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# South African Architectural Record: Journal of the Transvaal, Natal and Orange Free State Provincial Institutes of South African Architects and the Chapter of South African Quantity Surveyors

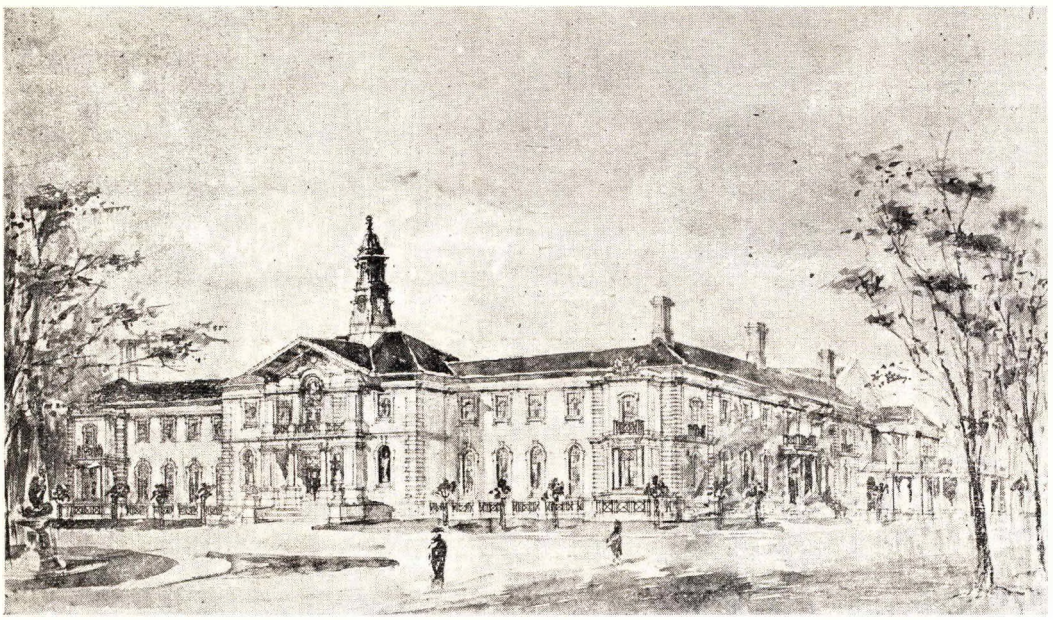
**1918**

Institutes of South African Architects and the Chapter of South African Quantity Surveyors

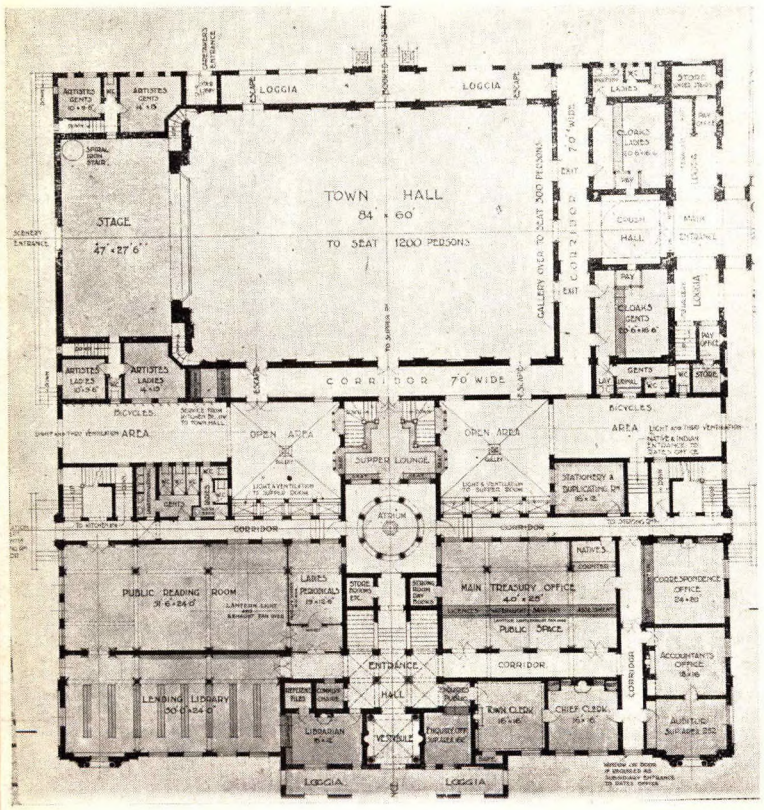
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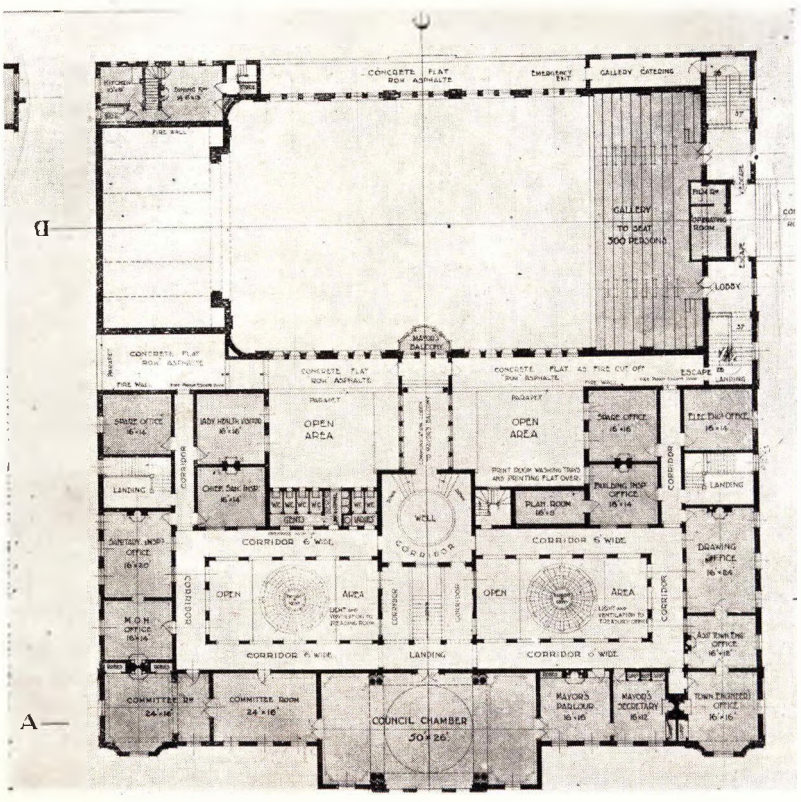
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PERSPECTIVE.

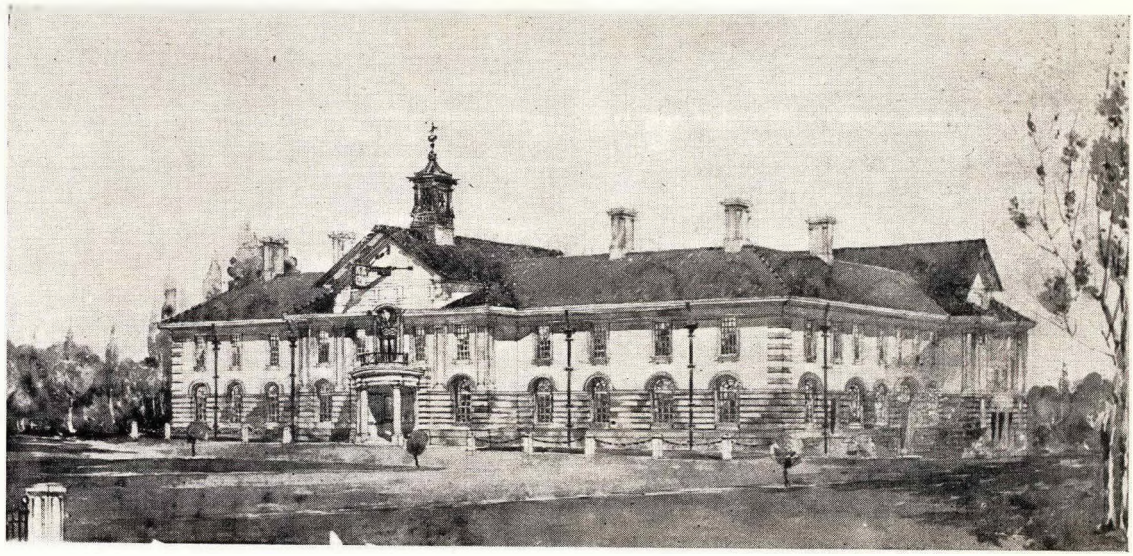



GROUND FLOOR PLAN.

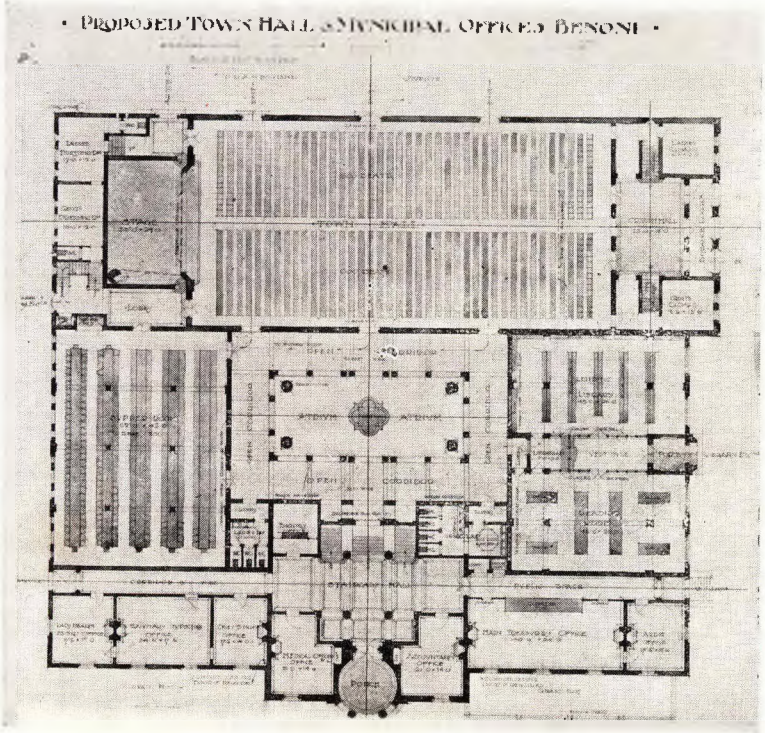



FIRST FLOOR PLAN.

