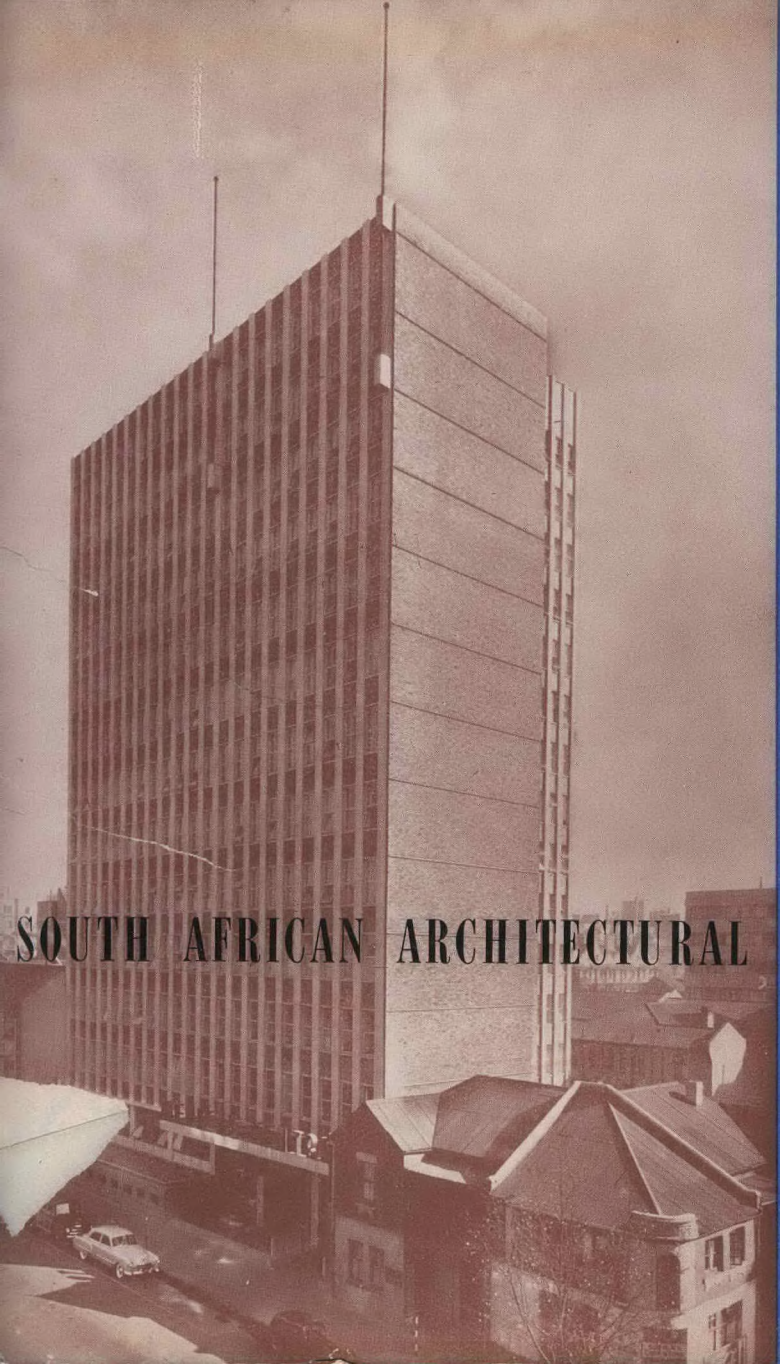

SOUTH AFRICAN ARCHITECTURAL RECORD

MARCH, 1952

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JOURNAL OF THE INSTITUTE OF SOUTH AFRICAN ARCHITECTS; THE CAPE, NATAL, ORANGE FREE STATE AND TRANSVAAL PROVINCIAL INSTITUTES AND THE CHAPTER OF SOUTH AFRICAN QUANTITY SURVEYORS

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EDITORIAL

In this issue we present three buildings which have in common the fact that they were erected after World War II in order to house members of the Medical Profession. Here their similarity ends. We invite you to look in particular at the two buildings completed during the last few years in Johannesburg, buildings which, although of the same class and of similar size, represent two diametrically opposed design solutions.

We are well aware of the differences in site, planning requirements, and orientation which must not be overlooked, but making due allowances for these differences, we feel that a further divergence remains.

It is our present intention to try and define this residual difference and examine its significance. Let it first be understood that we regard these two buildings as representing the very highest order of contemporary architecture in this country or, for that matter, in the world at large, and if we seem to venture criticism we do so with the profoundest respect.

Illustration of the Ingram's building first appeared in a fine water colour rendering at the 1949 Academy Exhibition. The intense drama of its massing and the strong contrasts of its surfaces were already apparent, drama reminiscent of the early work of Dudok. What the architect has done in fact is to deliberately break this building up into separately articulate parts and to reassemble it into an exciting composition of masses. To borrow a term from a recent American writer, Ingram's building is "Centristic" in concept. It is composed about a centre, albeit not a symmetrical centre, but there is balance and an interaction of parts.

It might be said that even in its own right the drama has, in this building, gone too far. The strength of sunlight which bathes our buildings needs no assistance in stating the three dimensional facts of a scheme which are here underlined by changes of colour and texture resulting in an over richness. What we are concerned with here, however, is the interaction between a building such as this and its environment. We are moving towards an era of total and continuous environment. Sooner or later must emerge a scheme of things in which an identical adjacent stands will rise buildings for identical function, of identical structure and materials selected against precise standards. We shall then have not a number of separate buildings, but a precinct which is one continuous building.

In such an environment where visual experience is a continuous rather than a static thing, where only a part of a building can be seen at any instant, we would have, so to speak, architecture by the yard and the centristic qualities of a building such as that which we have been considering will become redundant.

The first significant example of this "Anti-Centristic" architecture in this country came, strangely enough, from the same hand as the Ingram's building, namely the WISPECO building inset on this page. The principal is however taken further in the design of the Medical Centre in Johannesburg, which is the second building that we wish to discuss here.

The stark reality of this building, only hinted at by the photographs that follow, is a precursor of the sort of monumentality which modern architecture can provide. The power which it exerts over the visually sensitive is almost a metaphysical thing. Architecture in this building is not a matter of the composition of masses, for there is no attempt to divide the bulk and to set up tensions between the resultant componants.

Architectural interest lies in the proportioning and handling of the repeated elements and is a matter of texture in the visual sense. There is no attempt to articulate the single mass by the use of a frame and the surface is an infinitely extensible thing.

Texture alone is not enough. We expect a certain amount of visual interest in our environment and if the modern architect is not prepared to distort the continuity of repetition in his buildings he must get that interest through means outside the building proper. The building then becomes the textured backdrop to some focal object. Here perhaps lies the clue to the reintegration of architecture and the other plastic arts.

It is paradoxical then to find that the Ingram's building carries two pieces of sculpture both of which are theoretically and visually redundant, while the Medical Centre, which cries out for some independant focus, has no more than two flagpoles applied rather meaninglessly far from eyes' reach. The building seemed perhaps too stark and here courage failed, conceding to trite and conventional trappings. How magnificent a backdrop would this building have been to a free-standing, nobly independant work of sculpture.

Buildings of these two types will continue to appear in our midst but time will ultimately point a finger of selection. Nevertheless, the job of postulating a new environment for mankind is long overdue and we must begin to anticipate our choice of alternatives. We might then conclude by quoting Mies van der Rohe: "Greatness is not to express oneself but to do what history demands that it should be done at a given moment."

Photo: N. L. Hansen

MEDICAL CENTRE, JOHANNESBURG

ARCHITECTS: HANSON, TOMKIN & FINKELSTEIN, MM.I.A., AA.R.I.B.A.

MEDICAL CENTRE, JOHANNESBURG, DESCRIBED BY N. L. HANSON

Introduction

The idea of a building to accommodate medical practitioners and dentists was conceived towards the end of World War 2 (November 1944). The intention was essentially to provide for ex-servicemen returning to civilian life to commence or to re-commence medical practice. At that time accommodation of such a nature — indeed of all types — was extremely scarce in Johannesburg, so that an application to the then Building Control, sponsored by ex-servicemen's organizations, was sympathetically considered, although permits of the value required were still rarely granted. Some conditions were imposed — apart from the ex-service qualification for tenants — among them, that no shops were to be constructed in the proposed building. Plans were prepared during 1945, and building operations started at the beginning of 1946. The building was completed and occupied in stages from approximately August 1948 onwards.

The length of time taken for the construction of the building is indicative of the difficulties which then beset the building industry. Shortages of materials and lack of experienced skilled labour retarded progress and made the achievement of a reasonable standard of building a laborious and painful process. The principal shortages were timber of all grades, and finished steel products, normally imported into South Africa. Resources available for immediate use were of orthodox, pre-war character, allowing little experimentation. These factors influenced, and limited the scope of, the design of the building, which, in its nature, called for innovation and a fresh approach.

Programme

Medical suites of varying size and arrangement and for a wide variety of specialist practice constituted the primary requirement. It was not possible to define beforehand precisely what accommodation would be required for each tenant. In fact, in many cases, the future tenants were still on active service out of the Union. At the same time, it was apparent from an examination of rooms then in use for the same purpose that the generally adopted conventional office type of floor plan was unsuitable for a reasonably efficient suite layout.

