildings equipped with a standard system of automatic sprinklers, for it is the only known and proved efficient fire detector and extinguishing device known to the modern world. If you want peace of mind for yourselves, and security from the danger of fire for those in your care, you can secure it by, and only by, the automatic sprinkler.

A California hotel, one of the gigantic ones in that beauty-land, has been equipped with this device and a card is hung in each room bearing this message:

"When you lie down for restful sleep,
Sprinkler heads their vigil keep,
If fire occurs don't be concerned,
You may get wet, but you can't get burned."

NURSING

Dr. J. McKay, of Oshawa, considers that all nurses obtaining the R.N. diploma in Ontario, should proceed to their degree thus:

1. A 3-year course.
2. A standard requirement for entrance to training.
3. A standardized educational programme in training.
4. Governmental examination;
5. Specialization for certain classes of work not to be permitted until completion of the general course; and then only after post-graduate training of at least three months, preferably twelve months;
6. All hospitals unable to provide the required training in all the different departments into which medicine is divided should be required to provide affiliation with other institutions, better situated in this regard, in order that the nurses in training will all have like opportunity

for teaching and observation. In all these courses a public health service of three months should be insisted on, the lecture work and field work being provided under some active department of public health doing accredited work in its community. In this way only can the nurse in training become properly oriented to the:

(*a*) Field of preventive medicine;
(*b*) The care of communicable disease;
(*c*) General home nursing in the average home;
(*d*) Pre-natal, intra-natal, maternal, infant, and child welfare care;
(*e*) Social welfare and study of environment;
(*f*) Hospital social service, visiting, almoner, and welfare work;
(*g*) It appeals to me that thus only will a nurse in training get a sympathetic understanding of all those trials and tribulations, domestic worries, financial troubles, and ability or disability to weather the storms and distresses of illness, and to meet life face to face, which mean so much to a patient, particularly a mental one, and the chance of that patient's recovery. The sociological studies which would be in this way presented to nurses in training would be of untold value. The practical methods of treatment and of control are so different in the home life to those of institutional practice that many a well-trained competent nurse is unable to properly handle a patient because of a lack of tact and understanding and realization of limitations, in this very regard.

Dr. McKay is quite aware that certain objections have been raised to the promulgation of such ideas and the placing of them in practice. These are the usual ones that have been brought to his notice:

1. There is a definite lower social scale from which probationers in mental hospital training schools are selected;
2. A lower educational standard is accepted and will serve;
3. There is a lower training standard and requirement of work;
4. There is not the opportunity for the practice of real bedside nursing;
5. There is difficulty in securing the right type of medical men as teachers;
6. There is disproportion in pay allotment to the nurses in training;

7. The difficulties of transportation are very great;
8. There would be difficulty in securing board and maintenance, in the public health work at least;
9. There would be trouble to satisfactorily co-ordinate the work in the different institutions so as not to have conflicting elements creating disturbance;
10. There would be a lack of that intimacy of relationships between superintendents, staff, and nurses in training, leading ultimately to inefficiency and incompleteness of training.

If at all possible, there should be every endeavor made to maintain some definite training school requirement, whether the course be complete or incomplete, in all the small general hospitals of the Province; for without nurses in training the cost to a patient will be greatly increased for hospitalization, if private nursing is required for each patient, and a special nurse has to be retained for that patient. All hospitals, large or small, are entitled to provide for every patient service at cost. Let patients who have the means, and so desire, secure whatever special type of care the hospital is willing to provide, over and above their usual nursing service, but let ordinary patients have optimum service at cost. Municipalities should have the privilege of hospitalization suitable to their requirements, at cost, and proper nursing service. Perhaps there might be some possibility of grouping certain of the smaller hospitals, in definite areas of the Province, so that their nursing-training course might become more efficient and effective. Certainly, in every case, they should be affiliated with those other institutions, which can provide the necessary training to allow their graduating nurses to satisfy the requirements of standardization for their R.N. diploma, and to be able to meet graduates from other training schools on an equal basis, when they take up their field of labor in the world at large.

THE HEALTH NURSE IN SURVEYS

By Miss Edith Fenton

The Health Nurse in Surveys is a subject about which volumes might be written by one qualified to do so. I will confine this paper to the health nurse in the Wentworth Survey with a few general deductions therefrom which might be applicable to other surveys of the same type.