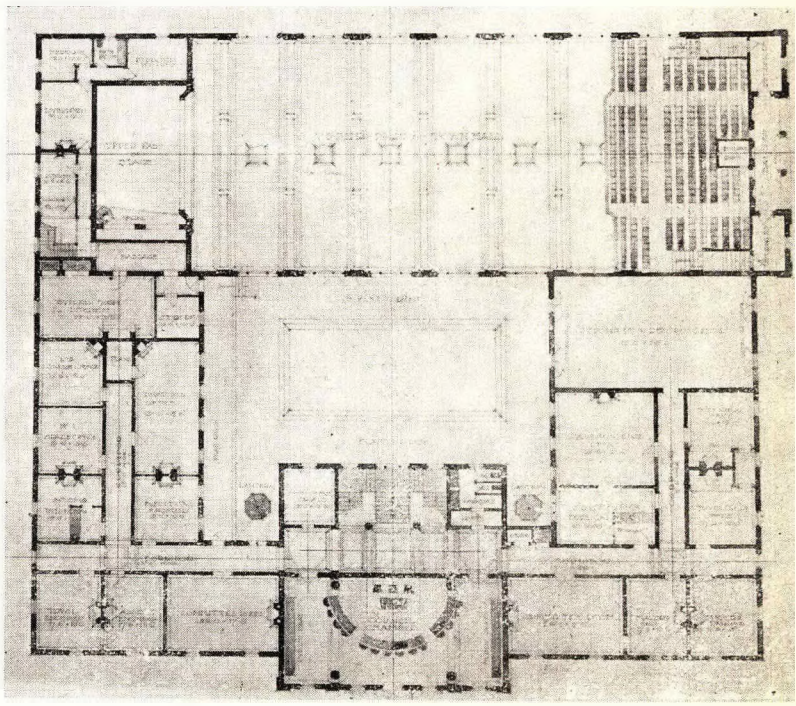
Second Premiated Design.—Mr. F. E. Parker & Mr. A. M. McKinley, Architects



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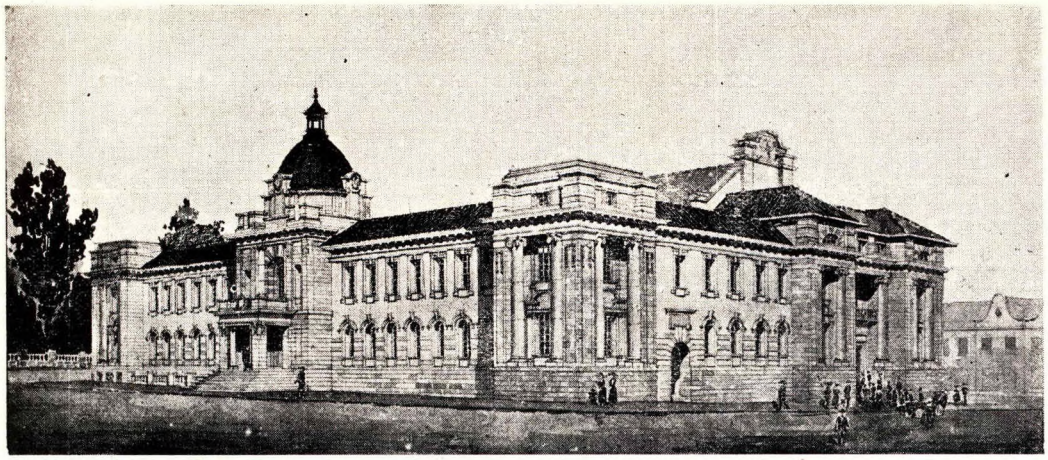



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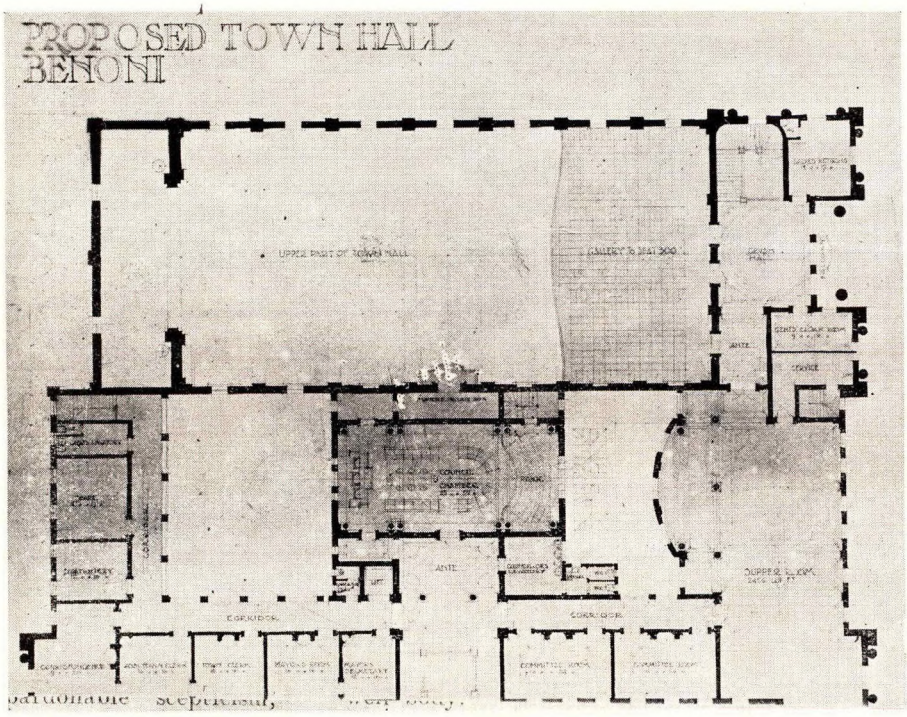


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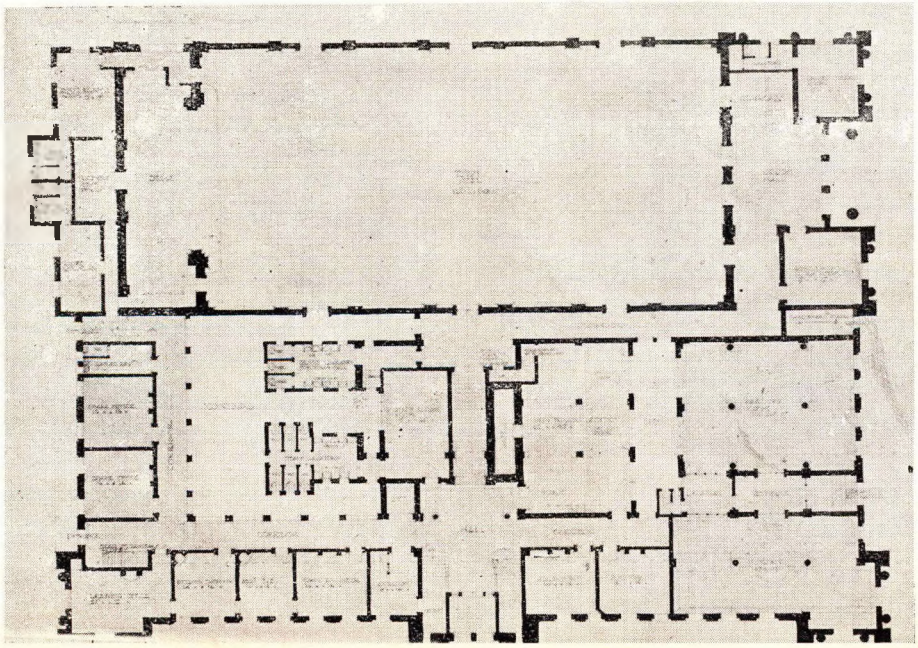
Third Primiated Design.—Messrs. Cowin and Powers, Architects.



PERSPECTIVE.




FIRST FLOOR PLAN.



GROUND FLOOR PLAN.

# The Pediment and the Gable.

By T. Gordon Ellis, A.R.I.B.A

Necessity is said to be the mother of invention; and that architecture's greatest virtues are those which result from necessities, and her faults and her virtues overgrown are truths which find substantial support in the history of the Pediment and the Gable. Through all the centuries since man first began to build, beauty has found a noble expression through need, but the beautiful when strived after often degenerates into the hideous and vulgar, this is well exemplified in the study of the subject in hand.



The Pediment and the Gable resulted from the manifest necessity of forming a suitable covering to protect man from the elements, and thus expressed one of the primary functions of house construction. This covering was necessary for throwing off rain-water, and it was this necessity that led the earliest European architects to construct a roof, not horizontal, a form on which water would lie, but of two inclined planes sloping up to a central ridge, and the result is that particular end-wall formation which in Classic or Renaissance work is termed the Pediment, and in Gothic the Gable. The almost infinite variety of treatment which has been lavished in the great periods for nearly twenty centuries on this important feature is the subject of this thesis.

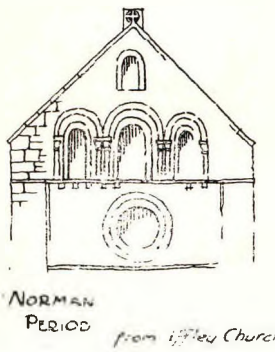
The form, thus naturally evolved by circumstances, forces itself on architectural man as beautiful, apart from the utilitarian point of view. Cicero, as all architects know, sums up the whole *raison d'être* and the value of the pediment in a phrase. Its form, he explains, is dictated by the primary function of the roof—the rejection of rain water; and then his enthusiasm leads his imagination to a beautiful contemplation, "were a temple built in heaven it is my belief that it would have a pediment." Whether this be so or not, we at all events know that ever since the first temple was built it has become an essential feature without which no temple can be considered complete, but it must be used in its proper place. How often has it been introduced otherwise in places where its obvious function is far removed from its original office! We are well acquainted with instances of its employment, and the Gable form too, in interiors, where they serve no necessary purpose, especially so in the Renaissance periods of Italy, France and England. What would Cicero say to-day if he could only look back, as we can, through the by-gone ages? At all events, there is something in its form which has so impressed itself on mankind that it seems impossible for him to dispense with it, even in places and under conditions where its real use fails to fulfil the original title of its existence, and yet to say that its form has exercised this fascination might mislead; for the feature has undergone, in the course of its development so many changes, that it is open to doubt whether Cicero would recognise in the scroll of a piece of Georgian furniture a descendant from the crowning feature of a Greek temple. None the less that so comparatively trivial a thing can be traced back step by step to so great a progenitor is patent to every scholar and architect.