For both the reasons stated above — unknown individual tenant's requirements and a rejection of the orthodox office plan — a new formula giving flexibility of size and arrangement was sought. Obviously, a similar flexibility was essential for the multifarious services required — the electrical, heating, plumbing and gas installations — and for access to the individual suites when planned. Flexibility, incidentally, was intended to cover changes of tenancy, and, just as important, changes of mind on the part of tenants. As stated previously, shops were, at first, to be excluded from the ground floor, on which further medical suites were to be planned on whatever space was available. Subsequently, after the planning had been completed, a Chemist Shop and a Tea Room were incorporated, and a final change made when the Chemist Shop was moved, eliminating in the process one of the service ramps and bridging over the other. A small shop replaced the Enquiry Office in the Entrance Vestibule. A drive-in for an ambulance was originally envisaged, while a ramp down to the basement was to provide access to the parking garage covering all available space at that level, as well as functioning as service access. A caretaker's flat and native staff accommodation on the roof completed the accommodation programme.

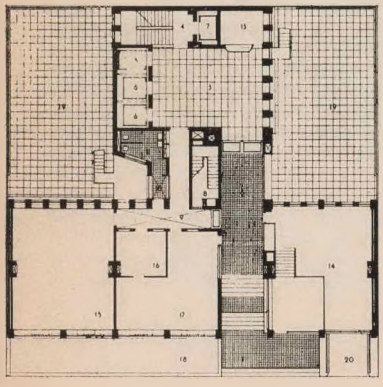
Generally, privacy or the feeling of privacy was to be aimed at for the suites facing a busy street, particularly those on the lower floors. The overall budget for the building, taking into account rentals fixed at the lowest possible levels in agreement with the ex-servicemen's representatives, dictated a strict economy in building expenditure. At the same time, maintenance costs, internally and externally, were to be kept to a minimum.The highest possible percentage of rentable space, compatible with other necessary factors, was to be extracted from the coverage permitted on the site.

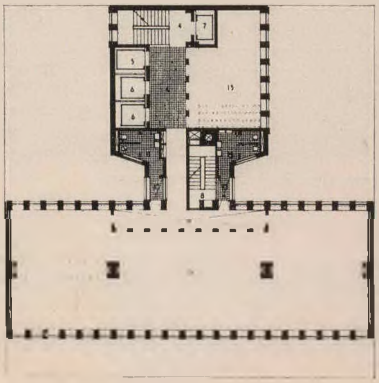
Site Factors

The site, an internal one facing south onto a fairly broad busy street, measures 100 x 100 Cape feet. Coverage limitations together with a restriction in the number of floors permitted, are imposed by the Local Authority. The bulk which emerges from multiplying one by the other, however, may be utilized by increasing the number of floors and reducing the floor coverage, provided a building line, dependant on the width of the street, is adhered to. If greater height is aimed at, set-backs of one kind or another are inevitable.

In the case of Medical Centre, the customary juggling took place to arrive at the happiest compromise between coverage and height. In fact it was necessary to bring the preliminary planning of the building to an advanced stage before a decision could be made. Three factors were kept in mind. Firstly, a set-back was most needed on the lower floors of the building; secondly, the suites constituting the bulk of the

An unexpected and unusual view of the building was presented when the building occupying the site in the foreground was recently demolished. From this view point one can more readily appreciate the mass and proportion as well as the rippling texture of the facade and one is not so directly impressed with the dramatic soaring scale of the more usual close up view.





LEGEND

GROUND AND BASIC FLOOR PLANS

1. Main Entrance.
2. Entrance Lobby.
3. Entrance Vestibule.
4. Main Stair and Lift Lobby.
5. Stretcher Lift.
6. Passenger Lifts.
7. Service Lift.
8. Service Stair.
9. Corridor.
10. Lobby to Cloaks.
11. Women's Lavatory.
12. Men's Lavatory.
13. Shop.
14. Chemist Shop.
15. Area for Doctor's Suites.
16. Kitchen.
17. Tea Room.
18. Roof Terrace.
19. Courtyard.
20. Parking and Service Ramp.

building should receive functional expression on one plane on the facade; and, thirdly, a greater floor to ceiling height than usual would be needed to provide a sufficient depth of floor for horizontal service runs, sound-proofing, etc. In the event, two set-backs were decided upon. One, the major one, above the semi-basement, the other on the roof above the South suite block, for the caretaker's flat. The first, a set-back of 11'-0", enables the complete frontage of suites to be expressed on one surface, and gives the required privacy to the lower floors. On this plane, then, there are the ground floor and twelve upper floors of suites. The caretaker's flat — set back a further 10' 0" — reads hardly at all from the street. An additional floor on the rear North wing of the building accommodates the Lift Motor Room and the storage tanks, giving a maximum height of approximately 176'-0" from pavement level. The general floor to floor height is 11'-5", of which 1'-1½" is taken up with floor construction, floor coverings and ceilings.

Planning

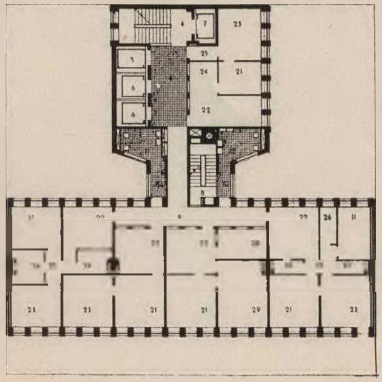
The general factors influencing and governing the planning of the building have been largely covered in the previous sections. Briefly, these are maximum rentable space, flexibility of layout and services, restricted range of available materials (particularly timber), a set-back on the street frontage giving 12 floors of the same area and shape, and a comparatively lofty floor to floor height. To those, the architects added some self-imposed conditions (apart from the purely architectural responsibility, touched upon later). The planning of the building must allow the complete concealment, internally and externally, of all service pipes, while retaining easy accessibility to them; spaciousness in public approaches and waiting spaces, to be achieved by reducing circulation lengths; and a uniform and consistent system of door and window openings to give satisfying results under all anticipated conditions. The structural system, of course, is fundamental to any planning solution, but is separated here for easier description.

It is immediately apparent that the flexibility factor could be dealt with most satisfactorily by the adoption of a modular system. This was arrived at by dividing the available length of the street — the main — facade into suitable room widths (structurally and functionally) — approximately 14'-0" — and sub-dividing this width into 3 window units giving a basic window and door module of 3'-3" and a column and pier width of 1'-6". The plan is built up on this basis.

The bulk of the suites falls naturally within the main street-facing wing of the building, to which the greatest effective depth is given. This wing, under normal demands, divides easily into three suites, the two end ones (2 bays, i.e. 6 windows to each) having direct lighting and ventilation on the two opposite external walls, the one facing the street, the other the internal courts. Each of the latter was made as long and as wide as possible (54'-6" long and 30'-0" wide). The centre suite thus has the remaining 3 bays (i.e. 9 windows) facing the street. A dropped slab over the approach corridor allowed the rear portion of this suite to be ventilated by clerestory method, the lighting being supplemented by borrowed light onto the approach corridor. The latter is ceiled with a shallow barrel vault. As a rule, the portion of the suite adjoining the corridor is used for waiting rooms, darkrooms, and administrative purposes. The men's and women's cloakrooms, as well

TYPICAL FLOOR (SHOWING VARIATION IN DESIGN OF SUITES)

4. Main Stair and Lift Lobby.
5. Stretcher Lift.
6. Passenger Lifts.
7. Service Lift.
8. Service Stair.
9. Corridor.
10. Lobby to Cloaks.
11. Women's Lavatory.
12. Men's Lavatory.
21. Consulting Rooms.
22. Waiting Rooms.
23. Examination Rooms.
24. Nurse.
25. Lobby.
26. Laboratory.
27. Dark Room.
28. Office.
29. Playroom.
30. Records.
31. Screening.
32. Accounts.
33. Treatment.
34. X-ray.



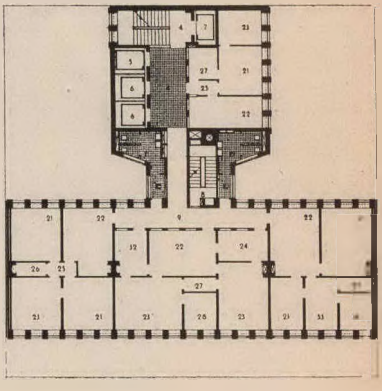


Photo: Alan Yates (Courtesy Fredk. Sage (S.A.) Co. Pty. Ltd.)

as the centrally placed service stairs, are reached from the corridor in this section.

The lifts, four in number (with the service lift kept apart) together with the main staircase, are located in the rear or North wing. The remaining available floor space is allocated to an East facing suite, designed to accommodate practitioners requiring limited facilities. These suites being approached directly from the Lift Lobbies, reduce circulation space. The module decided upon for the front wing has been retained in the North wing, thus simplifying the manufacture and installation of the building components, as well as imparting an overall unity to the interior and the facades.

The suites themselves, while falling roughly into the subdivision indicated above, in fact vary considerably in size and function. The simplest unit, consisting of a waiting room and a consulting room, occupies one bay; the most complex occupies a complete floor. Some conception of the range of functions may be gathered from a study of typical floor layouts. Almost all divisions of medicine with widely differing requirements are represented in the building, which houses, all in all, over 100 medical practitioners. The room units range from one to four bays (usually 3 bays) in width, giving dimensions of 4'-7½", 9'-0", 13'-9" and 18'-6", the depth as a rule being either 14'-6" or 18'-6". Apart from the consistent fenestration devised for the varying room widths, the ceiling and floor coverings are designed to give completed patterns in each unit. The structural system is naturally an integral part of the floor plan, making possible the sub-divisions and the large number of permutations and combinations demanded by the programme.

