5. *Beware of new fancy materials and flat roofs.*—After bitter experience, we have forbidden flat roofs in our new town. Even the best flat roofs expand and contract, so producing leaks at the points where they join the walls. Most architects want to use the latest building novelties, which have not stood the test of time. Refuse firmly to be their experimental animals. Brick and stone are still the two best building materials. What was good enough for Wren is good enough for you.

6. *Pick your tender list of contractors very carefully.*—Better still, negotiate a contract with a good firm of builders. Establish good relations with your site agent and foreman, but never issue an instruction direct to them. This is an "extra" for which you will be charged through the nose. Most builders are honest, good craftsmen who want to give you a good job. If architect and builder disagree on a practical point, the builder will often be right.

7. If the site permits, have a tightly designed single-story building, or at the most two stories (Fig. 9). If possible avoid monumental slabs or towers. They enforce rigidity on the unknown needs of the future. On limited town sites tall buildings may be inevitable. See where they cast their shade. Low buildings adjacent may never see the sun. For hostels or staff flats, how-

ever, tall buildings have much to commend them. Good quadrangular building is, in my view, the ideal form, giving compactness, beauty, and flexibility on a human scale. Think of Oxford and Cambridge Colleges and do likewise if you can.

8. Put the patient in the centre of the picture first, last, and all the time.

9. Get from the Ministry of Health an overall sum within which you must work. Provided you keep within this sum, and your own master-plan, press forward regardless of man-made obstructions. You may get the sack—or a knighthood. Neither matters, for you will have served the community and the patients properly. That is the object of the exercise.

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BRITISH HOSPITALS AS THEY WERE BEFORE 1948

BY

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Though it is only twelve years since the National Health Service was introduced there are many now working in, or associated with, the hospital section of the Service who have little or no personal knowledge of the British hospitals as they were before July, 1948, when they were taken over by the State.

There have been places for the care of the sick from the dawn of civilization, and throughout the ages many men and women with an urge to help suffering mankind have been drawn to serve in them. It was an urge similar to that which drew them into religious communities.

Bishop Basil founded a hospital at Caesarea in A.D. 370 and Archbishop Chrysostom one at Constantinople in A.D. 400. In Britain the first general hospital of which there is record, St. Peter's, York, was founded by the Saxon King Athelstan and the Cathedral Canons; St. John's, York, was started by Lanfranc, Archbishop of Canterbury, in 1084. The oldest British hospital still functioning is St. Bartholomew's, Rochester, which began in 1078 as a leper hospital. It was soon followed by St. Bartholomew's, London, founded in 1123 by Rahere, the monk. After the dissolution of the monasteries, Bart's, along with the other four "Royal Hospitals," was put by King Henry VIII under the care of the City Corporation.

Care of the Sick Under the Poor Law

Soon after this the great Poor Law Statute of Queen Elizabeth I was passed, and the State took over from the Church responsibility for the destitute, including the poor who were ill. The Poor Law was reformed in 1834; "Guardians" replaced the "Overseers" of the poor; larger administrative units were formed by the union of parishes; "sick wards" were established in the

"workhouses"; and from about 1867 "separate" infirmaries or Poor Law hospitals were established, particularly in London and the large towns. Liverpool started a training-school for nurses in 1865 at the Brownlow Hill Infirmary of the Select Vestry.

In 1867 the Metropolitan Poor Act was passed and the Metropolitan Asylums Board was formed to take certain classes of the sick-poor out of the workhouses. The Board's service was the first organized hospital system of this country. It provided and administered hospitals for those suffering from fevers, for the mentally defective, for children needing long-stay hospital care, and for the tuberculous.

The Local Government Act, 1929, abolished the Boards of Guardians and the Metropolitan Asylums Board and transferred their functions to the councils of counties and county boroughs. The final break-up of the Poor Law had to wait until 1948.

Voluntary Hospitals

Throughout this period prejudice against the way in which the Poor Law Acts were administered was growing, and voluntary hospitals were established in considerable numbers, particularly during the eighteenth century and the first half of the nineteenth. The springs of benevolence flowed freely to mitigate the hardships of the poor. Most of the hospitals established about this time were general hospitals, but the Society of Friends built a mental hospital in York at the close of the eighteenth century, and the London Fever Hospital was founded in 1802.