Turning to the historical development of the Pediment and the Gable, it will be safe to state that their birth belongs to a remote period of architectural art when, as has been said, the beautiful was simply the resultant of the useful, and that their traditions are still carried on, even though their reputation for beauty often suffers from the want of usefulness. Seeing that it arose with a primary need, and has followed more than one style into decay, it is obvious that to write a history of their forms would be to cover a more or less exhaustive account of the architecture of many countries and most ages. All, however, that is possible in this thesis is to trace their evolution, with a short survey of the leading peroids and styles in which these important features are found, and to note some of the principles governing them.

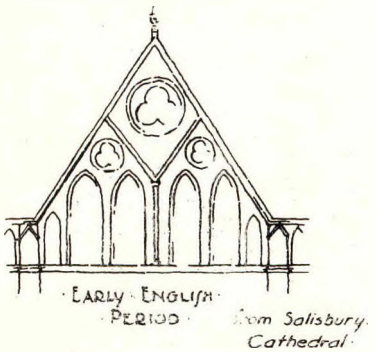
The first observation to consider, then, is the condition of climate. The Pediment or Gable being simply the end-wall finish to a roof, and taking, before design became self-conscious, an exactly similar formation in outline, it is only natural to refer to the principles which form the basis on which the roof derived its

slope. In hot climates rain more rarely falls than in temperate ones, but when it comes it is usually of short duration even though it may be more abundant, which added to the temperature of the air, makes it unnecessary to give a great slope to the roof, as the water readily runs off, and the conditions of air speedily dry it. In cold climates the rain is more penetrating, and the air more impregnated with moisture, and snow has to be taken into account, circumstances which make it necessary to form a greater pitch or slope to the roof; and, further, roofs covered with lead, zinc or copper do not require so great a slope as those covered with tiles.

The first broad principle, then, too look for is that since an increase of rainfall necessitates an increase of roof pitch, those countries subject to long periods of rain and snow would adopt a steep pitch, and those where showers occur only occasionally a flatter form. But this principle has not been universally applied, as is borne out by much evidence, although the general




rule finds a certain amount of support in the comparison of Classic and Gothic architecture. The Greek and Roman styles having been developed in bright and sunny countries with little rain, show a flatter form than the buildings of the Gothic manner which may be considered to belong to Northern Europe, where




rain is more abundant; and though we may from such evidence formulate a law that nearer a country is to the Equator the flatter will its roofs become together with its pediment and gable, we cannot over-press its application, for we shall soon find it upset. In the first place, we find that Gothic architecture has transplanted the gable to the very centre of Italy, while the pediment has become naturalised in all the countries of modern Europe. Secondly, we notice how in one and the same country the pitch of roof varies,

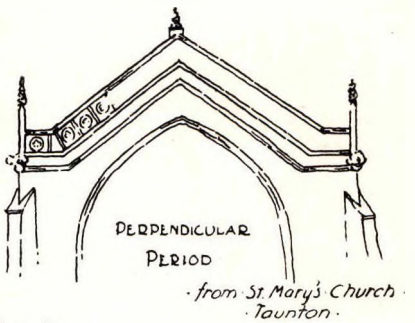



FIG. 1.

even in strict Gothic work, for we find it alters with the variations of the different periods (Fig. 1), and, further, buildings side by side belonging to the same decade do not possess the same angle or slope in their gables, and even in a single building variations are to be found (Fig. 2). From this it is evident that the

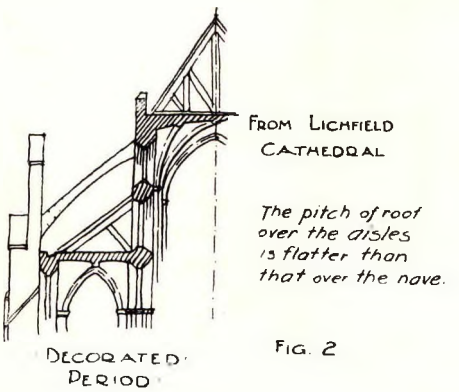



FIG. 2

primary consideration of adopting the best slope of roof to meet the climatic circumstances has been thrown aside in favour of selecting those forms demanded by the fashion of the age. Still we need not feel that the principle regulating the pitch of roof according to atmospheric conditions has been absolutely annulled by such adverse instances. For the changes of style in a country are generally as much importations as development, and by examination we are able to re-establish the apparently violated principle by discovering that the changes of roof pitch

together with its wall finish are merely introductions of new forms from countries where they owe their origin to conditions called forth by the requirements of the climate.

Turning now to a practical investigation of the origin of the pediment, it will be sufficient to concentrate attention upon its first great development in the architecture of Greece, and to follow it through its subsequent modifications. It is not, however, only of Europe that the pediment or gable is characteristic, for it is found in India and China, but these countries being far removed from us their influence (if any) need not be taken into account.

It is rather in those countries of Asia, bordering the Mediterranean Sea, that we naturally expect to discover the motifs which the Greeks adopted and developed to suit their requirements; but here we shall not be rewarded with much indication of the origin of

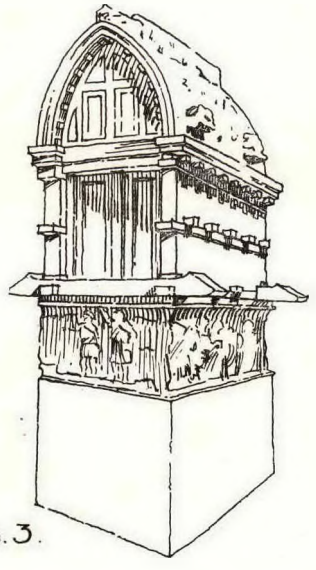


FIG. 3.

the Pediment as used by the Greeks, although it is true that there are one or two specimens of Lycian Tombs to be found now in the British Museum which are germane to the subject in general (Fig. 3). Each is surmounted by a curved roof, brought together with a continuous ridge, and consequently finished with a gable at each end. On inspection it is noticed that the whole mass of stone bears a strong resemblance to a wooden structure in every detail (except the sculpture in relief). The question may well be asked, why adopt a complicated form of roof instead of a simple one? The answer is suggested by its remarkable resemblance to a boat turned upside down and raised on four walls of simple wooden framing. The bow and stern being omitted, the ends form an opportunity for gables, and these consequently follow the curved form of the roof. They are interesting specimens, both from their peculiarity and antiquity, but as the architecture of tombs is applied to an unusual purpose, they can hardly be considered as a genuine link in the chain of the gable's history.

The architecture of Greece was derived from Assyria and Egypt, for since the antiquities of these countries have been laid bare to us, we are able to trace from their remains the prototype in most of the features of Greek architecture. This statement is, of course, almost universally true, yet if we search Egypt or Assyria for the origin of the pediment we shall not find anything to work on.

The Assyrians from all accounts, like other Oriental nations, covered their buildings with flat roofs of stone or soil on timber frame-work, thus serving a double purpose to keep the internal rooms at an equable temperature, and to be used as a promenade during the cool of the day. The Egyptians had no rain; so what need to form a roof of sloping sides or the resulting pediments?

Although the origin of the pediment has been lost to us in its antiquity, we can at least follow it out in its subsequent development. So turning to an examination of the pediment proper, we find it was in Greece that it really took its rise; and here, too, it reached its very highest form of beauty.

Now, the pediment is formed by continuing a portion of the cornice round from the sides of the building horizontally at the base of the roof's end-wall; at each

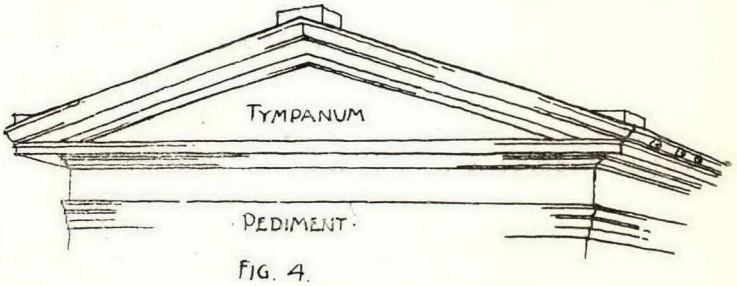



FIG. 4.

return end springs an entire continued raking cornice following the outline of the roof and meeting at its apex; enclosed by these three boundaries is a space called the tympanum (Fig. 4). The roofs were of marble, laid on wood rafters ,and to form a finish to the ends of the roof, the Greeks adopted an ingenious but simple method. The last row of tiles were made

turned up (Fig. 5) and moulded to form the crowning member or coping of the cornice to the pediment, sometimes partly or wholly returned along the sides to form a horizontal gutter, over the springing of the raking cornice there is evidence to show that a small

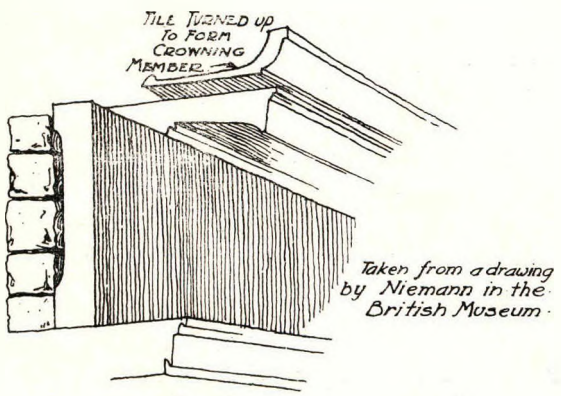



FIG. 5.

block was frequently left, surmounted by an ornament or a figure in order to give weight—an appearance of solidity—and to obviate the disquieting effect to the eye of the sharp cutting of the inclined drip and the apparent tendency of the cymaise or crowning member to slip. The tympanum created an opportunity for sculpture, and here we see some of the sculptor's most glorious works of art, and though showing a mixture of restraint and opportunity, achieved the highest point of excellence. The fragments of sculpture from the pediments of the Parthenon, now in the British Museum, afford an opportunity for study and to appreciate the acute enjoyment the Greeks derived from these pediments. The forms of its composition seem rather to grow out of than to be compressed in the tympanum, and show how thoroughly restraint was understood by Phidias and the various artists under his direction.

In Greece the pediment reached its highest state of purity, owing to its simplicity; and because of its excellence it comes about that of this period there is least to be said. But before passing on to the Roman period, the question of honesty arises, and as purity is the result of honesty it follows that the application of the pediment was perfectly truthful, and it was never used by the Greeks for the sake of ornament. From its use by the Greeks we must pass from the pediment's simplicity and perfection to the complicated variety of its form, leaving the best period of its existence without further discussion, and tracing the feature through its next phase as exhibited at Rome.

