



BUILDING.



THE JOURNAL OF THE ASSOCIATION OF TRANSVAAL ARCHITECTS.

No. 7. Vol. II.

SEPTEMBER, 1917.

[ISSUED QUARTERLY] Price 1/-

EDITORIAL NOTICE

The Editor will be glad to consider any MSS., Photographs or Sketches submitted to him but they should be accompanied by stamped addressed envelopes for return if unsuitable. In case of loss or injury he cannot hold himself responsible for MSS., Photographs or Sketches, and publication in the Journal can alone be taken as evidence of acceptance. The name and address of the owner should be placed on the back of all Pictures and MSS.

The Association does not hold itself responsible for the opinions expressed by individual contributors.

This Journal may be obtained from Central News Agency throughout South Africa or from the Business Manager, Mr. D. Macdonald Sinclair, Sauer's Buildings, Johannesburg, Price 1/- or 1s. 2d. posted. Annual subscription 4/- or 4s. 6d. posted.

CONTENTS.

A National Neglect	...	...	...	35	Review of Architectural Journals	...	...	...	47
In Mesopotamia	...	...	...	38	Architects, Official and Practising	...	...	...	48
Architecture in Railway Station Building in S.A.	...	...	...	39	Union Trade Returns	...	...	...	49
Bramante	...	...	...	40	What the Association is doing	...	...	...	50
The Great Edison Fire	...	...	...	41	The River-Side Hotel Venteniging	...	...	...	50
Public Health Notes	...	...	...	43	News and Notes	...	...	...	53
A Big Building Scheme	...	...	...	44	Legal	...	...	...	54
Valuation Notes	...	...	...	45	To Our Readers	...	...	...	54
Wesleyan Central Hall	...	...	...	45	Our Illustrations	...	...	...	54
Obituary	...	...	...	46	Our Book-Shelf	...	...	...	54

A NATIONAL NEGLECT.

BY D. M. BURTON.

We know that some men are blind for all time, while all men may be blind at some time, but I do not wish to believe that all men in South Africa will remain blind for all time.

But, can one be blamed for wondering whether the latter is possible when we observe the many groping around for methods to advance the industries of this wonderful land and missing one of the greatest opportunities ever given.

Numerous associations and societies have been formed from

time to time for the purpose of inducing our people to utilise South African Products to a greater extent. Enormous efforts have been put forth at various times to bring before the public notice the desirability of producing some article or food which we have been in the habit of importing to the extent of a hundred thousand pounds or so per annum. All this effort has been useful, but have we not thus far missed the opportunity of establishing on a sound footing one of the greatest of all industries, an industry which would give employment to very many thousands and save the importation of hundreds of thousands of pounds worth of material.

Every year the country is spending huge sums in attempts to solve the "poor white" problem, and yet here to hand lies one of the simplest solutions of the difficulty, and every penny spent on this solution will go directly to increase the wealth of the Union, enormously add to its industrial activity, and provide an economical means of supplying that which is an

A National Neglect.—CONTINUED.

essential in every other industrial effort that we can turn our hands to.

The Governments of the country have spent and are ever spending millions of pounds upon railway extensions and expansion; yet they have misused or overlooked—except to an almost immaterial extent—one of the finest provisions of tonnage for their trucks and one of the grandest opportunities for opening up to the production of wealth much land, which at present is hardly productive at all, but which might become—and in but a comparatively short while—one of the finest assets which the country could possess.

Articles galore have been written on the subject, but they have remained unread by our legislators or have merely received the scant passing attention of some member of the Government or Parliament.

Speeches have been addressed to various bodies on this all important theme, but the utterances of the very few wise ones have fallen on deaf ears.

I refer to the subject of Afforestation. When I use the word I feel that I cannot justly include under the term the puny efforts thus far put forth by the Government, nor those private essays at the production of what has been sarcastically referred to as the "provision of firewood."

Understand, I do not wish to belittle the many excellent attempts made to provide a sufficiency of mining props for use on the Rand, but in this short article I wish to deal more especially with the provision of timber in its widest sense.

I realise, and the Government should realise, that what is wanted is the production of the more valuable timber, and especially timber for building purposes, railway sleepers, furniture, and similar objects. Of course, mining props must also be provided for, since the demand for such has most certainly not been on the decrease and the output at present is insufficient to meet the demand.