The ground floor, elevated 5'-0" above the pavement and set back 11'-0" from the building line, originally included only a limited amount of rentable space. Subsequent changes have been touched upon earlier. In the building as designed an ambulance ramp up to the East Court, and a service ramp to the semi-basement imparted an open character to the entrance, with emphasis on the column system and on the lofty cantilever slab, advantage being taken of the height gained by raising the ground floor level. A broad approach leads to an Entrance Vestibule, of generous dimensions (32'-0" x 22'-6") and opening (until recently) onto the East Court.

The roof accommodates the caretaker's flat above the South wing, and the native servants' quarters above the North wing — separated but in close juxtaposition for the required supervision. A roof terrace occupies the remaining portion of

"The external treatment of the ground floor, while in harmony with the treatment of the general facade links up with that of the open approach to the Entrance Vestibule and the vestibule itself. The front wall of the semi-basement, built on the building line, leads to and emphasizes the steps up to the ground floor. It is faced with granite-coloured terrazzo, its windows being screened with cast bronze grilles. At the higher level the columns are faced with Italian marble, the windows are treated as panels and are made up in a combination of glass brick and bronze-faced window units. The wall facings of the Entrance Lobby take up the material of the Vestibule, as well as those of the facade proper — a buff-coloured terrazzo, glass bricks and Italian marble and bronze shopfronts, direction boards and lettering."

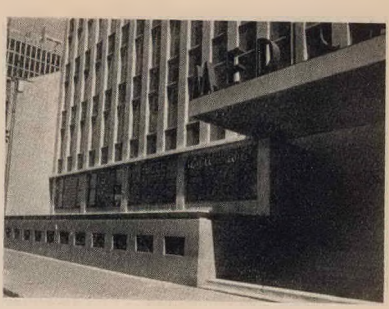
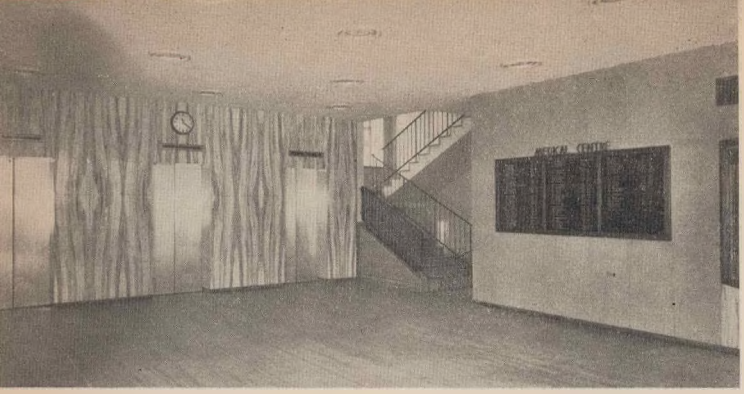


Photo: N. L. Hanson

Photo: Alan Yates (Courtesy Fredk. Sage (S.A.) Co. Pty. Ltd.)



The Main Entrance Vestibule looking towards the main stairs and lifts. The ceiling is finished in a rough surfaced plaster, the walls and floor are marble. The view below, looking towards the East courtyard, shows the service lift and the small shop. The fittings are in bronze.

Photo: B.R.S.

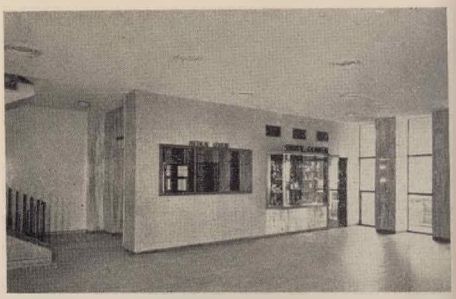
the North wing. The semi-basement houses the Boiler Room, the Transformer Rooms, Store Rooms and Native lavatories. Parking for a large number of doctors' cars occupies the remainder of the semi-basement area, which covers the entire site.

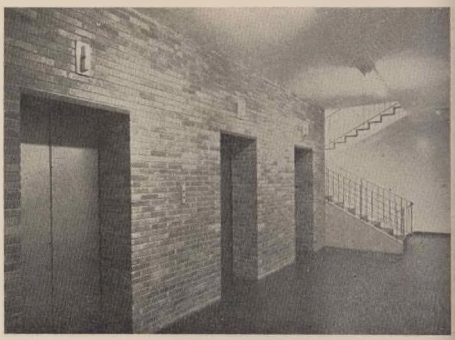
Structure and Materials

Although orthodox methods of construction only were available to the architects, an attempt was made to organize and exploit the time-worn reinforced-concrete frame system to a higher point of efficiency and utility. Owing to the shortage of timber, the use of conventional shuttering and variation in column and beam sizes were reduced to a minimum. Steel shuttering was fabricated for the columns, the dimensions of which were kept constant from the ground to the twelfth floors. The floor slabs consist of a regular series of shallow and narrow beams spanning between the main structural members.

Stock steel forms requiring little timber support were used in the construction. The covering slab is 2" thick, the total beam depth 10". By this method, the position of walls could be determined or changed after the structure was completed; further, ducts were created at frequent intervals feeding the main horizontal ducts, which, in turn, run through the entire length of all suites. Considerable flexibility in the placing of equipment thus became possible.

The reinforced concrete frame on the external walls is spaced in accordance with the modular system as previously outlined. Internally, the broad division of the floor area into suites is reflected in the positioning of the main columns. In the South wing, two internal columns only are required. These columns are designed and shaped to provide vertical ducts, and, at the same time, to carry the main horizontal duct, the latter built in clear spans of 26'-0", 40'-0" and 26'-0". The duct size internally is approximately 2'-6" square. A similar duct caters





The main stair and lift lobby on the upper floors. Utilitarian materials are used: 2" iron-spot light yellow bricks, chocolate brown asphalte tiles and plastered ceiling.

for the North wing. Additional vertical ducts are suitably disposed to house the various service pipes. Outside of the suites, a system using walls as structure has been adopted generally. These reinforced concrete walls are 9" thick, and, in fact, support the tallest portion of the building. The dropped slabs over the corridor in the South wing and over the lobbies to the Cloak Rooms, are suspended from the main floor slabs above them. Other than on the street facade, concrete toes have been projected from the beams at floor levels to support the facebrick panels, which clothe all exposed faces of the building.

The choice of materials — limited though it was — inevitable raised problems of architectural theory. The character of the building and the architectural discipline governing its design both take shape in part from the materials used. It was decided to make use, as far as possible, of traditional clay products, as being the most readily available, durable, comparatively economical (at that time) and having roots in the country's own natural resources. For the sophistication of a town facade, pre-cast biscuit-coloured polished terrazzo was added as a facing material. The street facade, therefore, is composed of terrazzo-faced piers, window heads and cills, ledges and mouldings, and panels of 2" yellow-bronze bricks, manufactured in Natal. The courtyard facades were originally intended to be similarly faced, but the need for economy brought about a change to cement plaster piers and window heads, although the bronze brick panels were retained. The larger wall surfaces have been faced with various Transvaal bricks, the colour depending upon the function (the reflection factor in particular) of each surface. The party walls, which will in time be at least partly covered by adjoining buildings, are faced with the most economical type of bricks consistent with good weathering and colour harmony. These latter surfaces, which frequently cause movement and weathering difficulties in multi-storey buildings are separated almost completely from the structure of the building, and sub-divided into panels at floor levels by means of the concrete toes, each of which is formed into a weather mould. Courtyards and flat roofs are surfaced with slate embedded in mastic. The windows throughout are of heavy steel sections, with horizontally pivotted opening sections, and enamel painted off-white.

The external treatment of the ground floor, while in harmony with the treatment of the general facade, links up with that of the open approach to the Entrance Vestibule and the Vestibule itself. The front wall of the semi-basement, built on the building line, leads to and emphasizes the steps up to the ground floor. It is faced with a granite-coloured terrazzo, its windows being screened with cast bronze grilles. At the higher level the columns, here given full expression, are faced with Italian marble; the windows are treated as panels and are made up in a combination of glass bricks and bronze-faced window units. The wall facings of the Entrance Lobby take up the material of the Vestibule, as well as those of the facade proper — a buff-coloured terrazzo, glass bricks, the Italian marble and bronze shop-fronts, direction boards and lettering. The main Entrance doors, as well as those leading to the shops, are of teak and bronze. The external floors and steps are of South African marble and red quarry tiles; the Vestibule, including the main stairs, is paved with marble. Fittings and railings are of bronze. A ceiling of rough-faced plaster coloured a pale pink, and on which circular fluorescent fittings are geometrically spaced, covers the Vestibule and the lobby.

Above the ground floor level, materials were chosen on utilitarian lines. Floors throughout are of chocolate-brown asphalt tiles, with inset strips to create the versatile pattern needed to cater for the variation in room sizes. The ceilings, of insulation board, are likewise designed in a pattern of small units — for flexibility in use and for ease of removal (the ceilings being in effect continuous ducts). The surrounds to the lift openings are faced in 2" iron-spot light yellow bricks, reflecting on a smaller scale external facings in the courtyards. Internal partitions (usually 7" cavity walls) and piers are plastered stock brick with a stipple painted finish. Door linings are of steel, the doors themselves, as well as all interior woodwork, being waxed Kejaat.