Local Authority Hospitals

From about 1866 yet another type of hospital had been developing—namely, that organized by the local councils. It started with isolation or fever hospitals,

but the one at Barry, in South Wales, provided a small general hospital. Then the larger authorities built sanatoria, some provided maternity homes or hospitals, and others provided orthopaedic hospitals for children. Just before 1929 the Bradford Corporation took over from the Board of Guardians, St. Luke's, a large general hospital, and administered it as a part of their health department. Apart from this, the local authorities or joint boards had for many years provided mental hospitals and institutions for the mentally defective.

In 1929 there were therefore three types of hospital: voluntary, Poor Law, and local authority. The 1929 Act brought the latter two under the same administration except for the fever hospitals of the smaller sanitary authorities. The voluntary hospitals were left undisturbed; they had to continue to find their own finances, which they tried to do by setting up contributory schemes whereby for small weekly payments their members escaped paying a charge when admitted to hospital; later, in London and other places this benefit was extended to the municipal hospitals.

The 1929 Act

There is no doubt that the 1929 Act was a great step forward but, following common Parliamentary practice, though it gave abundant powers to the authorities which elected to use them it did not *require* an apathetic authority to do anything more than administer the Poor Laws. For example, an authority could make a declaration that it proposed to "appropriate" the Poor Law hospitals and administer them under the Public Health Acts. On the other hand, if an authority made no such declaration the hospitals continued as Poor Law hospitals, admission to which was normally through the relieving officer and was limited to the sick poor—though emergency patients could always be admitted by the medical superintendent. But if the local authority appropriated them, the hospitals were open to receive any sick inhabitant of the district, though, incidentally, he was assessed to pay according to his means, with the proviso that he was not charged more than the average cost of treatment in that hospital. The Act also removed the transferred Poor Law hospitals which had been "appropriated" from the detailed oversight of the Ministry of Health.

The result was as might be expected. The larger and more enlightened authorities—often but not necessarily synonymous—quickly "appropriated" their transferred hospitals, lavished attention and money on them, and were proceeding to build up a first-class hospital service. In the many places, however, where zeal was lacking or where those wedded to the old Poor Law traditions were influential in local circles, the change from the Guardians to the town or county councillors made little alteration. In such areas the voluntary hospitals alone were available for those who did not wish to be admitted to a Poor Law hospital.

A provision of the Act which is worthy of mention is that the voluntary hospitals of a district had to be consulted if a local authority proposed to provide new or enlarged hospital accommodation. This brought into being committees representative of the voluntary hospitals, and provided a forum where all hospital problems could be discussed. The committees so formed in London, Liverpool, and Manchester did work of great value.

Pre-war Years

The years between 1930, when the hospitals were actually transferred, and 1938, when the shadow of another world war began to be felt and all capital expenditure not needed for the war effort had to be curtailed, do not form a long period in hospital history, and it is indeed remarkable how much was achieved in some areas in this short time.

Perhaps I may be permitted to point to the striking example of the London County Council under the able and energetic guidance of Sir Frederick Menzies, though this Council was by no means unique in the progress made. The London County Council was responsible for the administration of 98 hospitals of all types, including the mental hospitals, containing 72,000 beds. Many were already obsolete in 1930, and, though much was done by reconditioning (Figs. 1 and 2), some were

FIG. 1.—A very old ward at Lambeth Hospital before reconditioning.

FIG. 2.—The same ward at Lambeth Hospital after reconditioning.

beyond improvement, and the only real solution was to demolish and rebuild. Heavy capital expenditure was incurred; much more was spent proportionately, when increased building costs are taken into account, than during the decade after 1948 (Fig. 3). The ratio of nurses to

patients was substantially raised: The patient-nurse ratio varied greatly in the hospitals which were taken over. In the acute general hospitals it was, on the average, about one nurse to five patients. Their range of salaries also varied, and some ward sisters received as little as £40 a year together with board and lodging. The London County Council built nurses' homes, reduced the hours of work, raised and standardized their salaries, and gradually increased the numbers employed. In 1935 alone the number of ward sisters was increased by 100 and of staff nurses and students by 500 in 12 of the 27 acute general hospitals where the establishment of staff was reviewed at that time. In many hospitals the number of nurses was doubled between 1930 and 1938.

FIG. 3.—North-eastern Fever Hospital (now St. Ann's General Hospital, Tottenham)—a view of a new ward built in 1935.

FIG. 4.—Roof-garden at the Maudsley Hospital.