Let us look for a while at some of the statements and figures which have been uttered by leading men of the world or given in the statistics of this and other countries.

The Prime Minister of Great Britain, speaking on the 23rd of February last on the question of tonnage, pointed out that the article of greatest bulk was timber, which was imported during the preceding year into that country to the extent of 6,400,000 tons, of which slightly under one-third represented pit props, while the bulk of the remainder was used for military purposes there and in France.

He went on to state that certain suggestions had been made to avoid at least a great part of this heavy importation. It had been pointed out that this end might be gained by the adoption of three methods, the first being economy in the use of timber.

The second suggestion was to make the Army in France self-supporting in that direction. The French Government had already placed two forests at British disposal, and it would be necessary to ask them to make a still greater sacrifice of their beautiful forests.

The third proposal involved the development of Home supplies so as to make the country self-supporting during the war with regard to timber supplies. He was not sure but that they had practically all the timber required during the duration of the war provided they could find the necessary labour for cut-

ting and transporting it. There was a considerable number of workmen and foresters on large estates who could be asked to volunteer, but they would also need thousands of unskilled workmen as well.

We thus realise the important part timber is playing in this war, but do we at the same time realise the general devastation of timber that is proceeding.

In addition to the forests which are being cut down in France, Russia, England, Germany, Austria and elsewhere to provide timber for war purposes, valuable timber is being daily destroyed during the progress of this titanic conflict for military reasons on one or other side. We read of some wood that has been wiped off the map by shot and shell during the terrific bombardments of the opposing armies. We read of Russian pine forests set ablaze. Do we realise that in France and Russia hundreds of thousands of cubic feet of most valuable timber are being lost to mankind?

From the remarks of the Prime Minister which I have quoted it would seem that if this war lasts much longer practically all the mature trees in England will fall to the forester's axe. Will this not mean that after peace Great Britain will be importing enormous quantities of timber?

For years France, Belgium and Russia will be absorbing vast quantities of timber to make good the devastation of the war. Timber is not going to return to pre-war prices for many years after the end of this war, and we, in this country, may rest assured that the price of imported timber will remain very high for a long while to come.

The rapid progress of civilisation and the demands of the ever-increasing population of the world have already largely diminished the area of forest in many countries, and especially in the New World, where timber has played a more important part in buildings than in Europe. Already these countries have realised the grave danger which was threatened by the denudation of the forests and are making some provision for future requirements. Up to a few years ago the forests of Canada were being indiscriminately cut down, in some cases to provide timber for sale, in others merely to enable farmers to clear ground for agricultural purposes. Canada was forced to make laws to stop this wholesale destruction, and now no one may cut down a tree without replacing it by another.

From the experience and practice of other countries it will be seen that afforestation is no matter for purely private enterprise. It is essentially a subject for the Government of a country, though a really progressive and paternal Government will legislate in such manner that not only will it take upon itself the temporary burden of direct afforestation, but will also assist in the promotion of private efforts in the same direction.

I propose to offer some advice on this subject, and will have to give some statistical information relative to the Union, some of which will cause considerable surprise to those who have not studied the subject.

Before doing so, however, let me say that I am quite well aware that timber forests are not created in a day, and that in Russia and Sweden it is estimated that quite fifty years are required for the mature growth of a sound timber proposition. In this country—which we rightly describe as sunny South Africa—the growth of trees is remarkably rapid, and a forest which would take fifty years to grow in Russia would not take more than twenty in this land. Of course, I am also aware of the fact that rapidly grown timber is not of so hard or high a quality as that from the more slowly growing trees. I am,

A National Necessity by D. M. Burton.

however, sure that it is better to supply ourselves with our own home grown timber, even though slightly inferior in quality and strength, than to continually be dependent on imported timber to meet our ever growing demands. Home grown timber will have the advantage of cheapness, while at the same time we would feel that every penny spent on such would be money subscribed towards the circulation of wealth in the Union, whereas every shilling spent on imported wood will represent at least tenpence sent out of the country to enrich other lands and impoverish ourselves.

Every million pounds spent by the Government on afforestation will show a very large margin of profit on the money invested after allowing for interest and all expense of planting and upkeep. As a purely financial and business matter it should prove an excellent investment.