It is claimed that one of the chief influences to shape Roman architecture at its beginning was the work of the Etruscans; and Entruscan art is said to have its origin in Asia Minor. This is an interesting archæological study, but in this prescribed space we must be content to examine the pediment as we find it at Rome and through the Roman Empire, without searching too minutely whence it came. Vitruvius has given a description of a typical Entruscan temple (Ferguson Bk. IV. chap. I.), and from the drawings modern authorities have bassed upon his short statement, we may gather that the pediment was one of the characteristics the Romans adopted from them. Although this feature, as used in Italy may have sprung from the same source from which the Greeks derived it, and probably contemporary with each other, our study must be limited to those pediments of which we have records belonging to a period when the influence of Greece and Magna Graecia extended throughout all the countries bordering the Mediterranean Sea. Accordingly, the growth of the Roman pediment cannot altogether be considered to be an independent development.

The Romans were essentially great builders, who for the first time in the world's history rendered architecture subservient to the wants of their civilisation. It thus happens that in addition to temples, we find basilicas, theatres and amphitheatres, baths, palaces, triumphal arches, and gates, etc., all equal objects of architectural skill. Their needs had multiplied, and all found expression, more or less, in the same motifs the Greeks used in their temples. In Greece the pedi-

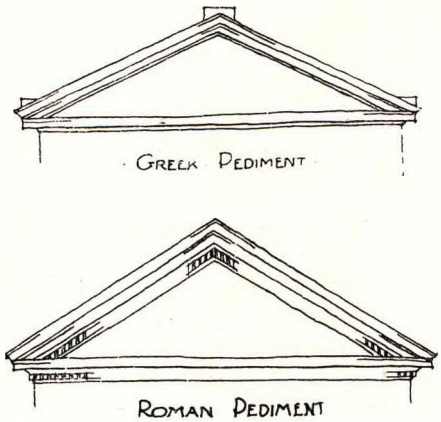
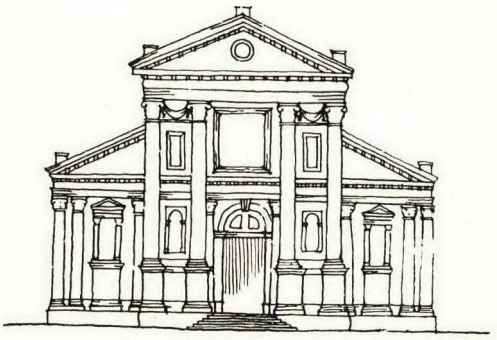



FIG. 6.

ment arrived at its dignity and perfection, in Rome we find the feature was first altered, being often faulty and corrupt.

The first point of variation to note is the difference in slope between the average Greek and Roman pediments (Fig .6). The Romans adopted a more acute apex, having a pitch of about 22° to 23°, while that of the Greeks was from 16° to 17°. What was the reason for this difference? Was it the result of climatic conditions, or any other cause? In the first place, the main principle we are trying to apply the law that further a country is away from the Equator the steeper will be its roofs, finds here its application: and, secondly, the Romans used to burnt tile for roofing purposes which required a quicker slope than the marble used by the Greeks on account of the power of suction of the former. It follows that these two causes brought about an obvious and rational alteration.

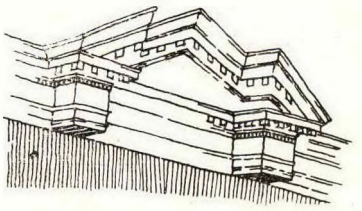
Owing to the exposed position of the pediment to the weather, it is among the most perishable portions of a building, consequently we are left with barely sufficient evidence to follow through as we should like the treatment adopted for the Basilican type of plan in elevation. How were the roofs over the aisles expressed on the facade of such buildings? Perhaps we may discover something in the Renaissance style, which owes its origin to Classic Rome. Taking, for example, the church of San Giorgio Maggiore at Venice, we find the centre of the composition represents a roof of two slopes brought to a central ridge, and the aisles on each side covered with a lean-to roof are expressed by half-pediments (Fig. 7). Hence we would argue that half-pediments have their origin in



SAN GIORGIO MAGGIORE, VENICE

FIG. 7

that form of plan which is composed of a central chamber or nave with side aisles so ararnged that the whole cannot be conveniently covered with a single roof. And this we know is the typical form of the Roman Basilica. Is it possible then that the Roman Basilicas possessed half-pediments as suggested in the above example. It is difficult to know with any certainty; and though there are existing examples of aisled Basilicas possessing neither a horizontal cornice or moulded coping and so suggesting no such treatment, *i.e.*, two half-pediments on each side of the central composition, yet, this arrangement is supported by a little evidence to be found in some of the temples and tombs of Petra (see Roberts' " Sketches in the Holy Land "). They are no doubt the work of Provincial Roman Governors under the Imperial system, and it seems probable that the half-pediment found in many of them is but the repetition of a use which was more or less common in Rome. At all events they suggest the probability that they were used in Rome during this period, and possibly earlier. How true, then, is the saying that " man seldom invents: he modifies."

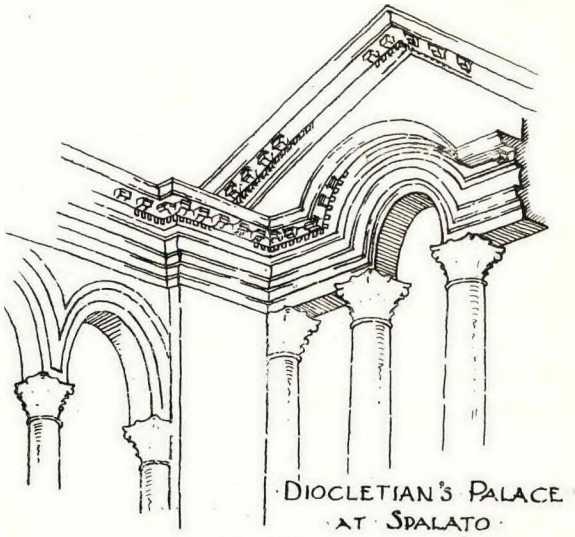


PEDIMENT FROM BAALBECK

FIG. 9.

There is no incongruity, however wild, but had its origin in some actual necessity, to supply some actual need.

This now brings us to another characteristic feature, that of the applied order, originated by the Romans. That is to say, they were the first to use



DIOCLETIAN'S PALACE AT SPALATO

FIG. 10.

the Greek columnar composition for decorating the face of a building without having a real share in its

construction, and with it they applied the pediment. Profiling the entablature round the applied order was the result of this deviation from the column's original purpose, and it was a form closely followed by later architects, when not only the continuity of the entablature was broken, but the pediment was made to follow (Fig. 9.).

In Diocletian's Palace at Spalato (Fig. 10), together with those examples at Damascus and Balbec, we find an interesting modification introduced by Roman architects. The piers and attached columns are dispensed with and the arch is placed direct on top of ordinary columns; the entablature is retained and bent round to form the arched head. This variation was followed in the Byzantine and later periods, and here too we see the germ of the pediment within a pediment.

Further, they are responsible for what is termed the attic storey, *i.e.*, raising the walls of a building to

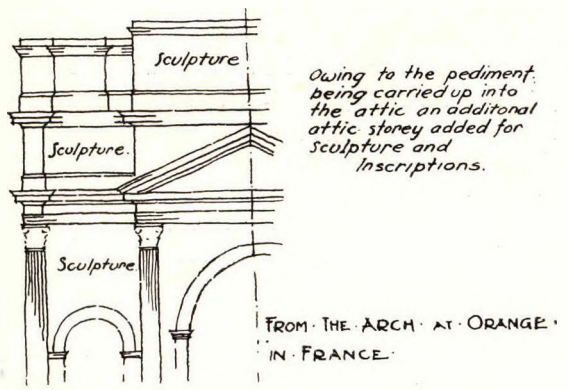



FIG. 8.

a line above, or horizontal with the apex of the pediment (Fig. 8). This arrangement, of course, makes the application of the pediment look absurd, but such treatment has by the number, splendour and repute of its examples attained a *succes d'estime* before which criticism stands abashed.

Having now briefly examined the classic periods of the pediment, any further reference to its more eccentric forms must be held over until some investigation has been made of the development of its twin sister, the Gable, through the Gothic period. The Pediment and the Gable became so often comingled in their distortions, that it is sometimes difficult to say of a particular example whether it is a pediment or a gable.

(To be continued.)

## BENONI TOWN HALL COMPETITION.

### ASSESSORS' AND UMPIRES' REPORTS.

Box 1049,
Johannesburg,
September 18th, 1918.

The Town Clerk,
Benoni.

DEAR SIR,

TOWN HALL COMPETITION.

I have the honour to present a separate report to my joint assessor owing to non-agreement as to first place.

I was not consulted as to conditions, schedule of accommodation, questions and answers to competitors with one exception that I was asked as to the length of time to allow for asking questions.

Twenty sets of designs were received, duly numbered by assessors, and the sealed envelopes handed to the Town Clerk.

Adjudication then proceeded, and main points I sought were utility and economy in plan and cost combined with elevations suitable for an important town.

To secure utility of plan certain main lines were looked for, viz., 1. The Town Hall portion should be entered separately from the Municipal Offices to allow of offices being shut off at night and avoid disturbance to business in day-time. 2. The Reading and Lending Room to be also capable of being shut off at night, and both apartments to be on same level and together. 3. The Main Treasury Office to be central and near main office entrance and be surrounded by its appurtenent offices.

The question of cost was an early one, and it must be frankly recognised that the building will cost over £40,000 at present rates, and that the competitors were set an impossible task, and the exceeding of the allotted amount should be no disqualification. In judging, however, the man who could give the best design for the least money would naturally score. Many good designs were put out owing to excessive cost.

*Disqualification of No.* 8.—Both assessors agreed originally that 4, 8 and 10 were the best three with 6 as a close runner-up. No. 8 must however, be disqualified for a very material departure from the schedule of accommodation which forms part of the conditions, where it states that "Town Hall and Stage-Hall to seat 1,500 persons with accommodation for, approximately, 1,200 on the ground floor and 300 in the gallery." There is only room in this town hall for 1,200 to 1,250 persons at most, or over 20 per cent. short. While it is not practicable to be too rigid on

accommodation competitor, assessor and Council must all keep reasonably to defined requirements. Over 20 per cent. is by no means a reasonable adherence and allows the competitor a most unwarranted advantage over his fellows who keep closer to the rules. The ground floor of this hall only provides 4.2 sq. ft. per person, which is barely more than actual sitting room without any allowance for passages which would require 25 per cent. more. It is true that desirable but non-essential and unasked for corridors have been given, but such additions are at the expense of defined requirements and a basic rule of competitions is infringed. My co-assessor treats this matter somewhat lightly, but local by-laws require nearly 4 sq. ft. per person actual seating, which proves my contention. To add the needed space to make this plan comply with defined requirements would cost nearly £3,000 unless the very points given unasked are sacrificed. The Council cannot afford corridors unless they will put up more money.