Outside consultants, often from teaching hospitals, were brought in and were paid for their services—a payment which the voluntary hospitals did not make. Special units were provided and research was encouraged. New operating theatres and pathological laboratories were built and staffed. Out-patient departments were opened, and in some, but by no means all, the general level of medical, surgical, and obstetrical work was first-class.

In the meantime, the voluntary hospitals were also developing to meet expanding medical needs. There were occasional princely donations and legacies, but the distribution of the money available was uneven: the large and well-known teaching hospitals attracted more money than the voluntary non-teaching and cottage hospitals. During this period the King Edward Hospital Fund and the Nuffield Provincial Hospitals Trust came to the rescue of many voluntary hospitals in need of money for capital purposes, and, as mentioned earlier, the contributory schemes helped with routine maintenance costs.

The voluntary hospitals had almost a monopoly of medical teaching, though both in the provinces and in London local authority hospitals were used for teaching on fevers and often on mental diseases. In London most of the 12 undergraduate medical schools were linked with municipal hospitals for some of their teaching, and the County Council itself provided university teaching in mental diseases at its Maudsley Hospital (Fig. 4) and developed its Hammersmith Hospital for the use of the then British Postgraduate Medical School, which is now renamed the Postgraduate Medical School of London.

Effects of War

This, then, was the position just before the outbreak of war. It was realized that bomb casualties would be so

numerous that *all* suitable hospitals must be available to receive them, and that many of the best hospitals were in such vulnerable locations that they could only provide a limited number of beds for emergency treatment. Hospital regions were devised by the Government; and in each a hospital officer was appointed, to be responsible for the distribution of casualties. London and the Home Counties were divided into 12 sectors radiating out from the centre; each sector headquarters had a hospital officer, always from a teaching hospital, and another from the municipal side, together with sector matrons and lay administrative officers.

Hospitals in the vulnerable areas were paid by the Government to keep many of their beds empty but ready to receive casualties when necessary. Additional beds were needed to replace those in the central hospitals which had either been closed or were being kept empty awaiting casualties. Many hospitals outside the most dangerous areas were "up-graded" by the provision, at Government expense, of operating-theatres; and x-ray and pathological departments were transferred in. After the outbreak of war a substantial number of emergency hospital annexes were built in the grounds of hospitals, such as sanatoria and mental hospitals, away from the most dangerous areas. Medical and nursing staff were moved from the central hospitals with closed beds to the periphery. Many patients were sent home at the outbreak of war, and, as they included some with infectious tuberculosis, this was alleged to be, and probably was, a factor in the subsequent increase in the incidence of this disease. The male comparative mortality figure for respiratory tuberculosis in 1941 was 1.36 and was the highest since 1932; it has never been exceeded since.

The staffs of voluntary and municipal hospitals were merged, and found themselves working together in the peripheral hospitals. Most of the senior medical staff of teaching hospitals found themselves with their private practices gone, and they were attached at small salaries to up-graded hospitals many miles from their homes. But, after a few months of the "phony" war, private practice began to reappear; many people who had left the cities at the outbreak of war returned and had to be provided with hospital care. To meet this need most local authorities opened up some of their closed beds, as the demands from the civilian sick were growing and the scheme for sending in-patients "down the line" became choked. When serious bombing began in September, 1940, the difficulties were accentuated, and from then until the end of the war there was a constant backward and forward movement of the civilian population between their home towns and the rural areas, depending on the intensity of the bombing. Every L.C.C. hospital within the county and many voluntary and out-County-L.C.C. and other municipal hospitals were hit at some time during the war, and, as some were so badly damaged that they had to be closed for short or long periods, this added to the general shortage of beds (Figs. 5 and 6). Official national policy had been to leave the chronic sick in the hospitals to which they were accustomed and not to send them to peripheral hospitals, and it was

not until the middle of 1944, when "buzz bombs" became active, that it was decided to move these patients, including the tuberculous, and numbering

FIG. 5.—The Park Hospital—the result of a bomb.

FIG. 6.—War damage at Lewisham Hospital.

in all over 6,000, from the London area to safer hospitals in other parts of the country. This move was effected in 14 days. It illustrated the good will which had developed among the staffs of all hospitals, but it had an effect on the staffing of hospitals immediately after the war, because their nursing and other staff went with them, and many, having settled down comfortably elsewhere, never returned to their London hospitals.

These wartime arrangements were necessary to cope with a national crisis when the country needed every hospital bed it could get. The scheme proved itself during the war, and those who, towards its end, had begun to think about a universal national hospital service naturally used their war experience in designing the new scheme. The main points which emerged were that a hospital service must be planned on a regional basis and that all hospitals must be linked in some way with the founts of medical progress, the medical schools.