The system of fenestration adopted generally for the building was decisively influenced by internal requirements. It was felt that, although the quantity and distribution of natural light must be generous, the feeling of security and privacy was an important psychological factor to be considered in a building of this nature. For this reason, the modular spacing of windows and piers which was finally adopted represented a synthesis of structural, planning and psychological requirements. The piers, being the same size as the columns on external walls, provide deep reveals and cills. This depth is used to enclose and build in curtain tracks and Venetian blinds above the cill, and convection-type hot water radiators and cupboards below. The

This waiting room illustrates the window and pier relationship from the inside. While the pelmet is unfortunate and not part of the building design the window relationship to wall and pier is very successful. Note the heaters under the window and the patterned ceiling.

The East Courtyard and, facing, a view from the North-west. A primary objective of the architects was to achieve a clean simple outline to this building which is seen from many points of the City, towering above its neighbours. In this they have been eminently successful: there is (or was) no ugly protrusion of elements on the roof until the blank but architectural north elevation became the support of the large incongruous and damaging sky sign.

Photo: B.R.S.

deep cills are of terrazzo, cast in one piece with the external cills. The steel radiator covers are ivory enamelled. In practice, the glass area predominates in the wall surface, and, though the piers and columns, read in the round, are massive, there is an even distribution of daylight due to the regular wall to wall window system.

The sound-insulation of the suites is considerably assisted by the floor construction, the boarded ceilings, and the cavity wall construction of the partitions. The disconnection between structure and internal walls and surfaces, though not completely achieved, is also an important contributory factor in this direction. Similarly, for the same reason, the effects of structural movement, often seen in Johannesburg's high buildings, are minimised, especially in the external walls. In the party walls in particular, safeguards against cracking and the subsequent moisture penetration have been introduced. Facings generally have been kept down to small units, in which damp-proofing precautions have been taken. For example, metal weather bars have been incorporated in all terrazzo facing slabs, none of which are of very large dimensions. By this method the effect of vertical movement has been largely obviated. After having been completed for almost four years, the building shows the benefits derived from the careful selection and use of the materials, justifying to an extent the additional cost of the constructional methods adopted.

Architectural Aims and Objects

A description of a building which confines itself to an account of the programme and the physical requirements, limitations and possibilities imposed upon or open to the designer, is obviously incomplete. Such a description cannot, in the end, explain why the building took shape in the way it did or why an emphasis was placed here rather than there. In short, its architecture is still an intangible quality, observable to some, felt by others, which yet eludes description and defies precise definition. To establish the worth or otherwise of a work of architecture, we inevitably fall back on a series of conventions, the terminology of criticism not least amongst them. And through the ages values have changed, as man's social structure, his physical requirements and visual responses have changed. Notoriously unreliable is the verdict of the critic on the works of art of his own age, for architectural criticism, in the final analysis, is as much a part of its own age as the architecture it criticises, and so it tends to dwell in the established, the orthodox and the banal. Architecture, however, has the advantage over other arts, in that it is an art not only of the visual but also of the useful. The quality of a building, therefore, may be measured, at least in part, in terms of the practical fulfilment of its function.

It is not the intention here to enter far into fields beyond the practical. Some of the thoughts of the architects in designing Medical Centre, however, may usefully supplement the unadorned description so far attempted. Medical Centre was the first major post-war work of architects who had participated in the architectural "revolution" of the early 30's. In those happy days, the thoughts and tenets propounded by the masters (Le Corbusier, the master, in particular) were readily absorbed, expounded and demonstrated. After all, they corresponded, it seemed exactly, to the world-wide move of a new generation of architects to break with a threadbare and barren tradition, emasculated to the point of complete futility. There is no doubt that youth was on the side of the clean sweep, of the fresh start on first principles, of the architecture of this new, the scientific, industrial age. The road of functionalism lay clearly ahead; deviations, other than those indicated by the masters, were to be eschewed. Let it be said immediately that the revolution was a reality. It ushered in an era of clearer thinking and released the capacity for boundless invention and experiment which is peculiarly the architect's. And it was not, after all, out of step with an age which is, for better or for worse, basically scientific and industrial in its orientation and achievement.

But the very force of the new movement's iconoclastic sweep narrowed the vision and restricted the creative expression of its proponents and disciples. This, of course, is a broad statement. Many works were produced worthy to take their place in the history of a great art. Nevertheless, the predominating influence of the movement was sufficiently confined to bring about a degree of sterility and copyism in the body of the work of the new generation of architects. Its 'international', universal application, too, lacked a firm basis in regional and national realities. Hence, a certain perversion of forms and materials was evinced in order to achieve "effects" and an illusion of a common international basis where none existed.

An awareness of the defects and weaknesses of the first surge of the modern movement was current amongst architects in the immediate post-war period. The time-lag alone, the vacuum created by the war, was sufficient to cause a revaluation to be undertaken. It was in this mood that the architects of Medical Centre embarked on their new project. Apart from the international influences, there was the local scene to be reviewed and brought into account. The 30's had left an indelible impression on the architective of Johannesburg. The profounder influences were to be found in the release from the planning inhibitions and constrictions of the neo-classic period; in the consciousness of space relationships freed from the now arbitrarily used conventions of a Victorian and more distant past; and in the harnessing of modern industrial technique to produce a new means of building, especially in its component parts. But actual buildings were disappointing, revealing the weaknesses touched on above. The descent from the sincere endeavour to the plagiarism, to the debased, commercialised

Photo: N. L. Hanson

building was very marked. It seemed that a means of architectural expression had to be sought once more, working from the ground up.

The besetting evil of the Johannesburg scene was the 'facade' which gave an applied front to a building, no more than skin deep, while concealing not at all the rather grim anatomical details of sides, back and top. Although the building site of Medical Centre was an internal one, the three dimensional qualities of a building by far taller than its existing and, to a certain extent, of its future neighbours, were of paramount importance. Hence every face of the building, whether street facade or party wall warranted careful handling. And each should be seen as part of the whole. By the same token, the unnecessary standard bye-law draping of building faces with inconveniently-placed plumbing details was vigorously to be rejected. The form of the building was to be considered, too, up to and including its apex, where, as a rule, ungainly lift motor rooms and supply tanks find their awkward home. Purity and simplicity of form, then, were primary objectives, but form arising from function; a function broad based and comprehensive.

The factors which guided the planning of the building, the materials used in its construction, and the structure itself, have been described. It remains, perhaps, to attempt to explain why the building looks as it does. The principal interest, leaving aside the form of the building as a whole, lies in the treatment of the street facade, from which derives the general character of the building. This facade was conceived essentially as a flat rectangular plane on which the repetition of the single elements of window and pier was the dominant motif. A pattern indicative of both the horizontal division of the multi-storey building and of the continuous vertical structural members, suggested itself. The varying internal arrangements of the suites, however, meant varying room widths, which took little account of the structural sub-divisions. Though schooled in the modern tradition of an emphasized structural expression, the architects in this instance considered that, provided there was no contradiction of, or conflict with, structure, such expression could be subdued in favour of the overall pattern. Thus the pattern in its own right became a function of the design, of the building itself. Once this premise is accepted, the external expression of piers and columns could, or even should, be identical. The texture of the pattern, nevertheless, was horizontal as well as vertical. Considering the facade as a whole, slightly greater weight was given to the vertical members, as being consistent with the proportion of the rectangle of the facade, and the impression of height which the building imparts. To avoid undue weight, the voids (windows) and the horizontal floor and cill bands were outlined with slender head and cill members in light-tinted terrazzo, and the solid bands themselves constructed in narrow bronze-coloured bricks, the heaviest colour used on the facade. The piers and columns, as previously described, were faced with terrazzo. (Incidentally, black and white photographs do not, as a rule, convey the balance between the horizontal and vertical elements which was here attempted.)

The facade changes functionally on the ground floor. Here the fixed spacing of the constituent parts followed the structural rhythm, and it was possible, and desirable, to express the structure precisely at this, the most directly seen, level. The concentration of entrances at the one side of the ground floor called for emphasis, given by means of the protecting cantilever hood carrying the large bronze lettering, and echoed on the broad facade above in the placing of the flag masts and their heavy projecting supporting bases.

It is not the purpose of this article to go beyond the descriptive. The success or failure of the design of Medical Centre must be left to others to assess. But a just assessment can be made only after all the contributory factors are known and taken into consideration. Although it is true that a work of architecture is judged ultimately as a work of art, for the qualities which transcend function and utility, yet an understanding of the processes by which it takes form and by which its usefulness is determined is a necessary background to the final judgement.

MEDICAL CENTRE, JOHANNESBURG: CONSTRUCTION AND MATERIALS. Contractor—S. Stein & Son (Pty.) Ltd. Reinforced Concrete (Truscon Floors)—A. S. Joffe & Co. (Pty.) Ltd. Steel windows—Crittall-Hope. Shopfronts, lettering and bronze work—Fredk. Sage & Co. Painting—E. Bilchik & Co. (Pty.) Ltd. Plumbing—I. Goldsmith & Sons. Heating (Trane) and hot water—F. A. Sharman (Pty.) Ltd. Lifts (Westinghouse)—Herbert Davies & Co. Ltd. Marble—Marble Lime & Associated Industries Ltd. Bricks—Coronation Brick & Tile Co. Ltd. (bronze facings)—Brick & Potteries Co. Ltd.; Primrose Brick Works. Ceilings—board (Celotex)—W. F. Johnstone & Co. Ltd.; plaster—Fibrous Plaster Ceiling (Pty.) Ltd. Glass—Furman Glass. Locks—Unilok. Asphalte Tiles—North British Rubber Co. (S.A.) Ltd. Terrazzo—Plastering Industries (Pty.) Ltd. Flat roofs—Mazista Slate Quarries Ltd. Light fitting—Domenic. Electrical Installation—De Wolff and Rudner (Pty.) Ltd. Plastering—Harris and van Rooy (Pty.) Ltd.