During the progress of afforestation and afterwards, employment would be given to large numbers of poor whites, returned soldiers and the like. The Government would thus be able to solve the problem of getting rid of the poor white as an incubus and at the same time be able to offer employment of a congenial nature to the returned and partially incapacitated soldier and the phthisis sufferer from the mines. The millions spent by the Government over a generation will remain in this country and will be merely so much wealth in circulation and not a monetary loss to the Union.

It must be acknowledged that the whole of South Africa is not a natural timber region, and in certain parts cannot become suitable for afforestation owing to insufficient depth of soil on much of the higher plateau and too closely packed natural soil on some of the lower levels. Notwithstanding this, there are millions of acres suitable for the luxuriant growth of the most useful timber trees.

The statements, which have been made by some, that the South African plateau was once covered with dense forests which gradually was destroyed by grass fires, will not bear intelligent investigation. These allegations were often based on the existence of our coal measures; it had evidently been overlooked that these coal seams were formed at sea level when the soil was deep, while afterwards the whole region was pushed up to an altitude of five or six thousand feet, where, under exposure, the soil was gradually eroded and carried away, leaving only a thin coating, on which it is impossible for unaided nature to have sustained trees which deserved the name of trees and which were taller and finer than those dwarfs of twenty or twenty-five feet in height which are found in the Bushveld, a name rightly given to those parts where the trees are but little better than bushes. In many places along the lower levels the soil is too dense for proper aeration, and these portions, therefore, do not lend themselves to afforestation. It is, however, generally admitted that every escarpment affords ground for the very profitable and essential business of tree-growing.

Although the belief that forests increase the rainfall has been exploded, it is admitted that the conservation of moisture by heavily treed country is of the utmost value. In this land where we complain so bitterly that water runs to the sea as quickly as it falls on the ground, it is of the utmost importance to use every effort to conserve the moisture, and nothing will do more in that direction than effective and very extensive afforestation.

It may interest some to know that during the year 1913, the last completed year before the war for which we have

returns, the Union imported no less than 16,647,283 cubic feet of timber of a value of £1,033,666. Allowing for the steadily increasing demand in this country and the high price of timber following on the war, I feel that it will be no exaggeration to say that in all probability the value of the timber imported each year after the war into the Union will approach double the figure for 1913. This is the value at the port, and represents a loss to the Union of that amount of money.

In this country it would appear that the Lands Department is in the habit of dumping on to the Forest Department all land that appears to be useless. It would seem that the governmental idea is that whatever soil is utterly useless for any other agricultural or pastoral purpose is good enough for afforestation. The Forest Department controls about one million morgen of land, of which only a little over seven hundred thousand morgen are even demarcated. Some of this area includes drift sand and coast reserves quite unsuitable for afforestation purposes. Only some two hundred and thirty thousand morgen are estimated to be under forest or plantation, the balance being made up of waste lands of little or no value even for grazing.

In 1916 the cost of administration of the Forest Department ran to £100,000, which represents 2s. per morgen over the million morgen, or 8s. 8d. per morgen on the 230,000 morgen of actual forest and plantation.

The revenue from timber sold by the Union represented in that year £16,000, or an average of 4d. per morgen, while the revenue of the department from all sources was £44,000, or 10d. per morgen. If we take into account only the 230,000 morgen under forest and plantation the value of timber sold works out at 1s. 4d. per morgen per annum. We thus arrive at the astonishing statement that it takes £100,000 expenditure per annum to produce a return of £44,000, or a Departmental loss of £56,000 per annum. Naturally, some allowance must be made for such part of the £100,000 as may represent capital outlay for starting new plantations and forests, but the figure cannot be very large, and I have no means of ascertaining it at the moment. In any case, the figures show a state of affairs which cannot be deemed satisfactory.

According to the report for 1915 the total available timber standing in Natal and Zululand is about 6,000,000 cubic feet, which at the usual average rates of the Department would represent £250,000 in value. In the Cape Province there appear to be 328,000 cubic feet of timber available annually, and this at the Government average rate of 10d. per cubic foot will represent an annual value of £14,000.

In 1915 the Union imported 9,000,000 cubic feet of timber, of which 8,000,000 represented pinewood. The total import cost at the ports the sum of £518,000, or 1s. 2d. per cubic foot.

From the figures it will be seen that if every tree in Natal and Zululand were cut down it would suffice to keep the Union in timber on an import basis for eighteen months, and if allowance is made for the consumption of timber not imported, even that period would have to be materially decreased. The Cape Province apparently could supply annually about one-thirtieth of the Union requirements on the import basis.