The survey of pre-school and school children in the county of Wentworth during the fall of 1923, was carried on under

the leadership of the Canadian Tuberculosis Association, with the financial assistance of the Canadian Red Cross Society. This was a medical survey, made by physicians with nurses assisting, and to divorce the work of one group from the other would be undesirable and impossible. Probably a general résumé of our plan of work will give the clearest conception of the nurses' part therein.

Official preliminary arrangements including the securing of the approval of the school boards, the enrolment of physicians who volunteered their services and the preparation of record forms, had been made by the local committee. On September 3rd, two nurses and one stenographer began work, preparing supplies, making ready examining rooms and securing preliminary histories. Several days before the appointed date of examination an explanatory letter and permission slip was sent home with each child, and a child was examined only with the written consent or in the presence of the parent.

On September 8th the survey began in Dundas Public School under the following plan:

Mornings—first three days of week—children of group previously notified, now with consent slips signed and preliminary history recorded, were weighed and measured by the nurses, examined by general physicians, and by eye and ear, nose and throat examiners.

Afternoons—of same days—same group had temperature, pulse and respiration taken and intra-cutaneous tuberculin tests made.

48 hours later—same group had intra-cutaneous tuberculin tests read, special chest examination and a general check up on whole examination.

Obviously general examinations and intra-cutaneous tuberculin tests could not be made during the last days of the week because of the impossibility of reading the results of the test and giving the final check on Saturday or Sunday. This gave the nurses and clerical staff several mornings at the end of each week in which to clear up past work, keep records in order and prepare for the following week.

Height and weight measurements were made with child in stocking feet and in ordinary indoor clothes. Percentage computations were made, using Toronto average tables for six years of age and over, and Emmerson's tables for the pre-school group.

Temperatures were taken in the classroom between 2.30 and 4 p.m., and where over 99.4 the temperatures were taken

again days or weeks later in order to offset possibility of rise in temperature due to excitement or other minor causes on the first taking. All intra-cutaneous tuberculin tests were made and read by two physicians from the Mountain Sanatorium, thus bringing about uniformity and hence reliability.

Special chest examinations were made by experts on cases referred by general examiners as "suspicious," on known contacts or those with suspicious family history, and also on numbers of children who were underweight, generally below par, or who had history of influenza, measles, whooping cough, etc.

As previously stated, work was begun in Dundas with the larger schools, and every effort was made that there might be as little interference as possible with the ordinary school routine. Activities were confined to the children of one or two classrooms at a time, and except for the kindergarten, which was dismissed for a week that we might use their room, other classes continued their regular work. With the smaller rural schools work was suspended for the time being, sheeting divided the room or rooms into small compartments and with five to ten doctors present very little time was lost. In the rural communities many mothers brought their pre-school-age children to the school on appointed days in order that they also might receive the benefit of a thorough examination. In Dundas one week of afternoons was reserved for the pre-school group, a bright, sunny basement room of the public school having been offered by the school principal for the purpose.

After completion of examinations in all schools as above, X-ray work was begun. The portable machine of the Ontario Department of Health was set up in Dundas public school and the tuberculosis diagnostician of the department and three nurses carried on for a number of weeks. X-ray of chest was routine on all children examined in survey, but because of distance and difficulties of transportation slightly less than 100 rural children, most of these specially selected, were included; 1,050 films were taken and all ages from six months to eighteen years were represented.

In all, almost 1,400 children were examined, divisible into international age groupings as follows:—

0- 4 years	117
5- 9 years	609
10-14 years	552
15-18 years	114
	1,392

Sixty-five per cent. of the children were born of Canadian-born parents.

Thirty-one per cent. of the children were born of British-born parents (meaning British Isles).

Four per cent. of the children were born of foreign-born parents.

Four hundred and six, or almost one-third of the total number were rural children and apparently of average rural Ontario type.

Nine hundred and eighty-six, or slightly over two-thirds were urban children with general type above the average. The town of Dundas seems to be particularly happily situated with comfortable homes, very little poverty, and has had school medical inspection for some years.

The staff engaged on the survey varied at different periods according to the need. While complete physical examinations were in progress the maximum staff was at work, and in addition local volunteer help was much appreciated. To be more specific:

1. *Medical Staff.* In all some thirty-five members of the Wentworth Medical Society gave one to four mornings a week. Physicians from the Mountain Sanatorium spent considerable time in special chest examinations and in giving intra-cutaneous tuberculin tests. The Ontario Department of Education loaned two doctors for short periods and the tuberculosis diagnostician of the Ontario Department of Health, did all the X-ray work and assisted materially in many other ways.