This was the position in 1944, when the Ministry of Health and the Department of Health for Scotland produced their famous White Paper. At the outbreak of war all vested interests had had to be discarded, and every hospital was, in effect, told what it had to do, though the day-to-day control was left with those who had provided the hospital. Towards the end of the war many voluntary hospitals were able to remain open only because the Ministry of Health paid their deficits. Large expenditures were needed to repair war damage and to overtake arrears of maintenance which had accumulated during the war.

The 1946 Act

There was much discussion between the Ministry of Health, the British Hospitals' Association, and the local authorities while the 1946 Act was being drafted. Agreement was almost reached on the future structure while Mr. (now Sir Harry) Willink was Minister of Health. The basis was that hospitals would remain under their then management but would receive heavy Government subsidies, which would be allocated to individual hospitals by regional committees containing representatives of both voluntary and municipal hospitals. After the General Election of 1945, Mr. Willink was replaced by Mr. Bevan, and the decision was taken to nationalize all the hospitals, as was done in the 1946 Act. As soon as this decision became known there was clearly no incentive for either voluntary or municipal hospitals to embark on large-scale modernizations, and, even if they had so wished, national restrictions on the use of building materials and labour, needed in priority for house and factories for the export trade, precluded them. The Ministry therefore came into possession in 1948 of a large number of hospitals, many of which were worn out but which would have been even worse but for the Trojan work of some local authorities who, between 1930 and 1938, lavished large sums of money on trying to improve their own, to some extent squalid, inheritance from the Poor Law authorities.

Bed Strength

The number of beds in England and Wales in 1944 in some 900 voluntary hospitals was about 77,000, but, though they included 25 large teaching hospitals, there were over 250 hospitals, mainly cottage hospitals, with fewer than 30 beds each. On the other hand, the municipal hospitals contained over 370,000 beds: they included 70,000 in 140 "appropriated" general hospitals

and another 60,000 in 400 hospitals and institutions still administered under the Poor Law Acts. The White Paper says of them: "This great pool of 130,000 beds represents a varied service at every stage of development from the sick wards of an institution for the aged or chronic sick to the most modern and up-to-date of hospitals with every kind of special department and equipment and highly skilled staff." There were also 38,000 beds in 810 isolation hospitals, 28,000 in sanatoria, mostly municipal, and about 175,000 in hospitals for the mentally sick or defective.

It will be seen from the above that on the "Appointed Day" in July, 1948, when hospitals were nationalized, the voluntary hospitals were numerous but most of them were small. They contributed about 77,000 beds compared with over 370,000 in the municipal hospitals taken over by the State. The voluntary hospitals did not pay their senior medical staff, but they got the best, as it was regarded as a professional distinction to obtain a post as an "Honorary." The voluntary hospitals could choose which patients they would admit, and concentrated on acute work. There were often squabbles between them and the municipal hospitals—which had statutory obligations to admit the sick poor—when a voluntary hospital asked a municipal one to take over a patient of whom the voluntary hospital wished to be rid. The fever hospitals, except in the large towns, were generally small, and, with the reduction in the incidence of the acute infectious diseases, were finding it difficult to justify their existence, except by amalgamating with their neighbours or admitting patients with types of illness other than those for which they were originally built.

The mental hospitals and the institutions for the mentally defective had always been outside the stream of the general hospital world, and, except in Glasgow, Surrey, and London, they had been in a separate department from that responsible for the other local authority hospitals. It is all to the good that they are now an integral part of the national hospital scheme, though their traditions, size, and geographical isolation make real assimilation difficult.

Independent Hospitals

I have dealt with the hospitals incorporated in 1948 in the National Health Service. There are, however, some hospitals which declined to enter the new scheme and remained "independent." They include hospitals established by religious bodies; an orthopaedic hospital originally built by the Trade Unions; The Royal Masonic Hospital; St. Andrew's Hospital, Dollis Hill; the French and the Italian Hospitals; a number of convalescent homes and mental hospitals, and a few private hospitals and nursing-homes run as commercial enterprises. Few would wish to force them into the State service, and most will hope that they may long continue. As in the case of private, curiously called public, boarding schools, their future will depend on their charges and on the value which the public puts upon their services.