Photo: E. Robinow

INGRAM'S BUILDING, HILLBROW, JOHANNESBURG

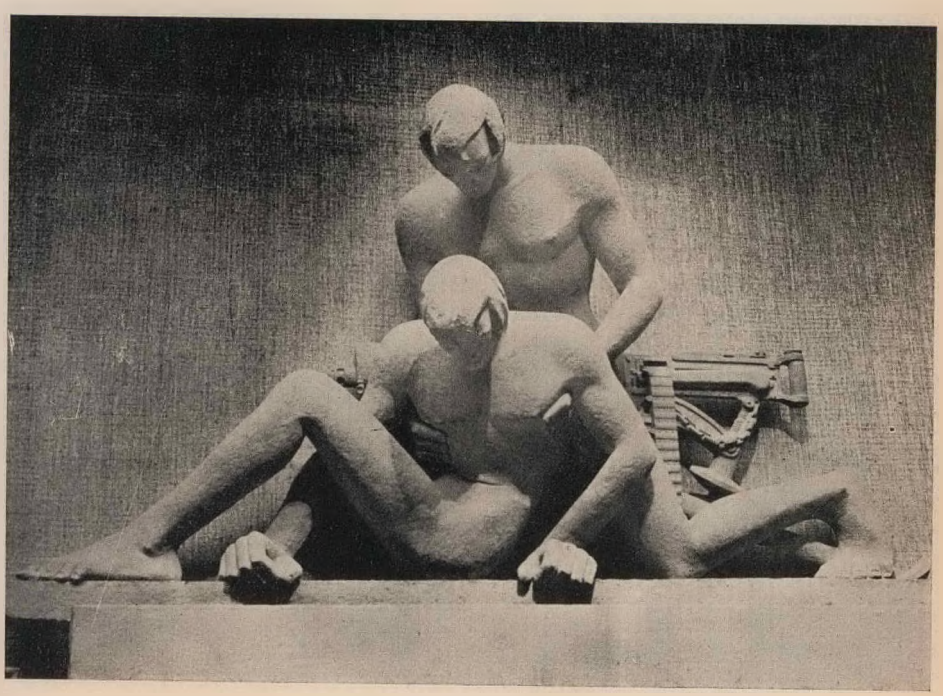
INGRAM'S BUILDING, JOHANNESBURG

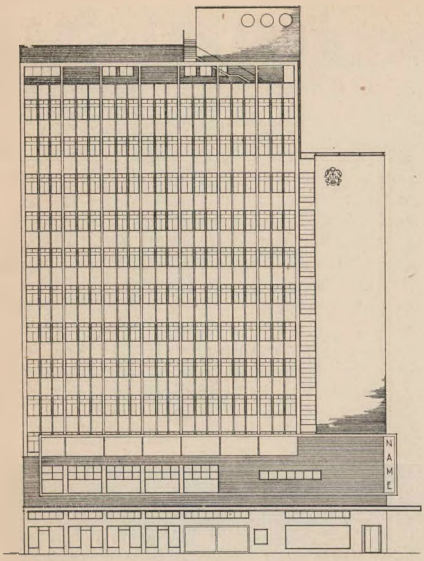
COWIN AND ELLIS, AA.R.I.B.A., MM.I.A., ARCHITECTS

The site of this building is in Hillbrow, in the very heart of Johannesburg's flatland, and is conveniently near the General Hospital, Medical Research Institute and various Nursing Homes, and as such the owners envisaged a building in which members of the Medical Profession could be accommodated.

The site measures 100ft. x 100ft. and faces North and West. A maximum of seven floors was permitted under the Town Planning Regulations. On the N.E. corner of the site there were shops with concrete frame construction designed to carry seven floors of flats. In view of the resulting difficulty in planning for a different type of building if the column layout was to be followed, and also on account of the excessive noise of trams and cars on two main roads, it was decided to take advantage of the additional height allowed in this area, although conforming to the maximum bulk regulations, by set-

The sculpture illustrated below is by Willem Hendrikz. It first was exhibited at the South Africa Academy in 1949. As the building was designed with the purpose of accommodating members of the medical profession on their return from active service, the theme of the sculpture, which appears on the west facade over the entrance, was the work of the medical services in time of war.





NORTH ELEVATION

ting the main structure back on the southern portion of the site. An additional advantage of course, is the benefit of a northern aspect to ten floors of professional suites which could not otherwise be obtained.

The main body of the building as designed consists of a basement, two floors of shops, one floor restaurant, nine floors of professional suites and one floor for native servants.

The professional suites all have a 7ft. high enclosed corridor on the south with clerestory light to the inner offices off this corridor.

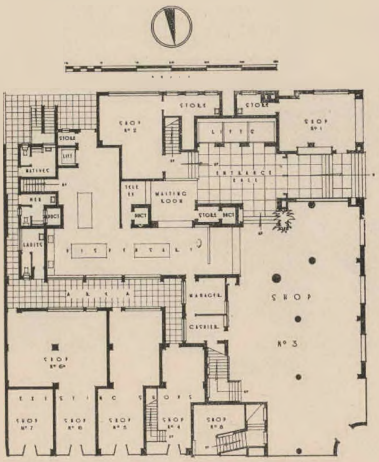
In order to increase the area available for shops, the first floor was developed as showrooms to be let either with or without the shops below. Advantage was taken of the flat roof over first floor to provide a roof garden restaurant.

The top three floors contain a Nursing Home complete with wards, operating theatres and nurses' accommodation, together with the surgeon's normal consulting and waiting rooms and office.

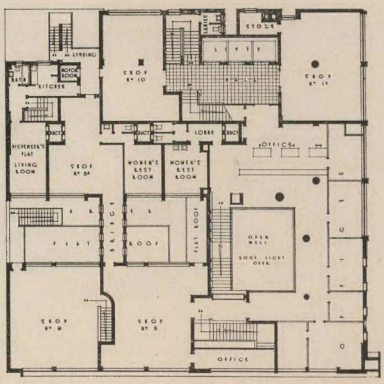
Four pipe ducts, each 6ft. x 4ft., were placed so that all the services therein were accessible to these offices. In a building where such a multitude of services were required, this proved to be advantageous from every point of view.

The exterior finishes consist mainly of plum coloured face brick, precast Lincoln stone, steel window sashes and panels. Internally the walls on the ground floors are faced in marble, slasto stone, plate glass and other durable materials. The floors are in mosaic asphalte tiles.

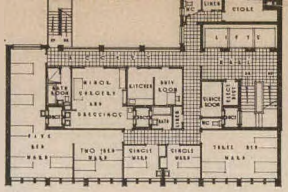
The floors to the upper suites are in asphalte tiles and wood blocks and the majority of the walls are finished in oil paint on plastered walls.