*Comparison of 8 and 10.*—Only in case my disqualification is over-ruled by the Council, I give hereunder the respective merits of 8, Mr. Sherwood's choice for first place and No. 10 my choice.

*Points of No. 10.*—Office and library block. Main entrance to offices somewhat narrow, but staircase hall widened out well behind. It is very similar to Johannesburg Town Hall main entrance opposite post office. Office planning generally very good. Treasury, good size and shape and gives more working room than 8 for roll clerks. Two side entrances to left and right of offices and a second stairs. The Town Engineer is shown grouped round the Treasury and the Town Clerk upstairs. These offices can be exchanged without any trouble. The W.C. block is well and centrally placed behind, but out of sight of main entrance, staircase in a sanitary block.

Reading and Lending Room (the latter very well shaped) are very well cross ventilated, better than No. 8 and also better side lighted. Access for public from one room to another better than 8 and under better supervision. For night use this plan is also superior.

The Council Chamber is the best placed of all the four designs under notice, being on the left wing, or quiet side of building with Committee rooms grouped near by. It has its own private corridor, and the public do not have to pass any of the three apartments. The public are brought into the Council Chamber from outside by separate way. This is excellent as in Johannesburg the office block is open to the public on Council nights. Upstairs good open corridors run round, and there are no flats and only a minimum of box gutters.

Supper Room. In half basement far ahead of No. 8, being good shape, well approached from hall and from street, and so can be used separately if desired. No. 8 could not be. Kitchen well placed for getting in food and drink from outside. It is not, however, in direct touch with main hall. We have the same arrangement in Johannesburg, but find no inconvenience as it is seldom the main hall is used for eating purposes.

The record and strong room well placed in basement under treasury. With one exception mentioned under. I much prefer this office and reading room block to No. 8.

*Town Hall Block.*—Cloak room similar and equal to No. 8 and no lost space from useless fron loggia, as in 8. Crush or front cross corridor far superior to 8, being 13 feet wide instead of only 7 feet as in No. 8.

The hall is a better shape for general use than 8. It has no side corridors, no doubt on account of cost restriction. It was the same in the Johannesburg Town Hall competition, where the necessary extra money was found to put them in. The exits are ample for safety, but not so numerous as in other designs.

Stage.—The stage is small, only 38 x 18, and on this point the conditions gave no size for the stage. This is unfortunate, as stages for scenic displays differ considerably. The Orpheum, Johannesburg, has only 30 x 20 which is the smallest I know. Between this and His Majesty's at 53 x 58 there are different sizes. If the money allotted had not tied down designers so and a size had been stated, I would view the matter more seriously, but where sizes are not given competitors have to sacrifice first what is not defined. Probably as no painting bridge is necessary a little space can be saved that way, but the stage should be built larger if erected for theatre work. This will mean extra money. This stage has no proper scene door. The dressing rooms are very good, well arranged together and better than 8 by far, and are similar to the Johannesburg Town Hall rooms. Upstairs, the gallery is well exited and has a roof garden which is a good feature and about equal to 8.

With the conditions in mind I have no hesitation all things considered in placing this a little ahead of 8 as regards the Town Hall block.

*Generally.*—With the exception of the following good points in No. 8 this plan is generally superior and should win easily. These points are good, but unnecessarily wide access to yards; the provision of a separate counter and stairs for Indians and Natives to offices, a good-sized stage got at expense of hall; the ground floor plan of offices superior a little, but 10 is better than 8 upstairs.

The only serious remodelling is the access to yard which, being one yard, is better than 8 and only requires one access, and the provision of larger stage, if money found for it.

*Points for No. 8.*—Reading and Lending room good, but partly top lit, and portion not side lit; cross ventilation not too good. Supervision arrangements not equal to 10, but ladies' periodical room provided, also librarian's room, although the Council specifically laid it down that no sub-divisions were to be made in this part. See question No. 11 and answer.

The office planning is very good; the Treasury Hall well placed amid well grouped offices. Back counter for coloureds—a fine introduction—as is also the back staircase for labourers and others going to the Town Engineer. Areas not so good for back yard purposes, too small and divided into two and not connected, but each is provided with a wide entrance way which is a very practical feature. One entrance to one yard would be better for locking up purposes and cross access. The main office entrance is good, perhaps too spacious for money allotted, like many others.

*1st Floor.*—On 1st floor the public will have to go up some stairs, as Councillors to Council Chamber in which no proper public place is allotted. Public have to pass Committee rooms to reach certain offices; not so good as No. 10 in this respect. The office grouping is well opened out, but the large inner areas being roofed with flats, or if box gutters they will be troublesome. In the Johannesburg Town Hall, great trouble is experienced from leaky flat roofs. Apart from the library, the ground floor part of the offices and areas scores over No. 10, but I prefer the 1st floor part of the latter to this, as it is simple and more straightforward. The supper room is the most hopeless in the competition, and is about 100 ft. x 24 ft., has a long and bad approach, and is not capable of separate use. It infringes several important safety and ventilation Bye-laws, and must be entirely remodelled. It is also almost entirely out of keeping with, in most respects, a clever plan. Its kitchen is usefully placed, and could also serve the Town Hall if ever needed. Mr. Sherwood quotes Johannesburg basements, but I know of none like this. It is only fit for a cold storage chamber. The Town Hall portion is well grouped except for a useless loggia in the front entrance. It scores on its large stage, but as already pointed out, the main hall is far too small, but it is a good shape. The corridors are desirable but not essential, and, of course, raises the cost at that part above the other plans, owing to the extra walls. The dressing rooms are placed on separate sides of stage, not as good as in No. 10.

The area of this whole plan and of No. 10 are similar, but inspection will show that this has more walls, which will tell on cost. It has a good, but less impressive elevation than No. 10. This design is in the main a very good one, and if not disqualified, I would place it third, mainly owing to the very bad supper room.

*Points of No. 4.*—I will just enumerate the points shortly. Supper room, one of the best, and is on ground floor. Library excellently arranged. Treasury main office not very good. Kitchen good, upstairs. Access to internal yard given. Entrance hall fine, but digs into offices adjacent. Town Clerk and offices on 1st floor away from Treasury, and not easily interchangeable. Corridor light poor in parts. Town hall rather too long. Stage on small side, 33 ft. x 24 ft.; no W.C.'s in ladies' or gent's cloak rooms. Generally a well disposed plan. I would place this second.

*No. 6.*—I place this third if No. 8 entirely disqualified. If No. 8 is only partly disqualified, then it would be placed third, *and not* No. 6,, which would drop out.

This plan has points of most artistic merit. Its supper room would be a most beautiful apartment, fit for any club, and on first floor. Library accommodation very good. Elevation is the best of all the designs, and the perspective beautifully executed. Main treasury hall fine. It also has an internal Council Chamber a good point. Stage rather small and hall long. The office entrance hall is far away the best.

*Placing of Designs.*—My award is therefore:—

First, No. 10; second, No. 4; third, No. 6; but if No. 8 is not disqualified, I would place it third instead of No. 6.

*Umpire.*—Owing to disagreement on first place, the Town Clerk informed me that the Council had appointed Mr. E. Goodman, Chairman of the Work's Committee, as umpire. To save time, I therefore laid my case before him, and wish to thank him for his fair attitude throughout. He heard both assessors together in person, and I am forwarding this report to him for his final finding.

I think, however, that it is only right to say that an umpire appointed in this way is not the correct procedure. The only awards that the Council can accept or reject are those of the two assessors. The umpire has no "locus standi" under the conditions, and it is useless at this stage to invite the consent of the competitors who are parties in the contract.

I think, therefore, the proper thing is for the Council under Clause I of the conditions to proceed to a direct vote on the assessors' separate reports, as follows:—

1st—Should No. 8 be disqualified?

2nd—If not, should No. 8 or No. 10 be placed first?

If No. 10 is placed first, No. 8 not being disqualified, should No. 8 or No. 4 be second? The loser then becoming third, and No. 6 dropping out?

If No. 8 is disqualified, both assessors agree to the following order:—

First Prize—No. 10.

Second Prize—No. 4.

Third Prize—No. 6.

And no vote is needed further than the disqualification.

When this is done, the envelopes can be opened and the names then announced.

In conclusion, it should be observed that competitors do not include cost of large tower in present schemes.

(Sgd.) EDWARD H. WAUGH,
A.R.I.B.A., M.S.A.,
*Joint Assessor.*

Johannesburg,
24th September, 1918.

DEAR SIR,

I would like to add to my report on competition for Town Hall that if any but a very shallow stage is required the Town Hall floor will have to be made with a generous slope, and if this is done the hall will not be of use for dances or social functions. The reason is that the front edge of the stage will prevent persons on a level floor seeing anything but the top of the actors unless they happen to be at the front of the stage. The conditions, therefore, asking for an ordinary town hall for usual civic purposes is not compatible with a large theatre stage, and your Council will have to choose which they wish to have. Under these circumstances, a shallow stage has more wisdom than perhaps at first sight appears.

Yours faithfully,
(Sgd.) EDWARD H. WAUGH,
*Co-Assessor.*

Benoni,
9th September, 1918.

DEAR MR. GOODMAN,

Herewith I beg to hand you my award on the various designs submitted.

The assessors, Messrs. Waugh and Sherwood, have agreed on three designs, but differ as to the order of merit. My award is as follows:—

1.—Design No. 8.
2.—Design No. 10.
3.—Design No. 4.

My reasons for placing the designs in the above order are as follows:—

Each design must be adjudicated upon as submitted and not on its possibilities, and whilst not objecting to minor alterations, such as putting in an extra door, or some such small rearrangement to give a better plan, yet I do object, when assessing to consider in any design the question of structural alterations to remodel so as to give a more satisfactory plan, or provide for accommodation which has been omitted, as I consider that each design as submitted presents, with the assistance of the information given by the Council to each competitor, the author's views as regards the necessary requirements for a provincial town, and, therefore, my award is made to the design which, as it stands, undoubtedly gives the best arrangement of the required accommodation.