These figures go to show how miserably inadequate for even present requirements are the resources of the Union so far as building timber is concerned.

The so-called trees of the bushveld in the Transvaal are so short, crooked and small in diameter and of such unsuitable grain and composition as to be quite unfitted for ordinary com-

A National Neglect—CONTINUED.

mercial purposes as timber. There are about 25,000 square miles of the bushveld whereon trees of the unsatisfactory nature just mentioned grow about as thickly as in an orchard, but, except for fencing and pit prop purposes, this timber may be ignored.

I have read with considerable interest the valuable report by Mr. R. Burton, Conservator of Forests, Natal, and of Mr. R. Brisbane, who was deputed to report on the quantity of timber suitable for railway purposes in the aforementioned forests. It is to be hoped that the Administration will take to heart the advice given by Mr. Brisbane, who recommends most strongly that the planting of suitable timbers should go on with all haste throughout South Africa where suitable soil and reasonable distance from the railway will enable afforestation to be carried on. The report sets out the various timber inspected and to what use they could be put, and he emphatically points out that, to make this country a timber producing land in the true sense, the right class of tree must be planted in the most suitable areas.

Clearly our Forest Department must refuse to have every useless piece of land dumped on it, and must insist on obtaining in sufficient quantity a suitable class of soil within reasonable distance of present or immediately prospective railway facilities. Above all, it must press for a vastly greater liberality so far as expenditure in new afforestation is concerned.

From the Government Report to 31st March, 1915, it would seem that insufficient care is taken in the selection of students sent to study afforestation, and that the general standard of education among the students, though improving, is far too low for so important and scientific a subject. One might enquire with some curiosity as to what is the method of selection of students and by whom the selection is made.

The Government Report gives the Railway Administration credit for the good work done with regard to tree planting at railway stations and other selected spots along the lines. The approval is well deserved, but the Railway Administration can well afford to do much more towards beautifying the stations, and should also set about planting forests to provide it with all the sleepers which may be required from, say, twelve or thirteen years hence.

It would appear as though the Government has barely awakened to the fact that the present effort is merely playing at afforestation, and that in the interests of the future of the country it is not only desirable but essential that a bold effort to deal with the subject on a large scale should form one of the strong points of its agricultural and industrial policy.

For every tree cut down, ten or more should be planted, and why should not the Government subsidise private enterprise in that direction. Let some such law be framed and let the Government supply the young trees from its own nurseries, and already a big step will have been taken towards building up a useful reserve of timber.

Above all, let the Government enter on a bold policy in expenditure on the creation of forests in the Union which will bring in later on a big return on the capital expended, will provide employment for many thousands of white, will give the country a great, ever thriving and profitable industry, and will assist to conserve the moisture in this oftentimes parched land. By such a policy it will set vast sums in circulation each year, will add directly and continuously to the wealth of the country, and win for itself praise and blessing from all far-sighted people in the Union.

D. M. BURTON.

IN MESOPOTAMIA.

71st Field Coy, R.E. 13th Division,
Mesopotamia, June 2, 1917.

My dear —,

Many thanks for all your letters, which no doubt will arrive in due course. Sarky! you will say. Well, no, I don't intend to be as I hear you are busy and have been on Comps, etc. Drop me a short note and talk a little shop. How I long for Jo'burg; at times I am sick of war and the gruesome sights attached thereto. It makes one's blood boil at the thought of the intigators of it all. I should like them to be armed with rifles and equipment and made to march through this country daily through the summer and fed on bully and biscuits and Tigris water, with an occasional bayonet thrust for the flies to swarm on. Nice charitable spirit, isn't it?

But when one has to sit cooped up under a mosquito net with sweat streaming off and fine dust pouring on trying to write a letter, how can one have Christians feelings.

Well, on the whole, I have enjoyed myself since I have been out here. We have had lots of excitement, and I must admit I have very often been in a blue funk, but as long as one is fit what matters it? The rotten part of it all is the enormous number of fine young chaps being killed. One meets them one day, has a jolly evening, and hears a week or two later that they are gone in some rotten little scrap. We have had rather a rotten time the last few weeks up the Adhaim River, which this company bridged. Half the company stuck at the bridge maintaining it, while the other half, Haydon and I with our sections, went on in the advance. We spent nearly a month marching up and down the country, with an occasional scrap, and finally had to demolish the bridge and bring it down here with us.