2. *Nurses.* The local committee employed one full-time public health nurse who was not connected with any other organization and was responsible entirely to said committee; four other public health nurses were loaned by the Departments of Health and Education and the Dundas school nurse gave practically full time for a number of weeks.

3. *Clerical and record work* was done largely by the nurses, one full-time stenographer and two others for short periods.

Probably the most difficult and certainly the most prolonged part of our work began after the survey proper had ended. That is, the gathering together of the many facts obtained into statistical form. Under the guidance of the chief statistician of the Provincial Department of Health, two public health nurses and one stenographer started this early in November. Weeks grew into months and at every turn there seemed to be more ahead than had already been done, but gradually a maze of dots and figures took more tangible form. Final statistics and summaries

were made by physicians with assistance of staff as mentioned. At this time also, individual letter reports were sent to the parents of all the children examined. The reading of 1,050 X-ray films and recording of findings of same took several months to complete and was all done by chest physicians and radiologists in time spared from their regular work.

Looking back from a vantage point gained by experience and especially from the midst of the mysteries of statistics, the imperfections of our plan became evident. Were we doing a like piece of work again we would suggest the following:

(1) Instead of merely inviting, we would urge parents to be present at the examination of their children, in order that we might receive more accurate history of each case, that the mother would hear first-hand of her child's condition, and that reporting later by letter would be unnecessary, except perhaps in special cases.

(2) Might a change in order of examination be advisable? One doctor who gave considerable time and thought to the survey suggested that height and weight measurements, intra-cutaneous tuberculin tests, temperature, X-ray, eye, ear, nose and throat examinations, etc., might all be recorded before child was brought before general or chest physicians—thus providing valuable aids in diagnosis.

(3) Further efforts to standardize findings. With about forty physicians engaged in the work a varied nomenclature was inevitable. For instance tonsils were described in at least fifteen different ways—diseased, unhealthy, ragged, scarred, pitted, scattered, enlarged, large, x, xx, xxx, infected, injected, congested, cryptic, etc.—thus making any classification by non-medical persons well-nigh impossible. It seemed as though the use of a form on which likely conditions were already printed, and either checking or underlining system used by examiner would help to overcome this difficulty, at least in the recording of findings on the general examinations.

But mere machinery counts for little of itself, and this survey owes much to the spirit of co-operation and good will which characterized its activities. The hospitality of the citizens of Dundas and West Flamboro, the active and very real assistance of organizations and individuals, the good team work which smoothed over many a difficulty and the general *esprit de corps* of those engaged in the work made the Wentworth Survey a possibility, a realization, and a pleasure!

THE HOSPITAL AS A PUBLIC HEALTH CENTRE*

By R. E. Wodehouse, O.B.E., M.D., D.P.H.,
Secretary, Canadian Tuberculosis Association, Ottawa, Ontario.

Before actually entering upon the subject set for me, I think it is important:

(a) To decide exactly what we mean when we speak of a health centre. Are we all agreed that this is the most satisfactory name to apply to the particular agency we have in mind?

(b) What is to be the attitude of the health centre, or whatever name we choose to apply, towards the practising medical man? Is it to be an aid for him in the diagnosis of different ailments reported by his patients, Is it to see only patients referred by the physicians? Is it to refuse any treatment whatever, unless requested by the physicians referring the cases? In other words, is it religiously to refrain from any tendency to alienate the patients from their family doctors?

(c) Is the executive of the hospital, either the superintendent or the governing committee, enthusiastic towards the project, and does there exist sympathetic and constructive co-operation between these executive people and the health department of the community?

These three things settled, the following may be said in favor of "Why should a hospital house a health centre?":

1st. Because a modern city divides its medical costs for the year into two portions, practically equal in amount—$1.50 a head a year for prevention of disease and $1.50 a head for the care of its indigent sick.

2nd. Because the practice of prevention of unnecessary deaths is not now limited to efforts to control exanthymatous diseases. The three diseases killing the largest number of mature people, that is of the ages twenty to forty-five years old, are: (a) tuberculosis (both male and female); (b) (in women) childbirth and its complications, and (c) heart diseases (both sexes) . . (covered by studies by Homer Folks, New York State Charities).