My reasons for supporting Design No. 8, and my objections to Designs Nos. 10 and 4 are as follows:—

*Entrances—Offices.*—Design No. 4 has a main entrance with a separate entrance at each end, but still congests all the traffic from the first floor on to the main entrance.

Design No. 8 presents separate entrances on the sides for the officials, and thus avoids congesting all the traffic on the main entrance. Separate entrances are provided for Natives and Indians to the Main Treasury office, and also a subsidiary entrance from the front to this department. The main entrance has a dignified appearance. The entrance arrangements of this design are a striking feature.

Design No. 10 has a main entrance, and one entrance for officials at the corner. The main entrance is very narrow and is lacking in dignity in its treatment.

*Open Areas.*—Areas are provided on all three designs. Nos. 4 and 10 provide areas to which there is no access except from the main entrance to the building or the Town Hall, and, therefore, for utility purposes, they are useless.

Design No. 8 provides open areas with direct access from each side, therefore they can be used for various purposes, such as cycles, cars, etc.—a desirable arrangement to a building which is surrounded by gardens.

*Latrines and Conveniences.*—Design No. 4 has its latrine accommodation in close proximity to the main entrance. All the officials using these latrines must go to the main entrance hall. No. latrine accommodation whatsoever is provided to the main hall. According to Article 21, Section 2. of the Benoni Municipal Bye-Laws, every public building, bioscope or theatre, is compelled to provide latrine accommodation. This

omission, to my mind, condemns Design No. 4 entirely. It is an impossible idea to have a hall to accommodate 1,500 people, and no latrine accommodation. It may be argued that the public could use the latrine accommodation provided for the officials, but I would point out that the only means of access that the 300 persons in the gallery would have to these latrines would be through the main Town Hall.

Design No. 8 provides adequate latrine accommodation for the main hall and for the officials, and those for the latter are placed in such a position that a section can be used by visitors to the Public Library—an ideal arrangement.

*Main Town Hall.*—Design No. 4 provides a long narrow hall of bad shape. It provides exits from the hall on the sides, but those in Cranbourne Avenue open direct on to the street.

Design No. 10 presents a hall of adequate size and good appearance. It provides two exits at the stage end, but no exits on the sides, therefore, in cases of dances and other functions, its utility purposes are considerably reduced.

Design No. 8 provides the best shaped public hall of the three designs under discussion, especially for theatrical and concert purposes, and although the hall will accommodate only from 1,150 to 1,400 persons, I am not prepared to condemn it on these grounds, as a competitor must be allowed certain latitudes either way. Exits are provided from the hall to the corridor on one side, to the main entrance, and also to the loggia on the Cranbourne Avenue side. For dances and concert purposes, this loggia is a commendable feature, as during intervals it provides promenade accommodation, with privacy, for either dancers or patrons, and avoids congesting all the traffic on the main entrance.

*Stage.*—The stage accommodation provided in Designs Nos. 4 and 10 is absolutely inadequate, as regards size, as anybody with any theatrical experience must admit. By reference to both these designs, it will be seen that it would be impossible to get ordinary scenery on either of the stages, and to make the stages of either of these designs suitable, the whole plan of this part of the hall would have to be altered.

Design No. 8 provides a modern up-to-date stage of the correct size. Provision is made for handling scenery, and the usual requirements.

*Supper Room.*—The supper room as shown in Design No. 4 is in the best position. Designs Nos. 8 and 10 provide supper rooms in the basement, but in all the designs I would point out that the rooms are spoilt by having pillars in the centre, and although the supper room in Design No. 4 is in the best position, yet as a public hall, it would be spoilt for dancing and other functions by the six columns as shown on the plan. Personally, I see no objection to having the supper room in the basement. Taking into consideration the fact that most of the public restaurants and cafes in Johannesburg are in basements, I am of opinion that no exception can be taken to the supper room of the Town Hall being in the basement, as it will not be used daily but only on rare occasions.

Mr. Waugh also agrees with me on this point. The kitchen in Design No. 4 is placed upstairs—not a good position. The kitchen in Design No. 10 can be used for the supper room only. The kitchen in Design No. 8 is placed in such a position that it can be used either for functions in the supper room or the Town Hall.

*Offices.*—Design No. 4 provided a main Treasury Office near the public entrance, and the public would have to stand in the corridor while doing their business. This is not a good arrangement, besides which it would mean that whites and blacks would have to mix indiscriminately. The Town Clerk is not placed in close proximity to this department, his office being on the first floor.

Design No. 8, as admitted by Mr. Waugh, provides the best office accommodation, and presents, for utility purposes, the best plan by far. The main Treasury Office has three distinct entrances to it, and a separate entrance and accommodation is provided for Natives and Indians, thus avoiding the objectionable mixing of whites and blacks.

In Design No. 10 the hall is badly situated, and here again it would mean that whites and blacks would have to mix indiscriminately. The office of the Town Clerk is also placed on the first floor.

The arrangement before referred to in Design No. 8 is a striking feature of the design, and must have great consideration.

The strong room on Design No. 4 is placed upstairs—not an ideal position.

In Designs Nos. 8 and 10 the strong rooms are in the basement.

To adapt Designs Nos. 4 and 10 to our local requirements, they would have to be remodelled throughout.

*Library.*—The library accommodation in Design No. 8 is superior to either of the other designs.

The only objection to Design No. 4 in this respect is that on a windy day the main doors being open, free access would be given to the wind.

*Elevations.*—The front elevations to Designs Nos. 4 and 8 are of equal merit.

The elevation to the whole of Cranbourne Avenue on Design No. 8 is better than that of No. 10, and is improved by the loggia which does away with the exit doors opening direct on to the street.

*Cost.*—The cost of the three designs selected by the assessors may be considered to be the same. This point has been agreed upon by Mr. Waugh and myself.

*General.*—The author of Design No. 8 appears to have given the requirements of a provincial town serious consideration, and has introduced many features into his design which are lacking in either of the others. To my mind, as a complete scheme No. 8 stands out, as regards the requirements of a provincial town, far ahead of the others, and for these reasons I strongly support No. 8. Scheme No. 8 would meet the local requirements completely as it stands, with the only minor alteration of two doors and covered steps being provided from the supper room to the open areas.

Designs 4 and 10 would require, as regards offices, stage and open areas, to be remodelled throughout.

It would be possible to proceed with either of the blocks shown on Design No. 8 separately—that is, the offices could be erected separately or the Town Hall block.

(Signed.) H. E. SHERWOOD.

## REPORT OF A SPECIAL MEETING OF THE COUNCIL-IN-COMMITTEE—(Continued).

It will be observed from the foregoing reports that the adjudicators disagreed as to the order in which the awards should be made, Mr. Waugh recommending that the first prize should be given to the author of drawing No. 10, the second prize to the author of drawing No. 6, whilst Mr. Sherwood recommended the first place should be given to drawing No. 8, the second place to drawing No. 10 and the third place to drawing No. 4.

The assessors being unable to agree on the order in which the premiums should be awarded, Mr. E. Goodman, Chairman of the Public Health and Works' Committee, was called upon to adjudicate upon the three drawings selected by them as being of outstanding merit. Mr. Goodman submitted his views on the matter in a report to the Mayor on the 11th September, and, in a subsequent letter to the Mayor on the 19th idem, expressed the view that it would be better, having regard to the fact that his acting as umpire was objected to by one of the assessors, for the Council to decide upon the points in dispute. This course we adopted, and, in order that the fullest consideration should be given to drawings Nos. 8 and 10 upon which the assessars disagreed, we decided to ask the Association of Transvaal Architects to nominate a qualified architect to make a final award as to which of the two drawings should receive the first premium. Mr. Goodman's report and letter to the Mayor are attached hereto.

*We Recommend:*

1.—That our action in not accepting the awards of the assessors, in terms of Clause 1 of the Conditions of Competition, be approved and confirmed.

2.—That our action in requesting the Association of Transvaal Architects to nominate a qualified architect to make a final award as to which of the drawings numbered 8 and 10 should receive the first premium, be approved and confirmed.

I. KUPER, *Chairman.*

25.9.18.

Benoni,

11th September, 1918

His Worship the Mayor,

Benoni.

Dear Sir,

BENONI TOWN HALL COMPETITION.

I have carefully considered the awards of the assessors in the above competition. I regret that the assessors have not been able to come to a decision as to the order in which the three designs selected for prizes should be placed, and have found it necessary to call upon me as umpire. I have carefully weighed the arguments of the assessors for and against each design, and, having carefully studied the three designs, also the "Conditions of Competition," I hope to give a fair and impartial decision, accepting that plan, which, as a whole, in my opinion, best meets the requirements of the Municipality.

I agree with the assessors that the plans should be taken just as they stand, "with their virtues and faults."

I should like to divide the scheme for consideration into three sections, placed in what in my opinion is the order of their relative importance.

(a) The Municipal Office block, including the Library and Reading Room.

(b) The Town Hall block.

(c) The Supper Room.

(a) *Municipal Block.*—The assessors agree that No. 8 is the best in this respect. Mr. Waugh states "it wins by a neck." Mr. Sherwood is of opinion that it provides the best office accommodation" and "presents the best plan by far."

The arrangement of this block seems to me to have been given the most careful consideration, the various departments are well grouped, means of access are good, sanitary arrangements are very good, and, therefore, I agree with the assessors. My second would be No. 4.

(b) *Town Hall.*— Here there is a most important difference of opinion between the assessors. Mr. Waugh states that No. 8 (which is favoured by Mr. Sherwood) is 25 per cent. below the necessary seating accommodation, and considers that this, in term of the Rules for Competition of the R.I.B.A., is a most serious objection. The Conditions for Competition call for " Hall to seat 1,500 persons, with accommodation for approximately 1,200 on ground floor and 300 in Gallery." I consider the word " approximately " here refers to the distribution between the ground floor and the gallery, and not to the total, which appears to me to have been definitely stated as 1,500. Therefore, from the point of view of Mr. Waugh, this is undoubtedly a serious objection.

Mr. Sherwood's objects to No. 4, principally on the grounds of bad shape, exits direct on to street, inadequate stage accommodation,also to lack of sanitary accommodation.

Mr. Sherwood also objects to the inadequate stage accommodation and insufficient exits of No. 10, while agreeing that the design of hall is very good. He considers that No. 8 is " the best shaped Public Hall " under consideration, and " although the hall will accommodate only 1,350 to 1,400 persons, I am not prepared to condemn it on these grounds."

