WHY A MODERN HOSPITAL COSTS SO MUCH

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"Happily, curative and preventive medicine and surgery do not stand still. They are progressive sciences, and this was probably never more true than to-day. The tireless efforts of devoted workers, in the clinical sphere and in the laboratory alike, are ever wresting fresh secrets from nature and adding to existing knowledge in many different fields."

HIS MAJESTY THE KING.

Why a Modern Hospital Costs so Much.

FEW of us, perhaps, fully realise how great is the difference between a hospital in 1934, with its up-to-date equipment, and the kind of hospital that existed a hundred years ago. Thousands of men, women and children are being saved every week from suffering and death, which in the old days must have been their fate. This is due to the constant efforts that are being made to find new means of *preventing* disease, as well as improved methods of curing it, and to reduce the danger and discomfort to patients.

ANAESTHETICS.

It was in 1847 that Sir James Simpson discovered the properties of chloroform, and used it for the first time when performing an operation at Edinburgh.

The son of a struggling baker, he was educated at a small parish school in Scotland, and, when a boy of 14, walked 18½ miles to Edinburgh to study for the medical profession. At the age of 18 he became a qualified surgeon. His first experience of the operation-theatre, however, had such an effect upon him that he nearly gave up the profession altogether. Fortunately, he afterwards thought better of it, and instead determined to find a substance which would produce unconsciousness, and so put an end to the tortures which accompanied every surgical operation in those days.

After numerous experiments, which often made him ill, he tried a drug which he had not tested before. A few minutes afterwards, to the consternation of his friends, he was found unconscious on the floor. When, in a little while he had recovered, Simpson realised that his long quest was ended.

By means of chloroform, as well as other anaesthetics, such as ether and nitrous oxide (or " laughing " gas), operations which would otherwise be impossible can now be performed painlessly. Before Simpson's day patients so dreaded the ordeal that they were often unwilling to go through it, however necessary it might be. Moreover, the shock caused by the pain not infrequently resulted in death. A still more recent discovery enables the patient to be sent comfortably to sleep by means of an injection given in the ward before his removal

to the operation-theatre; so that even the dread of the anaesthetic is no longer felt. This method has already been adopted in some hospitals, and but for the cost would be in general use.

Experiments have proved that, for some operations, pain can also be overcome by local anaesthesia: for example, by freezing the tissues or by injecting cocaine or eucane—methods which have the effect of deadening pain without producing unconsciousness.

LORD LISTER'S GREAT DISCOVERY.

Lord Lister's discovery of the use of antiseptics introduced a new era in surgery. Before his time every operation was attended with grave danger. The patient might appear to be making good progress, but sooner or later the wound would become septic and blood poisoning would supervene, frequently with fatal results. This was almost certain to occur with fractures in which the bone had pierced the skin, and in such cases amputation, though dangerous, was usually the only resource. Lord Lister discovered that the trouble was caused by germs which had been introduced from outside. He then found that their entry could be prevented by the use of a solution of carbolic acid.

Further experiments proved that germs can also be destroyed by heat; and all the dressings and instruments used in an operation, as well as the rubber gloves which every surgeon now wears when operating, are sterilised by steaming or boiling.

It was by constant observation of patients in the wards of the Royal Infirmary, Edinburgh, and at King's College Hospital that Lord Lister was able to make his great discovery. Only in the wards of a hospital could he have studied a sufficient number of cases to enable him to find a solution of the problem.

THE WAR ON MICROBES.

The microscope has revealed the fact that many of the diseases from which we suffer are caused by similar minute organisms, which invade the body and wage war with the white corpuscles of the blood. Some of these germs have been identified, and many diseases, such as typhoid fever, tetanus ("lockjaw"), diphtheria and tuberculosis, have in consequence lost much of their terror. Not only have

these bacteria been discovered and distinguished one from another, but we now know much about the way in which Nature deals with them; and that is the first step towards imitating Nature.

It has been found that, speaking generally, the body can resist a second attack by a particular kind of germ if it has already recovered from an attack by the same kind of germ. Thus typhoid fever can be prevented by introducing killed typhoid bacteria into the system. This procedure causes but little discomfort, and by its means many thousands of lives were saved during the War. The necessary apparatus is installed in the pathological departments of the leading hospitals, and investigation is constantly going on.

X-RAYS AND RADIUM.

The discovery of X-rays has enabled the operating surgeon to locate pieces of fractured bone and foreign bodies, such as bullets or pieces of shell, so that operations can now be performed successfully in many cases where otherwise the conditions leading to disability could not have been ascertained. Nearly all the pioneer work in the development of X-ray treatment has been carried out in the Voluntary Hospitals. If the elaborate apparatus required had not been available the same progress could never have been made.