3rd. Because the hospital has all the technical equipment available to aid in examination for the detection and treatment of all types of ailments. In addition, the expert medical men of the community are available and daily associated with the hospital.

The hospital seems to me the natural centre around which to build up any community medical service. The people already

*At the meeting of the Ontario Hospital Association, Academy Building, Toronto, Ontario, Thursday, October 15, 1925.

have the mental attitude which causes them in medical trouble to seek assistance there. It should afford the hospital management and medical staff a mellowing contact and broaden their outlook into that of preventing debility as well as remedying damage already done.

The standardization of hospital records and practice should assure perfect service in the clinics, in so far as professional care and practice is concerned.

It should allow the hospital to win the approval of many more citizens than that circle now coming within the knowledge of its good service, simply through aid given to a friend at a critical moment of life and death.

It should grant nurses-in-training an opportunity for district follow-up work and study of social factors in regard to clinic cases.

It should foster the practice of nationalized medicine along the lines the medical men prefer, or, effectively limit this tendency of development through the practice of the hospital accounting department which checks up clinic attendants as to their ability to pay for medical advice at the offices of practitioners.

In my opinion, whatever service is deemed desirable in a community could be best procured, from the point of view of expert attendance for the patient, and from an administrative angle, at a standardized hospital.

Canadian Hospitals

FURTHER AID FOR HOSPITALS

Representatives of a large number of Ontario hospitals met the Provincial Secretary a few weeks ago in the Parliament Buildings and presented a number of requests for consideration.

Major Moncrieff, President of the Ontario Hospital Association, introduced the deputation, numbering over one hundred, to Hon. Lincoln Goldie.

"We are not here on any mercenary quest, but to speak for these institutions which are senior to education, good roads and other departments," he said. "We are here in no critical or hostile spirit, but to help you, and we think you can help us."

Dr. John Ferguson presented the first request: That the Act be amended making it permissible to increase the per diem rates to municipalities for indigent patients from $1.50 to $2.

In support of this demand Dr. Ferguson stressed that, notwithstanding the most rigid economy, the cost of maintenance, wages and food and supplies had steadily increased. Other reasons were the trend towards standardization of hospitals and the cost of scientific equipment.

Dr. Langrill, Superintendent of the Hamilton General Hospital, presented the next request: That one-half the amount payable for indigent adult patients be allowed for indigent infants born in hospitals.

That the government grant should be extended beyond the present limit of 120 days in special cases, was the request put forth on behalf of the Association by Major A. H. Murphy, London.

An increase in the government per diem grant for hospitals from fifty cents to sixty-five cents was requested by Mr. Revell, of the Board of Trustees of Brantford General Hospital.

The final request of the Association was that the Act be amended so that townships bordering on cities of 100,000 population should be compelled to pay for their own indigent patients.

The Provincial Secretary: "I think you have a very great grievance. We hope to introduce legislation to clean up that angle."

Replying generally to the representations made, Hon. Lincoln Goldie agreed that the hospitals in Ontario certainly had claims, and he honestly sympathized with all who were closely connected with those institutions.

"I don't know just how these requests compare with what you asked last year, but I think they are pretty much the same. If we had granted what you asked it would have amounted to $565,000 a year, which, while I would very much like to recommend—in the present state of our finances I hardly feel justified in doing so."

He pointed out that government payments to general hospitals had increased from $184,252 in 1915 to $720,000 in 1925. Payments for charitable institutions had jumped from $382,000 to over $1,200,000. "So without increasing our grants automatically we are handing out much more money." Provincial institutions cost the government over $3,000,000 last year.

"I agree that more responsibility should be placed upon municipalities. I honestly believe it is a duty to do more at home and less in Toronto. I considered a great deal about introducing legislation this session to put hospital deficits into next

year's taxes. It is the right thing to do, but one difficulty is it would be apt to wean the charitable people away from their interest in the hospitals. What is best to be done is pretty hard to decide."

REGISTERED NURSES

The Ontario registered nurses met in Belleville in April. Miss Jean Gunn described nursing conditions in Europe. The nursing is done by religious orders mainly. They go out of the hospitals for practical work. In central Europe there are twelve nursing schools for 64,000,000 people. They are gradually adopting the best methods from other countries.