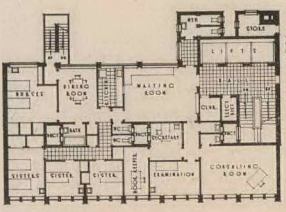
GROUND FLOOR



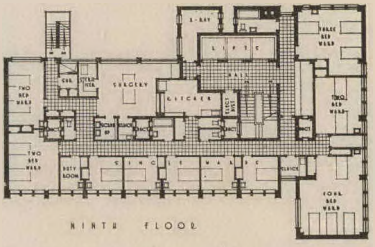
FIRST FLOOR



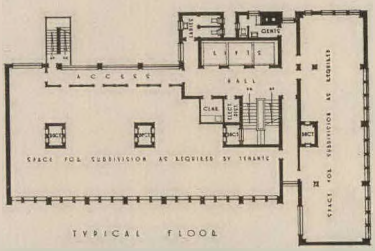
ELEVENTH FLOOR



TENTH FLOOR



NINTH FLOOR

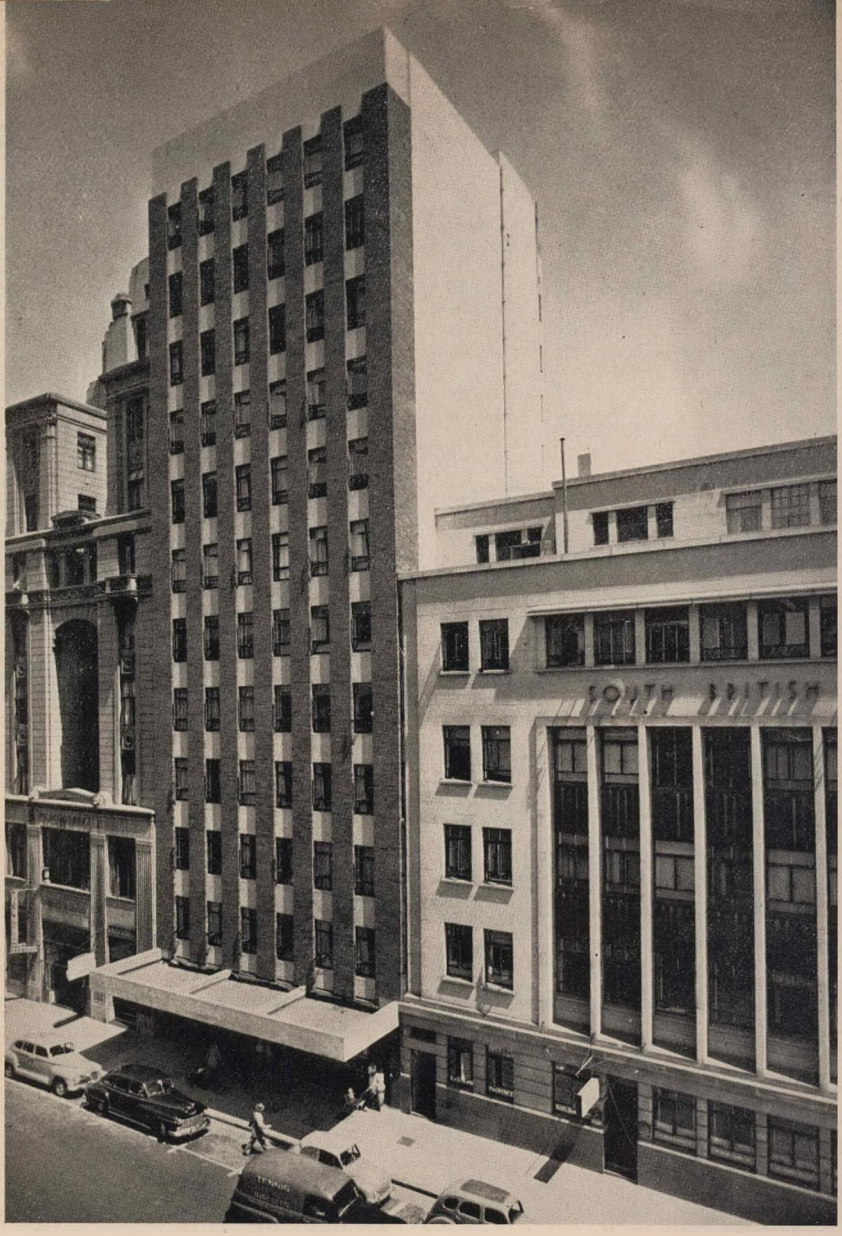


TYPICAL FLOOR

Photo: Alan Yates

The fenestration includes, on the north facade fanlight ventilators, over the main windows, which are deeply recessed permitting their being opened and uncovered at any time irrespective of sun angle or weather. That on the west facade has been restricted to narrow horizontal bands, behind which are installed, integral with the steel window frame a system of adjustable steel louvres. Dark coloured brick is contrasted with the white "snecks" which pattern the blank wall surface.

INGRAM'S BUILDING, JOHANNESBURG: CONSTRUCTION AND MATERIALS. Contractor—S. Stein & Sons (Tvl.) (Pty.) Ltd. Reinforced concrete design—the late Dr. E. G. Baumann. Painting—E. Bilchik & Co. (Pty.) Ltd. Plastering—Harris and van Rooy (Pty.) Ltd. Plumbing—I. Goldsmith & Sons. Shopfronts—Fredk. Sage & Co. (S.A.) Ltd. Pumps—Matheson & Bremner. Lifts—Waygood-Otis. Service lift—(Schindler) Hubert Davies & Co. Ltd. Flooring—North British Rubber Co. (S.A.) Ltd. Heating—A. B. Barker. Air conditioning—Air Conditioning & Engineering Co. Marble—Marble Lime & Associated Industries Ltd. Terrazzo facings—Plastering Industries (Pty.) Ltd. Roofing—Mazista Slate Quarries Ltd. Ironwork—F. Gwilliam (Pty.) Ltd. Steel windows & steel reinforcement—Wire Industries S.P. and E. Co. Ltd. Light fittings—B.G.E. Shopfittings—Union Shopfitters. Bricks—facings, Kirkness; general, Sand Lime. Glass—Furman Glass. Fire Appliances—Safex Engineering Co. (Pty.) Ltd. Sanitary ware—W. F. Boustred Ltd.


SOUTH BRITISH

MEDICAL CENTRE, FIELD STREET, DURBAN

S. N. TOMKIN AND PARTNERS, AA.R.I.B.A., MM.I.A., ARCHITECTS

The site is 40 ft. in width x 76 ft. in depth, and is located between the Esplanade and Smith Street. Water is present approximately 3' 0" below the natural ground line and the added presence of an old stormwater drain from the Berea running across the site complicated foundation work to some extent. Plan requirements were for a building which on the ground floor would house a surgical bootmaker who was the tenant in the previous building which occupied this site, as well as a Chemist for dispensing Doctors' prescriptions. Typical floors had to be designed to house returned army medical officers. The floors, therefore, were to be as flexible as possible with provision for plumbing points almost anywhere in the building. A large stretcher lift was provided particularly for the use of the radiologist.

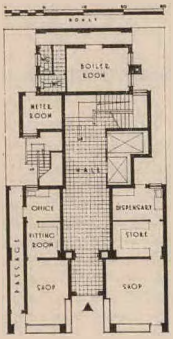
At the time of designing the building, the tenants' requirements were unknown and it was only during the construction of the building that tenants' applications were accepted and their detailed requirements worked out within the limitations of the typical floor plan.

* * *

The major problem was one of plumbing and horizontal ducts at ceiling level were introduced around the perimeter of the back section of the building on each floor in order to give maximum flexibility of plumbing arrangements without undue cost. These horizontal ducts are fitted with continuous hinged access doors for their entire length. The narrowness of the site prohibited the introduction of large vertical ducts, and the solution adopted appears to have resulted in reasonable plumbing maintenance.

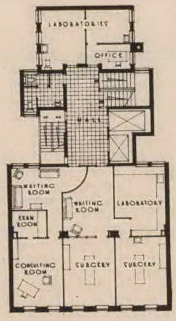
CONSTRUCTION:

The structure of the building consists of a reinforced concrete frame standing on a concrete raft. The Field Street elevation is

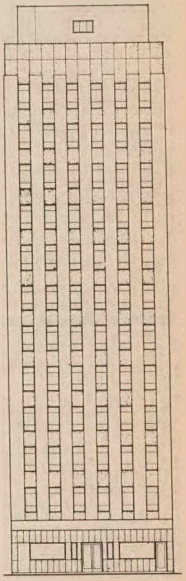


GROUND FLOOR

FIRST FLOOR



SECOND FLOOR



ELEVATION TO FIELD S

finished in bronze facebrick and terrazzo slabs with steel window frames finished in sprayed bronze. The ground floor shops are faced in polished granite and the ground floor entrance hall in white marble with a marble floor. All typical floors are finished in asphaltic tiles throughout the entrance halls, consulting rooms and surgeries.

The lifts are gearless Westinghouse. This is the only building of its type in Durban which houses medical practitioners only and contains the library of the Medical Council.

MEDICAL CENTRE, DURBAN: CONSTRUCTION AND MATERIALS

Contractors — Turnbull and de Swardt (Pty.) Ltd. Plumbing — Allanson and Sommer (Pty.) Ltd. Electrical Installation — Associated Electrical Contractors S.A. (Pty.) Ltd. Lifts (Westinghouse) — Hubert Davies & Co. (Pty.) Ltd. Shop fronts — Robertson & Cubitt (Pty.) Ltd. Granite — T. Midgley & Son. Terrazzo facings — Plastering Industries (Pty.) Ltd. Roof and Slate cills — Mazista Slate Quarries. Marble — Fine Art Marble Works. Asphalte tiles — Lino Specialists Co. (Pty.) Ltd. X-ray equipment — S.A. General Electric Co. Ltd. Boiler and pumps — H. Incledon & Co. S.A. Ltd. Plasterers — de Bois and Heward (Pty.) Ltd. Painters — E. Bilchik & Co. Steel windows — Wire Industries S.P. & E. Co. Ltd. Bronze Facebrick — Coronation Brick & Tile Co. Ltd. Laminated Doors — Skinner Thomas (Pty.) Ltd. Hardware and Sanitary ware — Rance-Cally, Durban (Pty.) Ltd.

CONTEMPORARY JOURNALS

COMPILED BY UGO TOMASELLI

ARCHITECTURE

Architectural Review, September, 1951. pp. 151-154, pp. 163-174.

(1) A New Eclecticism? by Robin Boyd. Modern architecture is divided by the new war of the styles — the Organic versus the Functional. The author proposes a third solution. He examines two new Australian houses with a view to discovering how far their great and obvious difference of appearance may be explained in terms of the expressed aims and beliefs of the opposed stylistic camps.

(2) *The History of the Train Shed*, by Carroll Meeks. The author traces the history of the train shed from its first use at Crown Street Station, Liverpool, in 1830.

Architectural Record. August, 1951. pp. 89-97.

The International Style 20 Years After, by Henry-Russell Hitchcock.

Journal Royal Architectural Institute of Canada. Sept., 1951. pp. 262-267.

United States Architecture in a Lifetime, Richard Neutra. Article drafted by Richard Neutra as a preface for the Book Richard Neutra, Projects and Buildings by W. Boesiger, but later withheld in favour of an introduction by Dr. S. Giedion.

Architectural Review. November 1951. pp. 311-315.