X-rays are also often used for the detection of tuberculosis of the lungs, abdominal disease, tumours on the brain, diseases of the roots of the teeth, and other internal disorders, by means of special fluids which are opaque to X-rays. Bismuth, for instance, can be watched in its progress through the stomach and intestines, and any obstruction promptly detected. X-rays are also used for the treatment of disease.

Of very great importance has been the discovery of Radium, and the advance which has since been made in the treatment of disease by its healing rays. Radium is being used with a considerable measure of success in the treatment of cancer.

"There is one thing for which we English people are noted amongst the nations of the world, and that is for the glorious record and tradition of our Voluntary Hospitals."

Colonel B. J. T. FORD, T.D., D. L.
(Chairman, British Hospitals Contributory Schemes Association)

OTHER RECENT ADVANCES.

Another new method of treatment which has arisen in the last sixty or seventy years is electro-therapy, or the use of electric and galvanic currents. This is applied with increasing success for the re-development of wasted muscles, restoration of voluntary movement, and relief of pain. Every up-to-date hospital now has its electrical department.

Treatment by ultra-Violet Rays or Artificial Sunlight is also used with very beneficial effect for tubercular glands and joints, particularly in the case of children; and for obstinate skin diseases, which can now be cured in a fraction of the time that was formerly required.

In the treatment of the eye and of the throat great advances have been made through the invention of those ingenious instruments, the Ophthalmoscope and Laryngoscope, by means of which the back of the eye and the interior of the throat can be accurately seen. Another new invention, the Electro-cardiograph, has enabled careful records to be taken of the movements of the heart and pulse, and faults to be detected which thirty or forty years ago were difficult, if not impossible, to diagnose.

During the War striking progress was made in surgery of the face (Plastic Surgery), many cases of mutilation by shell-wounds being wonderfully restored by rebuilding the missing features with skin or cartilage from other parts of the body. Bone-grafting and transplantation of tissue have now become a recognised branch of surgery, and injuries such as torn tendons are treated by darning them with living tissue.

New light, again, has been thrown on the normal activities of the body by recent research into the functions performed by the endocrine (or ductless) glands. When one or other of these glands is failing to operate in a normal way, a means has been found of supplying the deficiency by injection. A notable instance is the artificial preparation and injection of Insulin, which has revolutionised the treatment of diabetes and has proved effective even in cases where the patient was in the last stages of the disease.

Tranfusion of blood, or the injection of a supply of healthy human blood, when a patient is in danger of collapse through weakness, is another recent innovation in

hospital treatment. To meet the needs of the hospitals the British Red Cross Society has organised a Blood-transfusion Service; a surgeon has now only to ring up headquarters at any hour of the day or night, and a "donor" will be supplied immediately. In this way many lives are now saved.

THE DEVELOPMENT OF AFTER-CARE.

Experience has shown that no hospital treatment can achieve really good results unless satisfactory provision is made for the after-care of the patient. Thus it is that the best hospitals to-day always have an Almoner's Department. To quote Lord Moynihan: "The almoner at her best is really the doctor's ambassador on the domestic hearth."

THE REVOLUTION IN NURSING.

Of all the changes that have taken place in hospitals during the last hundred years, nothing is more striking than the evolution of the modern nurse. It was a physician of the early-Victorian period who remarked: "We always engage nurses without character, because no respectable woman will take such work." Then came the Crimean War, and Florence Nightingale was sent by the Government to take charge of the military hospitals, whose terrible condition had aroused public indignation throughout the country. This gave her the opportunity to put her theories into practice, and so led to the great revolution in nursing, which will always be associated with her name. With money subscribed by the nation in gratitude for her services, Florence Nightingale founded and endowed the first training school for nurses. Every nurse employed in a hospital has now to go through a regular

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"I make open confession here that I should view with alarm and misgiving the loss of something very rich and very rare in our public life if we dammed up all those streams of generosity that call to people to give consciously with the knowledge that they are taking an interest in an organisation which is for the benefit of humanity."

Mr. CHARLES AMMON,
(*Labour Party Whip 1923*)

course of training, and the nursing vocation has acquired a definite professional status. Hospital nurses to-day are the indispensable helpers of doctors and surgeons in their work. Thousands of refined and educated women are devoting their lives to the care and treatment of the sick.

WHAT IT COSTS.

But this all means greatly increased cost. The more successful and enterprising a Voluntary Hospital is in its pioneer work, the more money is needed for new apparatus. The installation and upkeep of an X-ray apparatus, for instance, involves heavy expense. The equipment of a hospital is a very different proposition in the 20th century from what it was fifty years ago. And this is not all. When a patient has undergone an operation he must be put to bed and nursed back to health. In order that he or she may be properly cared for, the whole organisation of the hospital must be kept in a state of efficiency—administrative, clinical, technical and domestic staff, porters, etc., etc., as well as doctors and nurses.