Dr. F. C. Routley addressed the nurses on organization.

The deputy fire marshal and inspector of training schools spoke on fire drills in hospitals.

Dr. Geo. Stobie discussed nursing in outlying districts and their emergency work.

It was decided to have an extension course at the University of Toronto, commencing August 16th.

Miss Helen Carruthers and Miss I. McIntosh were appointed chairwomen on the private duty section; Miss Clare Brown as secretary-treasurer; Miss Gray, of Chatham, representative on the programme committee and Miss North, of Barrie, on the membership committee.

Miss Gunn reported that the Red Cross had added six additional hospital outposts in Ontario. There was a total now of sixteen, with a total of ninety-two adults' beds and twenty-seven children's beds. Thirty-two graduate and undergraduate nurses were employed. Patients treated during the year numbered 1,020 in-patients and 1,629 out-patients. Nurses had made 1,397 visits.

One resolution of particular general interest was:

Resolved that the R.N.A.O. approach the Ontario Hospital Association and the Ontario Medical Association to seek their co-operation endeavoring to influence the press to suppress publications which bring unfavorable criticism on the hospitals, thereby lessening the confidence of the public in the institutions.

It was resolved that the Board of Directors of the R.N.A.O. appoint a small committee to study the best methods of establishing co-operation between the R.N.A.O. and the Ontario Medical Association.

Withdraw from Affiliation

The Association approved the withdrawal from affiliation with the National Council of Women, the Social Service and

the Child Welfare Associations. The approval followed a very interesting discussion in which particularly interesting angles of the affiliation were brought out in a concise and comprehensive manner.

DISAPPROVE PRACTICE

The Association went on record as disapproving the practice of allowing student nurses to act as surgeons' assistants, when a doctor is available. This resolution also brought out very interesting discussion.

Officers elected for the ensuing year were: President, Miss Florence Emory (University), Toronto; 1st Vice-Pres., Miss Edith Rayside (General Hospital), Hamilton; 2nd Vice-Pres., Miss Bertha Hall, (V.O.N.), Ottawa; Sec'y-Treas., Miss Ethel Scholey, (Dept. Public Health), Toronto.

TO HAVE ELEVEN GOVERNORS OF EAST END HOSPITAL

The new general hospital to be erected in East Toronto will receive patients from the city, the townships of East York and Scarboro, and the county of York. It is announced that the hospital will be controlled by a board of eleven governors, of whom six will be elected by subscribers, and five will be appointed; one by the Lieutenant-Governor-in-Council, one by the Township of East York, one by the Township of Scarboro, one by the County of York and one by the City of Toronto. It has also been decided to allow public ward patients to be attended by their own physicians.

Owing to the date of going to press, we are unable to announce the result of the drive for funds which closed on May 15th. Again we wish this new hospital every possible success.

WELLESLEY HOSPITAL TO HAVE NEW WING

Construction of a new wing at Wellesley Hospital, Homewood Place, Toronto, has been decided upon by the Hospital Board. Application has been made at the office of the City Architect at the City Hall, for a permit for the new wing, which will cost in the neighborhood of $100,000. The new building will be of brick and give much-needed additional accommodation at the hospital. Steady growth in the demands upon the hospital space for maternity cases was disclosed at recent meetings of the board, and it was decided to go ahead with the erection of the new wing. Work will begin almost immediately. Stevens & Lee, architects, Charles Street East, are in charge of the construction of the new maternity wing.

TORONTO ORTHOPEDIC HOSPITAL

Sir James Woods, Honorary President of Toronto Orthopedic Hospital, appealed at luncheon, on May 6th, for $175,000 required to pay off the debt, and to enlarge the institution to fifty beds.

A short, sharp campaign has been planned and every cent contributed will go to hospital, a citizen having volunteered to pay the full cost of the campaign.

The campaign will last from June 4th to 18th.

Items

UNIVERSITY COLLEGE HOSPITAL

The Prince of Wales opened, on May 28, the new extensions at University College Hospital. These have been created out of the funds provided by the Rockefeller Foundation. At the same time the Prince opened the nurses' home and medical officers' quarters. At the annual meeting of the hospital, its chairman and treasurer, Sir Ernest Hatch, referred to the manner in which money had been raised without any administrative expenses whatever. To endow the extra maternity accommodation provided through the Rockefeller gift, a band of ladies went out to collect the necessary money. "We did not advertize," the chairman said. "We went and fetched it. In the end £180,000 was collected, sufficient to endow the sixty beds, at a cost of some two per cent. But this is by no means the whole of the story. The interest earned on the earlier collections more than paid the whole of the expenses, and so every pound given is intact for endowment purposes."