Now we are real busy, and I have some fairly congenial work. Owing to my being—er— architect, Major — gives me any building work, so at present I have three ammunition magazines and some hospital work to do.

I hope to get to Baghdad for a day or two on leave. I have applied and am waiting for a reply. I haven't seen the place properly and want to have a good look round. I am very short of clothes and want to get some luxuries in the way of stores and drinks. There are a couple of hotels going strong, beastly expensive, but, still, civilisation! and of course there are sure to be one or two hospital nurses to be seen. It seems strange to think that I haven't seen a white woman since the middle of February.

I hope we move on up the Tigris in the autumn, as I believe Mosul must be an interesting place. Round Samara there are a lot of traces of old Roman work, such as the Emperor Julian's tomb. The most interesting thing I have seen is the Arch of Ctesiphon, a fine thing about 100 ft. span and at least 150 ft. high. It is, of course, part of some big building, the facade of which is classic. I have dotted on traces of foundations which I could just make out, and for hundreds of yards round are mounds of ruins, all brick and glazed earthenware. It must have been a great city in its day, built, I believe, by Cyrus the Persian and visited by Alexander the Great. Babylon is about 90 miles south of Kut and on the Euphrates. With luck I may see it before I leave the country.

Baghdad abounds with mosques, some entirely covered with glazed brick and tile work, and has a bazaar about a mile and a half long, vaulted over with brick with domes at the junctions of small streets. The bazaar is just wide enough for two vehicles to pass, so you can imagine the splendid effect. Of course as I saw it with every shop a wreck, it was not impressive. Well, I must stop as I have to see about some work.

Yours ever, G. E. PEARSE.

ARCHITECTURE IN RAILWAY STATION BUILDINGS IN SOUTH AFRICA.

Some few months ago an article appeared in a South African publication upon station buildings in various countries, and commenting unfavourably upon the existing station buildings in the Union.

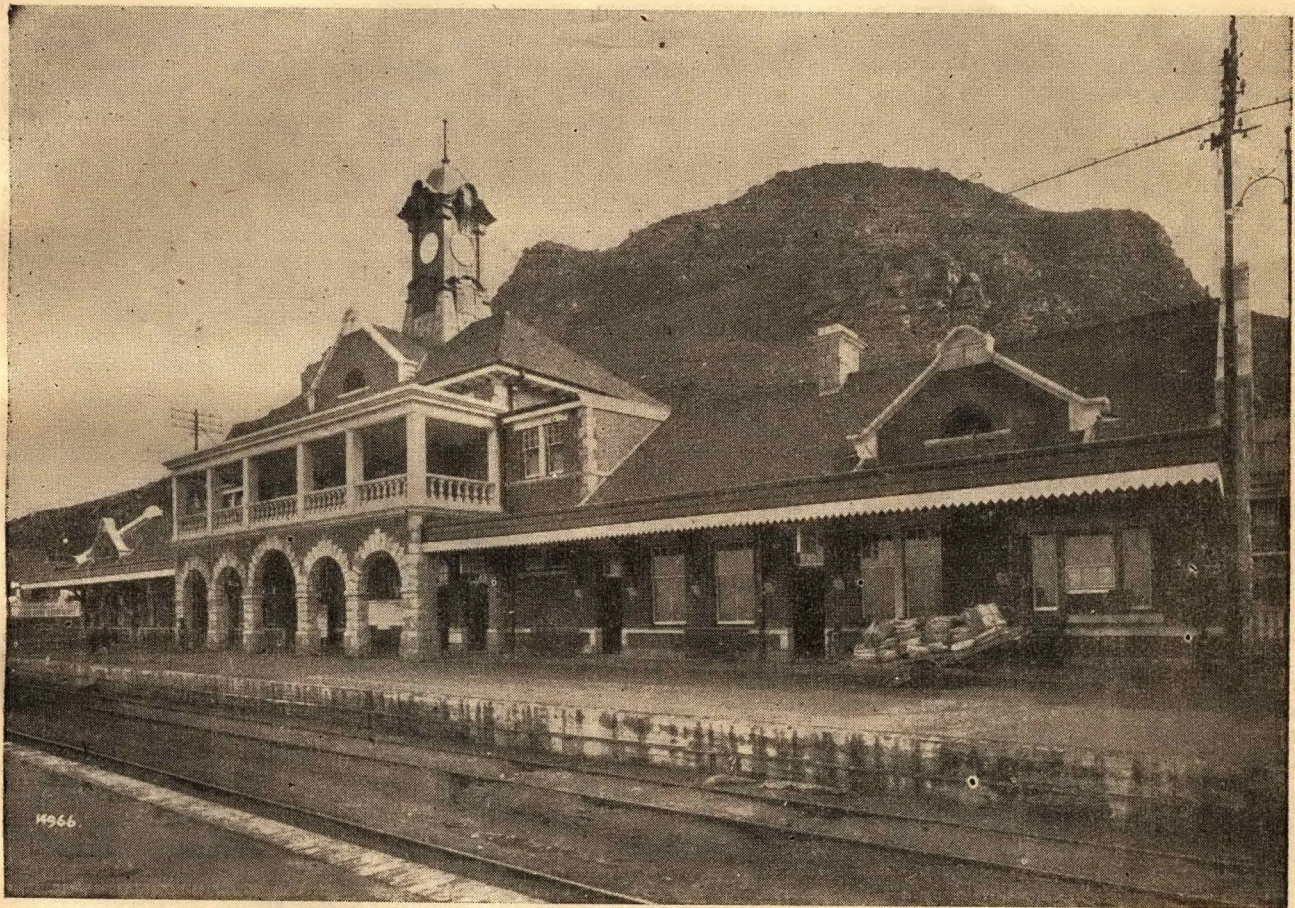
An example of what a railway station ought to be was quoted by reference to one of the enormous stations recently erected in New York, U.S.A., but surely the author overlooked the meagre population of this country in selecting the building referred to as a sample of what might be done in South Africa.