Before and After

It only remains to point out the main differences between the pre-1948 hospitals and those of to-day. The medical and nursing staffing has been greatly strengthened. All medical staff are now paid for their services. The pay is fixed on a uniform national basis: before 1948, hospitals in unattractive districts could, and

did, pay their junior medical staff more than did those which were more attractive from a professional or geographical point of view.

There was little out-patient work in the former municipal hospitals. Hospital building has been sadly neglected, though in recent years the Government has placed considerably more money for capital development at the disposal of its agents, the various hospital boards. Out-patient work is increasing everywhere. The type of administration has tended to follow that of the former voluntary hospitals—that is, overall administrative control is passing from medical into lay hands. Before 1948 each municipal hospital had a prescribed district and a statutory duty to admit patients from their district in need of in-patient treatment: this at times caused difficulty, as patients from just outside their districts could be, and sometimes were, refused. Now hospitals can take patients from anywhere in the country; this has sometimes led to local patients having to be told that there is no room for them, particularly if the patient is elderly and likely to occupy a bed for a long time. The previous friendly rivalry between the voluntary and municipal hospitals has been replaced by grumbling from the regional board hospitals that the teaching hospitals get too large a slice of the cake.

The benefits which have resulted are that the former voluntary hospitals are no longer in the desperate need for money that some of them were, and there is no need for street collections and similar means of raising money. There is a better spread of consultants and a reduction of the pressure on central teaching hospitals for specialist advice. Mental hospitals are being brought into closer contact with other hospitals. The level of medical treatment and nursing care is being gradually raised. On the other hand, that close camaraderie between the staffs of hospitals which existed in the London County Council Hospital Service, and no doubt in others, and which was fostered by frequent and regular meetings at County Hall of medical superintendents and specialist groups and by clinical meetings at different hospitals in turn by the London County Medical Society, appears to be declining, and we have a number of individual hospitals without any special feeling of loyalty to their regional boards, and without any firm conviction that they are part of a service, and that there must be real co-operation with their neighbours.

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OBSERVATIONS ON HOSPITAL PLANNING

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In an earlier report (Abel and Lewin, 1959¹) a substantial increase in capital expenditure on hospital building was advocated, and it seems clear that there is now a general acceptance of the idea of more capital investment in hospitals, although views differ widely on the size of this investment. The Annual Report of the Ministry of Health for 1959² refers to the passing decade of "make do and mend" and to the future programme of "expansion." For 1961–2 £31m. are promised, but even the Guillebaud Report³ suggested £30m. a year to be the minimum required for replacement costs of hospitals, and that in terms of 1955 money value. Before the war £10m. a year were being spent on new hospitals and major extensions, which compares in value to the £31m. proposed for next year.

At the present rate of progress—and we have no particular reason to suppose that this will be maintained beyond the Government promise to reach a figure of £50m. by 1964–5—it will be 1968–9 before the target of £75m. suggested in the earlier paper is reached, and the National Health Service will have come of age. We still think this figure of £75m. a year a realistic one. To put the expenditure of a sum of £75m. a year on the hospital service into perspective we set out some of the main figures of capital expenditure in the public sector this year: Electricity Council, £285m.; Housing, £285m.; British Transport Commission, £200m. National Coal Board, £120m.; Education, £108m.; Roads, £92m.; Atomic Energy Authority, £42m.; Gas Council, £43m.; Air Corporations, £59m.; Post Office, £91m.; Water, £33m.; Sewerage, £42m.; and

Hospitals, £31m. It is clear that the hospital programme so far envisaged does not represent an expansion commensurate with the need.

So far the needs of hospitals have not come within the real range of public consciousness. Hospitals continue to receive letters of thanks for services rendered, but rarely one of bitter complaint at the quality of buildings in which patients are treated. The general public on the whole are unaware that most of their hospitals were built more than 70 years ago, that over one in five was built 100 years ago, and that although there are enough hospitals they are too old and often in the wrong places. The patients are satisfied if they continue to enjoy what has been described as "the best medicine in the world," but few of them appreciate the poor conditions of work under which the medical and nursing staff achieve this quality of care. Our concern is that we may be reaching a stage when the standard of service cannot be maintained with our present hospital buildings. Such a situation would immediately rouse the public conscience.

The Volume of Work

Although we realize that the hospital care of the patient is only an episode in his total medical care, and that most of the illness in the country is treated by general practitioners, nevertheless the load upon the hospital service continues to increase, as revealed by the number of new out-patients attending for consultation and by the number of patients discharged from hospital wards. In the Oxford Regional Hospital Board