I am of opinion that this section should be considered as a whole, *i.e.*, hall, gallery, stage, dressing rooms, cloak rooms, etc., and I feel that the expressed desire of the Town Council must be considered by me, viz., that a prominent feature of the design must be a stage suitable for the production of any opera or play, with all the necessary adjuncts. I think that what is required is not only a large hall capable of seating a given number of people, but a hall that can be most conveniently applied to the many and varied purposes for which such a hall in Benoni would be used. Thus ample cloak room accommodation, promenades, etc., are very desirable.

As there seems to be considerable difference of opinion between he assessors as to the seating accommodation, I have taken out the superficial area of the hall and gallery together, and I find that No. 8 is 17 per cent. below No. 10 and 14 pere cent. below No. 4. I have also taken out the area of the whole Town Hall block as apart from the office block, in each case, and I find that the respective areas are, No. 10, 11,088 sq. ft.; No. 4, 11,160 sq. ft; No. 8, 12,168 sq. ft. Thus No. 8 provides the greatest amount of space for the block as a whole, and it appears as though Nos. 4 and 10 have secured the larger seating accommodation at the expense of the stage and cloak rooms, and those other conveniences which I have stated are desirable. In this connection I may say that I think the loggia of No. 8 is a very desirable feature. Therefore, while fully recognising Mr. Waugh's objection as a sound one, yet in view of the figures quoted above, I feel it is not quite so important as to counter balance those advantages which this design, I think he will agree, does possess, and therefore from the utility point of view, I must decide on palcing No. 8 first in this section also. My second would be No. 10.

(c) *Supper Room.*—Here also there is a difference of opinion. I would first of all refer to the fact that, although it does not appear to have been mentioned in the " Conditions of Competition," the Town Council did, by resolution, agree that the supper room could be placed in the basement.

I quite agree with Mr. Waugh that the room is " ill-shaped," and the approach is not too good. The basement supper room of No. 10 is better shaped and ventilated than that of No. 8, while, of course, the ground floor room of No. 4 is much superior to both.

Judging this section alone, I should, of course, place No. 4 first, No. 10 second, No. 8 third.

However, I do not consider that the supper room is a sufficiently important feature to warrant placing either No. 10 or No. 4 design in front of No. 8, which in the two larger sections of the scheme, is so decidedly the better in my opinion.

My award is, therefore, 1st, No. 8; 2nd, No. 10; 3rd, No. 4.

Yours faithfully,
(Sgd.) E. GOODMAN.

Benoni,
19th September, 1918.

His Worship the Mayor,
Benoni.

Dear Sir,

TOWN HALL COMPETITION.

I have read the report of Mr. Waugh, one of the assessors in the above competition, to the Town Clerk, a copy of which has been sent to me. I gave very careful consideration to the first report of Mr. Waugh and also to that of his co-assessor, Mr. Sherwood, before drafting the report which I have already submitted to your Worship, and I see no reason to alter the opinions expressed therein.

I must also point out that on meeting the assessors on September 6th, both fully explained their views to me. I was not prepared to give a decision without further thought, but I understood that both assessors would have been prepared to accept a decision on the spot. However, I requested both to send their awards to me in writing, with their reasons, and it was definitely and clearly understood that after consideration of those reports I should come to a decision which would be accepted as final. Mr. Waugh distinctly stated in that award "the *final* of my placing is therefore 10, 4, 8." How, therefore, can he now disqualify No. 8? Regarding Mr. Waugh's remarks re "Umpire" on page 4, I would say that no objection, so far as I am aware, was raised by Mr. Waugh to the Council's appointment of myself as umpire at the time I was called in.

It was only after spending a great deal of time in consideration of the plans and assessors' awards, that I found that the fact that an umpire had been appointed had not been stated in the Conditions of Competition, and as the position appeared to have been satisfactory to the assessors, I proceeded with the work.

However, under the circumstances I think the better course will be for the Council itself to decide upon the points in dispute as suggested by Mr. Waugh.

Yours faithfully,

(Sgd.) E. GOODMAN.

## REPORT OF A SPECIAL MEETING OF THE COUNCIL-IN-COMMITTEE.

### COMPETITIVE DESIGNS: TOWN HALL.

We beg to report having received the following letter from the Association of Transvaal Arcitects:

Johannesburg,

27th September, 1918.

DEAR SIR,

Yourletter of yesterday's date asking that this Association should nominate some person to adjudicate upon two sets of designs which the assessors have not been able to decide should be placed first and second, was considered by my Council last night, and I am directed to inform you that it was unanimously resolved that Mr. W. H. Stucke, M.P.C., be nominated for the position.

The Council's decision having been communicated to and accepted by Mr. Stucke, I communicated the information to you this afternoon by telephone, also stating that Mr. Stucke would be prepared to visit Benoni on Monday next, the 30th instant, for this purpose, if the date is suitable.

Will you kindly telephone me first thing to-morrow Saturday morning, if this arrangement meets with your approval.

(Sgd.) M. K. CARPENTER,
*Registrar.*

The Registrar of the Association of Transvaal Architects was informed that the arrangement made was satisfactory, and Mr. Stucke attended at the Municipal Offices on Monday, the 30th September, and examined the drawings numbered 8 and 10.

Mr. Stucke's report is as follows:—

STUCKE & HARRISON,
Architects.

31, S.A. Mutual Buildings,
Harrison Street,
Johannesburg,
October 2nd, 1918.

THE TOWN CLERK,
Benoni.

DEAR SIR,

*re* COMPETITION FOR NEW TOWN HALL AT BENONI.

I have examined the designs marked "8" and "10," and also the Conditions of the Competition, the answers to questions and the reports compiled by the authors of the two above-mentioned designs, and I herewith beg to state that the design marked "10" should be placed first.

It is true that this design has some disadvantages, for instance, the stage is too small and champed for theatrical performances, and there would not be room for the wing sand scenery as at present planned. The ingress and egress arrangements to the great hall are not laid out on a liberal scale, and considering the size of the hall are insufficient. Adequate provision for fire exits has been omitted. The counter to the main treasury office does not provide much space for the public. It might be better if it were placed the long way of the room, and the position of this office is not so direct to strangers entering the building as is the case in the arrangement shown in design "8."

This design "10" however is free from certain disadvantages hereinafter mentioned in connection with design "8." In design No. "10" the supper room is well ventilated, and the position of the main W.C. block is good. The treatment of the exterior is broad and refined, and although not ornate, is nevertheless not without dignity. Design No. "10" is more economical than design No. "8."

In design No. "8" the ingress and egress to the great hall are better than in the other design, being

more spacious and better lighted, also the position of the Council Chamber is perhaps an improvement, being on the north side, and also in direct communication with the Mayor's parlour.

I find, however, that the lighting and ventilation to the supper room is very inefficient, although the feature styled the atrium would assist the ventilation, it would convey the vitiated air direct into the centre of the main office block. Under any circumstances, I think it would be quite wrong to construct a large supper room in such a confined position without any direct light to the open air, except in a small portion of one side only, and that directed into the two interior courts, from a level situated more or less below the surface of such courts. The direct access to this supper room from the side of the main hall is a good idea, but the approach and the termination of the two flights of stairs leading to and from the supper room is very cramped.

The main staircase will be largely spoilt by the two corridors which give access from the first floor level of the office block to the atrium and thence to the Mayor's box, because these corridors come immediately over the two sides flights of the main stair, and although headroom would be provided there would not be that necessary to a spacious effect.

The Town Hall will scarcely accommodate the 1,200 people asked for.

The lavatory and W.C. block on the ground floor which serves the offices, also the W.C. and urinals to the gentlemen's cloak room and the W.C.'s which serve the lady artists, are all lighted and ventilated into the covered ways leading from the east and west sides of the building to the interior courts. This cannot be looked upon as a very satisfactory arrangement. The W.C. and lavatory block which serves the first floor


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offices are not placed over the W.C. and lavatory block which serves the ground floor offices as stated in the author's report.

There is no direct way from the main Treasurer's office to the record and strong rooms, and this office derives most light and ventilation from the top lights, the only side light being introduced to a small portion of the room from the interior court across a 10 ft. 0 in. overhang.

I would like to take this opportunity of congratulating the Council on receiving two designs which, on the whole, possess considerable merit.

I herewith return conditions of competition, the list of questions and answers, and the reports prepared by the authors of designs 8 and 10.

Yours faithfully,

(Sgd.) W. H. STUCKE.

Mr. Stucke having stated that the drawing numbered 10 should be placed first, we agreed to abide by his decision, and, further, agreed to award the third prize to design No. 4. The sealed envelopes having been opened, we found the authors of designs Nos. 10, 8 and 4 to be:—

No. 10.—Messrs. Hawke & McKinlay, Cape Town.

No. 8.—Mr. Frank Parker, Benoni, and Mr. Arthur A. Ritchie McKinlay, Durban.

No. 4.—Messrs. Cowin & Powers, Johannesburg.

The names of the competitors are as follows:—

1.—C. Hosking, Belgravia, Johannesburg.

2.—F. Emley & G. Moerdijk.

3.—A. W. Reid & Delbridge, Johannesburg.

4.—Cowin & Powers, Johannesburg.

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6.—H. G. Veale, Johannesburg.

7.—C. J. Wickee, Benoni.

8.—Frank Parker & Arthur A. Ritchie McKinlay, Benoni and Durban respectively.

9.—J. Perry, Cape Town.

10.—Hawke & McKinlay, Cape Town.

11.—Henderson & Bowie, Benoni.

12.—Henderson & Bowie, Benoni.

13.—P. E. Treeby, Johannesburg.

14.—A. E. Till, Johannesburg.

15.—E. L. Keenor, Johannesburg.

16.—P. Hofman, Pretoria.

17.—Howden & Stewart, Johannesburg.

18.—Chick & Bartholomew, Durban.

19.—Ing & Jackson, Durban.

20.—Cook & Ralston, Johannesburg.

REPORT OF A SPECIAL MEETING OF THE COUNCIL-IN-COMMITTE—(Continued).

*We Recommend*:—

1. That our action in awarding the premiums, as follows, be approved and confirmed.

First Premium of £250.—Messrs. Hawke & McKinlay, Cape Town.

Second Premium of £150.—Mr. Frank Parker, Benoni, and Mr. Arthur A. Ritchie McKinlay, Durban, in equal shares.

Third Premium of £100.—Messrs. Cowin & Powers, Johannesburg.

2. That arrangements be made for the public exhibition of the designs received.

I. KUPER, *Chairman*

4.10.18.