FLORENCE NIGHTINGALE HOSPITAL

The Florence Nightingale Hospital for Gentlewomen has completed seventy-six years of active work. This institution was organized by Florence Nightingale herself, who acted as its first lady superintendent before she left England for the Crimea. Its object is to provide gratuitous medical and surgical treatment in acute cases for women of limited means, governesses, artists, hospital nurses, and relatives of the clergy, naval, military, and professional men.

Book Reviews

A Practical Handbook of Midwifery and Gynæcology for Students and Practitioners. By W. F. Theodore Haultain, O.B.E., M.C., B.A., M.B. (Cantab.), F.R.C.S.E., Lecturer, Clinical Obstetrics, Edinburgh University. London: The Scientific Press, 24 Russell Square, W.C. 1. 1926. Price 10/6 net.

This book is by no means intended to take the place of the larger text-books on Obstetrics and Gynæcology, but rather to help the student and practitioner when they have read the more extensive works and desire a more compact view of the subjects. For this purpose it is of value for examination, review and for teaching. Many of the well-known authorities have been consulted and although in some details their views do not coincide with our own, the book on the whole is sound. It is a small book—three hundred pages of good type—and the material is synopsized in a very intelligible and readable way. Authors who feel that they must write books in this manner, however, would do well to leave out that half-baked chapter on the "Artificial Feeding of Infants"; nor can the descriptions of operations be successfully introduced into such books without the more lavish use of small diagramatic illustrations. Apart from these few objections, the book is, of its kind, excellent.

The Modern Hospital Year Book. Sixth Edition, 1926. An annual reference volume on the building, equipment, organization and maintenance of hospitals and institutions, also a current purchasing guide to hospital requirements. Published for hospital executives, building and equipment committees, purchasing departments and architects. Copyright 1926. Price $2.00. Compiled, edited and published annually by the Modern Hospital Publishing Co. Inc., Chicago, Ill.

The Modern Hospital Publishing Co. are to be very heartily congratulated upon the sixth edition of their "Year Book." As stated on previous occasions, this annual volume represents the organization, maintenance and equipment of hospitals all over the American continent. A considerable portion of the book, too, is devoted to the requirements of every purchasing agent and should be found invaluable where an institution intends re-equipping any particular department. No architect or hospital committee should overlook this book, it being almost indispensable to them.

RECONSTRUCTIVE SURGERY

Harry E. Mock, Chicago (*Journal A. M. A.*, Feb. 20, 1926), reports the case of a boy, aged twelve, who was born without arms—not even a stump or a button of tissue showed. The roentgen-ray findings showed a small, under-developed upper fragment of humerus three inches long on the right side and about four inches long on the left. These fragments of bone lay along the outer border of each scapula. The glenoid fossa on either side was shallow and poorly developed. Each head of the humerus was small, under-developed and in close proximity to the coracoid process. The stumps were freed. In order to cover the exposed portion of the humerus, and to help form a well rounded stump, the lower half (from the third to the seventh costal cartilages) of the pectoralis major muscle was dissected free from the chest downward toward its costal origin and bisected just above this origin. Its small insertion on the humerus was left intact. This freed portion of the pectoralis major was brought over and wrapped around the exposed portion of the humerus, covering over the end of the bone as well, and was sutured to the fascia of the deltoid anteriorly and posteriorly and behind the end of the bone. Thus the muscle flap of the pectoralis filled in the space where the biceps and coracobrachialis were absent. Two months after the operations had been performed, the boy returned to the Spaulding School for Handicapped Children, and was placed under a most thorough course in muscle training exercises and occupational training. He was an unusually bright boy anyway and soon learned to use his stumps of arms very effectively. Next, artificial arms were provided for him. He does practically everything for himself now. The two most interesting features about his case are the developments in the bone and shoulder joint and in the transplanted muscle. A recent roentgenogram shows well developed glenoid fossæ, and the head of each humerus is well rounded and apparently normal. Each humerus has shown decided growth. The transplanted pectoralis major muscles can be contracted at will. The case demonstrates the need of coordinating the work of reconstructive surgery and education. The two are inseparable in rehabilitating the disabled.