Frank Furness. Louis Sullivan was a pupil of the unknown artist Frank Furness. Mr. Campbell, the author of this article, establishes the chief facts of the life and work of Furness, and notes to the illustrations are provided by Dr. Pevsner.

Architectural Record. July, 1951. pp. 86-99.

Humanity — Our Client, by John Burchard.

APARTMENTS

Architectural Review September, 1951. pp. 155-162.

Flats in Harlow New Town. Architect: Frederick Gibberd. To avoid the usual prospect of low small house development, the flats were designed in two blocks, one three storeys high, the other ten, which provide both a broken silhouette and contrast in mass.

Architectural Review. December, 1951. pp. 373-375.

Flats in Sao Paolo, Brazil, designed by Rino Levi. A ten storey luxury block of flats, providing basement parking, groundfloor garden and play space, and nine floors of flats. The utmost flexibility in adaptation of the flats by the tenants is provided for by leaving unpartitioned bedroom, living room and dining room areas, until the tenants have decided their own requirements.

Architectural Forum. September, 1951. pp. 201-205.

Two-Front Apartments. A three-storey framed structure designed to face up and down San Francisco's Telegraph Hill to capitalize both view and breeze. Henry Hill, designer.

COMMERCIAL

Architectural Review. December, 1951. pp. 370-372, 383-388.

(1) Bank and Office Building in Sao Paolo, Brazil by Rino Levi. The facades facing away from the sun are entirely glazed.

(2) Furniture Showroom in New York by architect Florence Knoll.

Architectural Record. August, 1951. pp. 120-123.

Three interesting shops are illustrated:—

(1) Watchmakers Shop in Beverly Hills, Calif., Mark and Joyce Sink, Designers.

(2) Optometrist Shop in New York City. S. Glaberson, Architect.

(3) Store for Edythe Nelson Inc., for sale of handbags, blouses etc., Schiffer & Klein, Architect.

Progressive Architecture August, 1951. pp. 55-57.

Bottling Plant for the Canadian Dry-Tru Ade beverages plus the truck delivery and shipping business that the process involves. Reisner & Urbahn, Architects.

Progressive Architecture. September, 1951. pp. 81-85.

Magazine Distribution Warehouse, Oklahoma City. Conner & Pojezny, Architects.

Architectural Forum. December, 1951. pp. 180-199.

(1) Framingham Shopping Centre. Ketchum, Gina & Sharp, Architects. This shopping centre is enveloped by parking areas and designed around internal courts.

(2) Marshall Field & Co. Shopping Centre. Modulated Plan has sunken truck road around building perimeter and main store level midway between double-deck parking. Designs by: Ketchum, Gina & Sharp, and Perkins and Will; Shaw, Metz & Dolio; Skidmore Owings & Merrill; H. Fisher Associates.

DOMESTIC

Progressive Architecture. May, 1951. pp. 67-86.

Residential Design, 1951. Seven houses are illustrated:—

(1) House in Orlando, Florida. Architect A. Knowlton.

(2) House in Lexington, Mass. The Architects Collaborative.

(3) House in Tulsa, Oklahoma. Ramey, Hinnes & Buchner, Architects.

(4) House in Oklahoma City. Vahlberg, Palmer & Vahlberg, Architects.

(5) House in Colorado Springs, Colo. J. Ruhtenberg, Designer.

(6) House in Lafayette, California. Canfer & Ostwald, Architects.

(7) House in Brentwood Park, Calif. Craig Ellwood, Designer.

Architectural Record. August, 1951. pp. 114-119.

House in Settle, Washington. Lister Holmes & Associates, Architects. An interesting house built around a central playroom which opens out onto a sheltered terrace. Also provided are wading pools, swimming bath, tennic court and an upper deck.

Progressive Architecture. August, 1951. pp. 63-68.

House for a Physician, his wife and daughter in Los Angeles by Richard J. Neutra.

Progressive Architecture. September, 1951 pp. 88-91.

Architect's own home in Raleigh incorporating good accoustical conditions, space for informal entertainment of large gatherings, and a working laboratory for a kitchen. H. Kamphoefner, Architect.

Architectural Forum. December, 1951. pp. 101-152.

The following interesting houses are illustrated:—

(1) House hidden in the woods, Greenwich, Conn., Leinweber, Yamasaki & Hellmuth, Architects.

(2) 3-zoned house divided into service, living and sleeping quarters in Lake Vista, New Orleans. Curtis & Davis, Architects.

(3) House in Corpus Christi, Texas, designed to cope with exceptional weather conditions. R. Colley, Architect.

Architectural Review. October, 1951. pp. 221-232.

U.S. Domestic Architecture. Many houses are illustrated in this review including work of the Architects' Collaborative, C. Kock, Hugh Stubbins Jnr., V. Skully Jnr., C. Goodman, Twitchell & Rudolph, Pietro Belluschi, John Yeon, Campbell & Wong, J. Hillmer, F. Langhorst, Charles Eames.

Architectural Review November, 1951. pp. 306-308.

In the September issue of the Review Robin Boyd contrasted of two recently built Australian houses. The same houses are illustrated in greater detail.

Architectural Record July, 1951. pp. 100-112.

(1) Vacation House in Warm Springs, Oregon is sited on the banks of a river, and is designed for comfortable summer living, for entertaining guests and for use by the owners a few days each week throughout the year. Pietro Belluschi, Architect.

(2) House designed by L. Yost in Highland Park, Illinois.

EXHIBITION BUILDINGS

The Architectural Review. August, 1951.

South Bank Exhibition. A special issue devoted to the South Bank Exhibition, and covers the following:—

(1) *The Exhibition as Landscape.* An illustrated tour of the Exhibition, this section discusses and analyses the broader visual effects of the Exhibition, the skilful incorporation of existing buildings into the scene, the use of water, studied changes in level and of surface, contrast between apparent enclosure and sudden glimpses of far distance.

(2) *The Exhibition as a Town Builders' Pattern Book.* This section illustrates the quality of incidental design details — pavements, railing, steps, and street furniture.

(3) *The Exhibition Buildings* by J. M. Richards. Buildings are illustrated and discussed as individual examples of architecture.

(4) *The South Bank Translated* by Gordon Cullen. The author presents a plan for translating the temporary South Bank Exhibition concept from the Exhibition to every day London.

INDUSTRIAL BUILDINGS

Architectural Record. July, 1951. pp. 127-150.

Industrial Buildings — Building Types Study No. 176. Illustrations include the following:— Laboratory for Medical Research; Assembly Line for Baking Bread; Service Building for Machine Tools; Complete Plant for a Newspaper, and a Maintenance Shop for Diesel Locomotives.

HOSPITALS

Architectural Forum. September, 1951. pp. 196-200.

(1) A 325-bed Veterans' Hospital in Seattle, Washington. Architects: Naramore, Bain, Brady & Johanson.

(2) Mental Hospital. A new Psychiatric wing uses the flexible checkerboard wall and contemporary design for Tonic effects. Isadore Rosenfield, Consultant. L. Kahn, Architect.

The Architects' Journal. November 15, 1951. pp. 584-587.

Hospital ward Block, Greenock, designed by R. L. Davies. The first building to be designed by the Investigation into Functions and Design of Hospitals under the direction of R. L. Davies.

Architectural Forum. December, 1951. pp. 168-171.

Medical Centre designed by Isadore Rosenfield for the Tropics, Puerto Rico. A breeze-catching plan links three big hospitals, saves scarce medical talent and building materials.

LANDSCAPE

Architectural Review. December, 1951. pp. 377-382.

Wirescape Architectural Review discusses and analyses the visual distinguishing feature of our time "Wire".

Architectural Review. October, 1951. pp. 233-242.

Space left over: Making the Best of the Odd Corner. In every town a considerable amount of space is taken up by odd pieces of ground left over when a road is widened, a new building line established, a statue or drinking fountain set up. These spaces vary from areas just large enough for a bench and a tree to those in which several dozen people can pass their leisure moments. Unfortunately the treatment they have received has shown a singular disregard of their potential contribution to the Urban Environment. The Review here supplies a guide to the treatment of small spaces illustrated with paired examples of how and how not to do it.

Architectural Review. November, 1951. pp. 293-305.

St. James Park: The Rise and Threatened Decline of a Model Landscape by S. Lang. In landscaping St. Jame's Park, Nash achieved a remarkable effect of spaciousness in a very limited area. Unfortunately the authorities responsible for its maintenance today have defaced the park by a number of additions and alterations of poor taste. In this article the author investigates the history of the park, while the illustrations following it show some of the mistakes that have been made and puts forward some suggestions for future treatment.

MATERIALS & METHODS

Progressive Architecture. May, 1951. pp. 58-86.

(1) Wood Preservatives and Preservative Treatment by George Hunt.

(2) Odor Control in Air-conditioning Systems by K. Magee.

(3) Surfacing Waterproofing with Silicone Reims by F. Anderegg.

Architectural Forum. September, 1951. pp. 189-195.

(1) Prestressed Concrete. Report on an M.I.T. Conference.

(2) Precastructural Concrete. A review of recent developments of tilt-up walls by means of mobile cranes. Report by Paul De Huff.

Progressive Architecture. August, 1951. pp. 95-97.

Causes and Remedies of Plaster Cracks by V. Noble.

MOTELS

Architectural Record. July, 1951. pp. 119-124.

(1) Taurins Inc., a Chain of Motor Courts, designed by M. Duncan, Architect.