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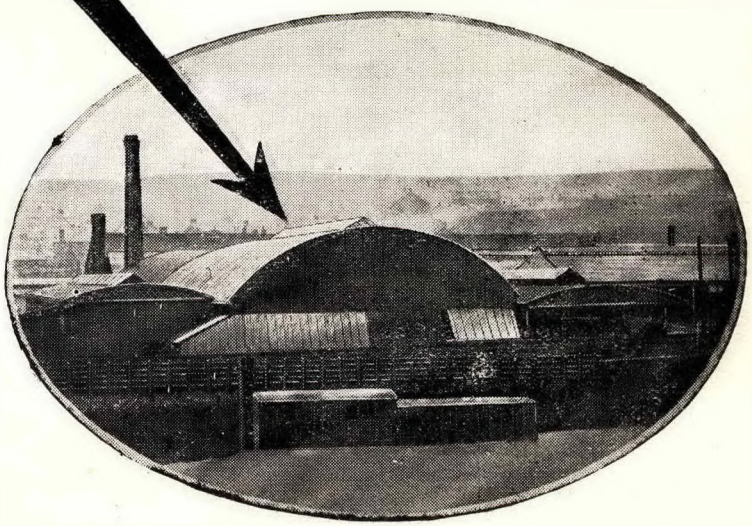
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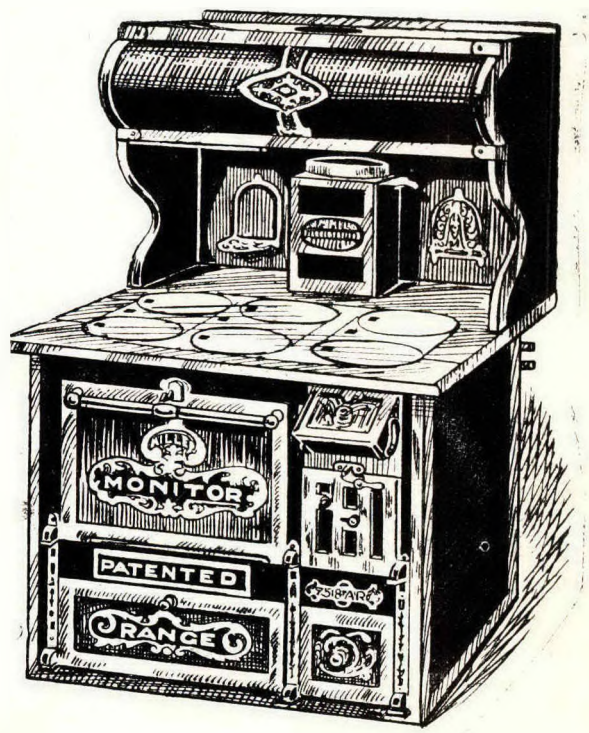
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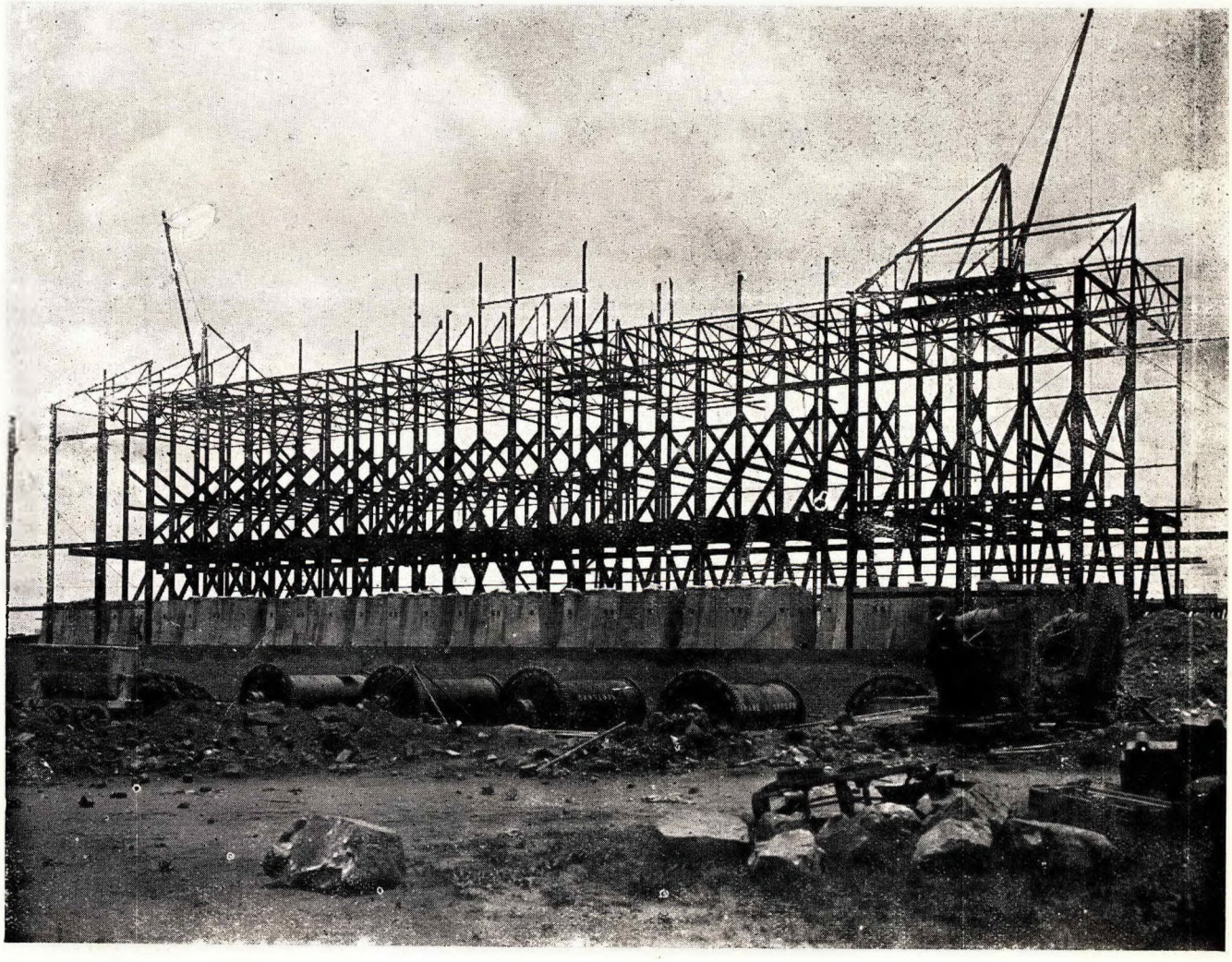
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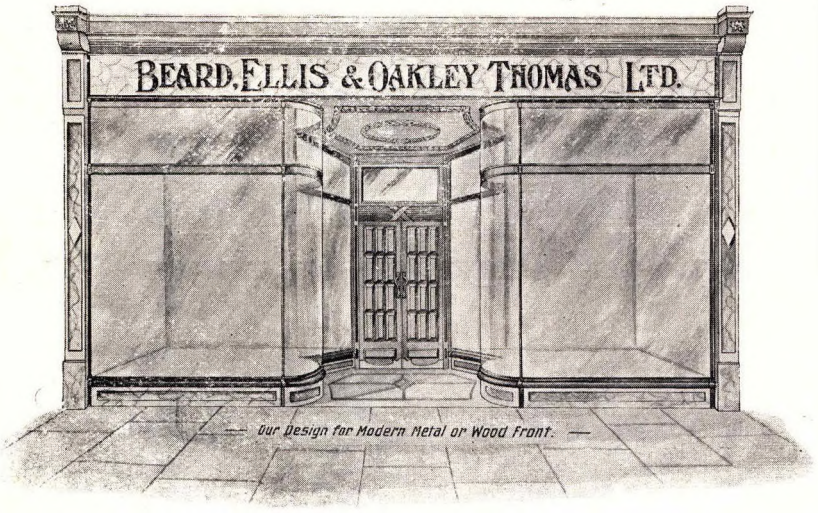
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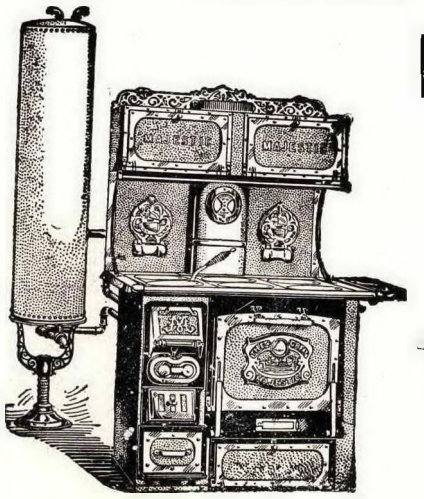
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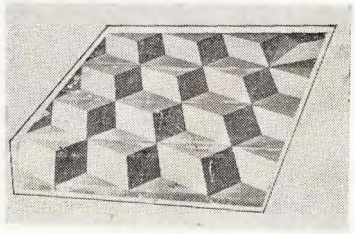
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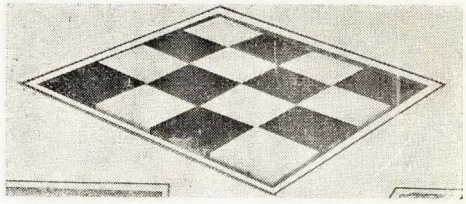
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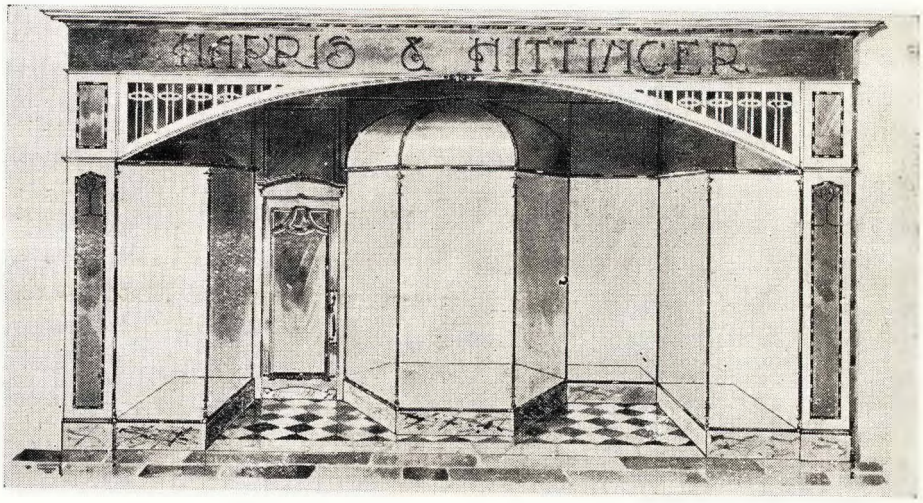
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