BAD HABITS FORMED BEFORE SCHOOL DAYS

The pre-school age is the habit forming period. It is at this time that bad habits can be checked and good habits formed, says Helen King in an article on "Corrective Exercises for the Pre-school Child," in the October *Hygeia*, popular magazine of health published by the American Medical Association.

In giving corrective exercises for specific defects, the mother's co-operation and interest are obtained, the child's defect is explained to her, and the importance of early treatment in preventing established deformity in later life is

emphasized. She is then shown the special exercises to be given her child and taught to do them at home. Twice a week the corrective instructor puts the child through the exercises at the school, changes some if necessary, and teaches him to feel that it is a part of the daily régime to make him a strong, straight child.

SINUS RESPIRATORY ARRHYTHMIA IN CHILDREN WITH RHEUMATIC HEART DISEASE

Observations made by Francis H. McCrudden, Boston (*Journal A. M. A.*, Feb. 20, 1926), on children with rheumatic heart disease do not confirm the opinion that the presence of sinus respiratory arrhythmia is evidence of a normal heart. In his experience, this form of arrhythmia is absent only in the most serious cases of heart disease. Of 100 cases showing rheumatic heart disease with valvular injury and severe enough to be bed cases in the hospital, eighty showed sinus respiratory arrhythmia evident enough to be easily detected on simple auscultation. However, the sub-group of twenty patients without arrhythmia presented far more severe forms of the disease. Of the twenty children without arrhythmia, seven died within a year; seven more developed complications or further heart injury or became worse in some way after discharge and had to be readmitted to the hospital; two more were getting worse; only one was doing well, and the other three did not return. Of the eighty children with arrhythmia, none died, returned to the hospital, or became worse.

PERSONALS

The Council of the University of Edinburgh have decided to confer on Dr. Alexander Primrose, Dean of the Medical Faculty of the University of Toronto, the Honorary Degree of Doctor of Laws.

The twentieth anniversary of graduation of the class of '06, Medicine, University of Toronto, will be celebrated on June 1st. Will all members kindly send their postal addresses to the secretary of the year, Dr. D. Kilgour, 70 Gerrard Street East, Toronto?

Dr. Frederick W. Wright, a graduate of Toronto University, and son of Dr. W. H. Wright, of Tottenham, has been appointed resident surgeon of the Hanover, Pennsylvania, general hospital.

Dr. Jose P. Fontonelle, of Brazil, and Dr. James A. Harbison, of Ireland, were recently in Toronto looking into the system of public health administration here.

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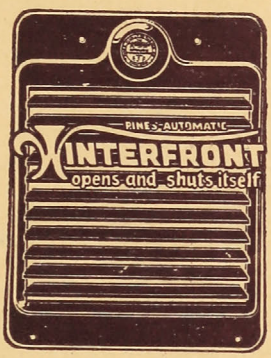

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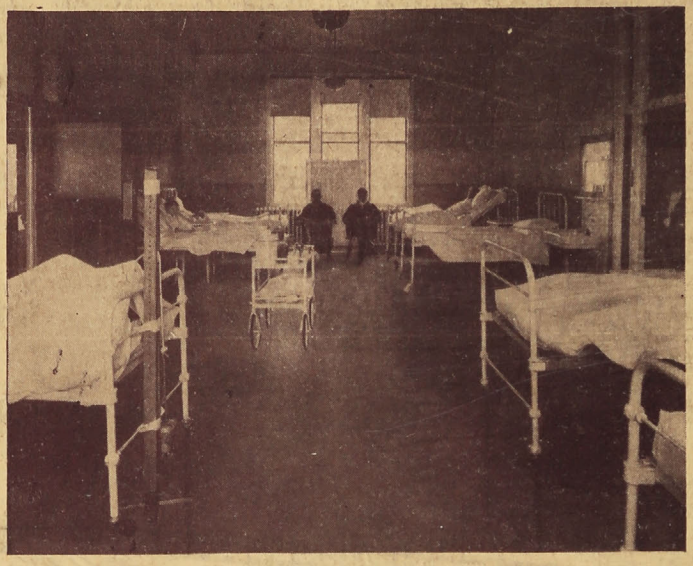

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