(2) Bisonti Lodge, Resort Motel in Palm Springs, California. H. Williams & Associates; E. Williams; H. R. Williams, Architects.

RELIGIOUS BUILDINGS

Architectural Record. August, 1951 pp. 124-147.

Religious Buildings. Architectural Record's Building Types Study No. 177. Illustrating the following:—

(1) The Convent of Mount St. Mary, Mass., M. Nelson, Architect.

(2) Resurrection Church, St. Louis Mo., J. Murphy & E. Mackey, Associated Architects. Designed to seat 800 and arranged to permit East morning light to penetrate deeply into the church.

(3) Roslyn Jewish Community Centre. Roslyn Heights, Long Island, New York. J. Ebstein, Architect.

(4) Lutheran Student Centre & Chapel, R. Hammett, Architect.

(5) Baptist Church, Long Beach, Calif., K. Wing, Architect.

Architectural Forum. December, 1951. pp. 163-167.

Pietro Belluschi designs a modern Gothic Church in wood laminated arches, Portland, Oregon.

RESTAURANTS

Progressive Architecture. June, 1951. pp. 85-88.

Cafetaria in Houston, Texas. Mackie & Kamrath, Architects. A Cafetaria designed to accommodate approximately 500, organised for two serving lines, with incoming and outgoing traffic separated.

SCHOOLS, COLLEGES, ETC.

Progressive Architecture. June, 1951. pp. 89-93.

High School and Community College in Keokuk, Iowa. Perkins & Will, Architects.

Architectural Record. August, 1951. pp. 98-105.

Elementary School at New Canaan, Conn., Sherwood, Mills & Smith, Architects.

Architectural Forum. September, 1951. pp. 160-163, 164-169, 174-179.

(1) Panama University, designed in contemporary style on an exciting sloping site. The scheme comprises: Science block, Engineering & Architecture Block, Liberal Art Block, Anatomy and Library Block. Three additional blocks are to be constructed: Law and Public Administration, Social Security Hospital (250 beds) and Maintenance and Garage. Architects: Bermudez, de Roux & M. Guardia.

(2) *University Art Centre.* The scheme, designed by E. Stone & Haralson & Mott comprises the following elements:—

1. A 300-seat theatre better equipped than most Broadway houses;
2. A 250-seat concert hall with a specially constructed organ;
3. A glass enclosed exhibition gallery superior to most of those in New York's Museum of Modern Art;
4. A 10,000-book Library with a magazine reading room in an open well below;
5. A three-storey classroom block containing (a) Painting and Sculpture workshops, (b) Music Rooms, (c) an Architectural School, (d) Combined offices and studios for the Art Faculty.

(3) *Dormitory Rooms* — planning for maximum spaciousness with minimum space.

(4) *Women's Dormitory* in Pullman, Washington, designed for a hilltop site and placed on stilts and varying levels.

(5) *Men's Dormitory* in Hampton, Vancova, designed by H. Robinson and W. Moses.

(6) *Trinity University* in San Antonio, Texas. Architects: O'Neil Ford, B. Cocke & H. Smith.

Progressive Architecture. August, 1951. pp. 71-88.

(1) Monterey Park Primary School; Phoenix, Arizona. E. Varney Associates, Architects.

(2) A Six-classroom, two-kindergarten Primary School in South San Francisco. T. Reid, Architect.

(3) A School with 6 classrooms; A Primary Room; an All Purpose Room with kitchen; a small Auditorium and Stage; Office for Principal; Library; Medical Room and Clinic in Rhode Island. MacConnel & Walker, Architects.

(4) 600-kindergarten School in Maricopa County, Arizona. R. Hover, Architect.

Article on Lighting the School Auditorium and Stage by C. Allen.

Architectural Forum. December, 1951. pp. 172-175.

(1) Top-lighted School in Long Beach, N.Y. comprising classrooms, library, gymnasium, auditorium, cafetaria, kitchen, kindergarten, medical centre, exhibition hall and staff offices. Reisner & Urbahn, Architects.

(2) Dormitory Furnishings illustrating greater spaciousness, lower costs & easier maintenance.

THEATRES

Architectural Review. December, 1951. pp. 368-370.

Theatre for the Sociedade de Cultura Artistica by Rino Levi in Sao Paolo, Brazil. The complex consists of a main auditorium, seating 1,560 people and designed for concerts and plays, a smaller auditorium seating 458 for chamber music and conferences, the Society's offices, two small shops and the necessary cloakrooms.

Architectural Forum. September, 1951. pp. 172-173.

Air Force Theater. This recreation centre is designed on a principle for earthquake ridden Guam. Architects: Antonin Raymond & Rado.

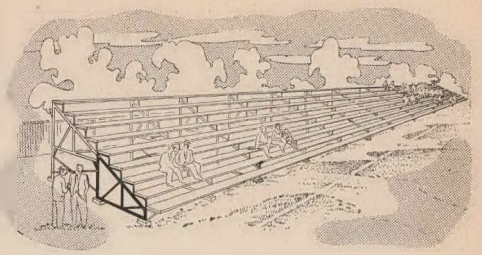
TRADE NOTES AND NEWS

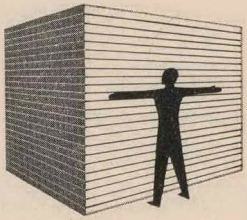
ENGINEERING DEVELOPMENT CORPORATION OF AFRICA (PTY.) LTD.

GRANDSTANDS ON BAILEY BRIDGE PRINCIPLE

Every day sees new applications of the prefabricated idea: and the latest innovation is the Portable Grandstand introduced by a South African firm specialising in the development of factory-made as opposed to custom-built structures.

The grandstands are designed on the Bailey Bridge principle; only two basic parts are used — frames and bracings. With these, stands of any length and height can be erected to seat crowds of any size. When not in use the stands can be easily dismantled and stored in a surprisingly small space. For example, the components of a stand to seat the not inconsiderable number of 900 can be stacked to a height of 8 ft. 4 ins. in a space only 8 ft. x 9 ft.. Seating boards take up a similar space. The facility this affords to municipalities, sports clubs and public bodies is self-evident. A crowd of 9,000, such as one might expect at a test match, could be accommodated on grandstands which, when not in use could be stored (with seating boards) in the area occupied by an average sized lounge.

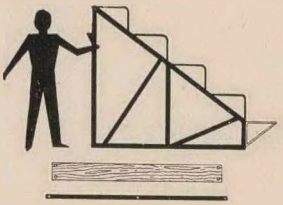




ABOVE: The basic unit, welded steel frame, is shown in black. The upper portion is the same as the lower with the addition of legs and bracing.

LEFT: The space required for storage of a portable stand seating 900 people is indicated by the diagram.

BELOW: The basic parts of the pre-fabricated grandstand, the frame, seat board and brace.



CHAMBERLAIN INDUSTRIES LTD., LONDON

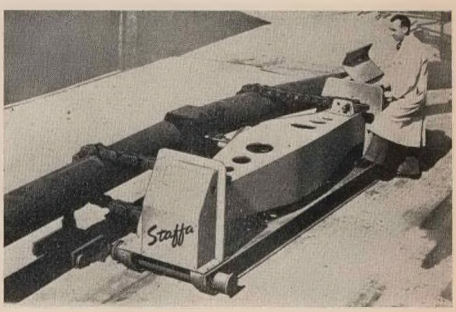
12 IN. HYDRAULIC PIPE BENDING MACHINE

This "Staffa" Machine is designed to bend solid drawn steel pipe of 12.75 in. external diameter, with maximum wall thickness of .375 in., bending centres 8 ft., with a maximum angle of bend per stroke of 5 deg.

The machine consists of a central former or saddle, mounted on an hydraulically operated ram. The former moves between two end chain fixings, thus bending the pipe which is contained between the central former and the retaining chains.

The ram unit, together with the end chain fixings is contained in a box section beam which can be rotated through 90 deg. This enables the pipe to be bent in a vertical or horizontal plane (or at intermediate angles).

The main frame, which has an overall length of 13 ft. 2 in., with a depth of 2 ft. 6¾ in. and a height of 3 ft. 2 in., is of bolted and welded construction, the main members (2-8 in. x 5 in. rolled steel joists) acting as skids on which the machine rests. One end of the frame is extended to form a platform on which the power unit is mounted. The power unit is either a petrol or 6 H.P. electric motor.



NOTES AND NEWS

THE CHAPTER OF S.A. QUANTITY SURVEYORS

REGISTRATIONS.

The following new members have been enrolled as salaried members: J. W. Boerstra, Bloemfontein; D. R. Fordyce, Johannesburg; E. A. Palmer, Cape Town; A. Scatterty, Pretoria; B. D. Shelver, East London; H. E. Wells, Johannesburg and B. H. Zipp, Johannesburg.

OBITUARY.

R. Anderson of Cape Town and G. E. Turner, Rondebosch.

CAPE PROVINCIAL INSTITUTE

Mr. A. M. Benjamin is now practising at 305 Mosenthal's Buildings, Market Square, Port Elizabeth, where he will be pleased to receive trade catalogues.

SITUATION WANTED

A Hollander draughtsman with diploma (M.T.S.) and two years' practical experience, age 23, requires position.

Enquiries to: E. Banninga, Directie Keet Genie, Corderen, Gelderland, Holland.

SPECIAL ADVERTISEMENTS RELATING TO BUILDINGS IN THIS ISSUE

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