KEEPING THE HOSPITALS GOING.

How, then, are we to meet the increased cost of living of the hospitals themselves? It can easily be done if we all realise that the hospitals are doing a necessary service to the whole community and that everyone should do his or her share towards providing the money to pay for it. Their work in treating the sick poor gives them in itself a claim on all of us. But it should also be remembered that, whenever we call in the family doctor or consult a specialist we are using the hospitals indirectly and we cannot divest ourselves of responsibility.

It cannot be said nowadays that the patients themselves are not contributing their fair share, either direct or through contributory schemes.

The Hospital Saving Association, which is the largest of these, and is available for all whose incomes are below an agreed limit, is growing rapidly and has over a million members. Its members undertake to make a regular weekly contribution, which frees them from any payment at hospitals if illness necessitates their admission. Other patients, too, are contributing a large sum towards their cost.

The spirit which exists in the voluntary hospital cannot easily be expressed in words. It is the result of the freedom and elasticity which go with voluntary management and voluntary finance, and which is particularly valuable in medical work. It is therefore most important in the interests of the whole of the hospital and medical services of the country that the voluntary element in the hospital service should be maintained.

WHAT YOU CAN DO.

It may be that you are already doing all you can to help. If, on the other hand, you feel that the circumstances call for a greater sacrifice, you can either choose whatever hospital or hospitals may have a special claim on your sympathy and support, or you can subscribe to King Edward's Hospital Fund, which has special facilities for ascertaining the relative needs of the various hospitals in and around London, and makes grants annually to more than 200 hospitals and convalescent homes.

"If you realise what the looker-on sees of the voluntary work given in support of our great hospitals, you will know that it is not only easing the pain and suffering of the individual, it is helping to purify the nation, it is helping to build a foundation for the future greatness and effectiveness of our nation."

Mr. JOHN BROMLEY
(Member of General Council of Trade Union Congress)

Some Facts about the Hospitals on the Books of the King's Fund.

Number of Hospitals	145
Total number of occupied beds in 1932	14,339
Number of in-patients treated in 1932	260,747
Number of new out-patients treated in 1932 ...	1,790,115
Expenditure in 1932	£3,725,301

Increase in Cost.

Average cost for one patient in 1913 was about £2 per week, or £100 per year.

Average cost for one patient in 1932 was about £3-6-0 per week, or £173 per year.

How this Cost is Met.

	£
Paid by patients	1,138,700
,, by public authorities	324,800
,, by interest, dividends, &c.	664,300
	2,127,800
Balance, dependent on Voluntary Gifts ...	1,597,500
	£3,725,300

Amount distributed by King Edward's Hospital Fund for London in 1933 :—

Ordinary Distribution :—		
Maintenance	£263,830	
Extensions and Improvements	33,170	
Convalescent Homes ...	3,000	
Special grants towards Scheme of Pensions for Nurses and Hospital Officers	20,000	
		£320,000

"The Hospitals have set out to maintain their income by finding new supporters in the place of those who are unfortunately no longer able to subscribe as they could before. And they have more and more developed the soundest of all methods of attracting and retaining voluntary contributions. This consists in keeping before the public the value of their work in the relief of suffering and the war against disease, and the fact that, in doing this work, they are performing a regular public service which requires in return a regular income from the members of the community."

H.R.H. THE PRINCE OF WALES,
President of the King's Fund,
at the Council Meeting, May, 1933.

King Edward's Hospital Fund for London

10, OLD JEWRY, E.C.2

Patron:
HIS MAJESTY THE KING.

President:
HIS ROYAL HIGHNESS THE PRINCE OF WALES.

CHAIRMEN OF COMMITTEES:

Management: EARL OF DONOUGHMORE.
Finance: MR. E. R. PEACOCK.
Distribution: SIR COOPER PERRY.
Revenue: LORD LUKE.
Hospital Economy: SIR LEONARD COHEN.

TREASURER: MR. E. R. PEACOCK.

HONORARY SECRETARIES:

LORD SOMERLEYTON.
SIR LEONARD COHEN.
LORD LUKE.
SIR HAROLD WERNHER.

The following Pamphlets may be had free on application to the Fund:

KING EDWARD'S HOSPITAL FUND FOR LONDON: Its Foundation, Growth, and Present Activities.

THE HOSPITALS IN THE LAST FIVE YEARS: Brief Review of Work and Finance in 1928-32 with a List of Hospitals on the books of the Fund.