The problem of satisfactory architectural treatment of station buildings in this country is not simple, primarily because of the question of cost.

bosch), Muizenberg, Doornfontein, Germiston, Braamfontein, Fordsburg, Ladysmith, and other smaller places.

At the time of Union, in the writer's humble opinion, the smaller station buildings on the Natal Railway System were, from an architectural point of view, ahead of similar buildings on any other of the South African Railway Systems. The buildings on the Cape lines are generally of substantial construction, but, with a few exceptions, very poor in architectural treatment. On the Central South African Railway System, which developed rapidly from 1901 up to the time of Union, the smaller buildings erected were of a little more pleasing appearance than the older stations on the Cape System, and probably were cheaper in cost.

With the exception of places which happen to be the head or sub-head of a railway division, the station buildings should



The Muizenberg Railway Station—Architectural Department, S.A.R.

The mileage of the South African Railways is approximately 9,000, and some hundreds of station buildings of various sizes, but principally small, have been erected along the track.

Some branch lines do not pay running costs and upkeep, and probably a portion of these may never do so, consequently it cannot be hoped that money will be spent on architectural treatment of the buildings on such lines. This should not, however, apply to the main lines or to the paying branch lines, and it is satisfactory to know that the Railway Administration has been more liberal during the past six years by erecting a fair number of station buildings which may be considered to have some architectural merit, viz., Bosman's Crossing (Stellen-

be one storey in height, as all the offices and rooms ought to have direct access to the platform, consequently a long, low and somewhat barnlike structure will arise unless money is spent on gables and other features. It has been possible in a few isolated cases, such as Germiston, for instance, where the platform is on a bank a considerable height above the street, to erect a building having two storeys to the street and one to the platform. At a place which happens to be the head or sub-head of a railway division the embodiment of the necessary offices for the clerical staff in the station building allows of an upper storey and consequently some scope for architectural treatment at a reasonable cost.

In the "Railway Gazette" of July 23rd, 1915, there is a most interesting article (illustrated by plans and photographic views) on small station buildings in the United States of America. One paragraph in the article, viz., "There has been a marked tendency in recent years to provide better station buildings at all points, and the number of roads (railways) that allow their property to remain the most unsightly spots in the communities they serve is fast decreasing"; will be pleasing to architects generally, as it, and the illustrations referred to above, denote that there is a spirit of architectural emulation between the American Railroad Companies which must tend to do good to the districts through which their railroads pass.

As, however, the railways in this country are Government owned, there does not exist this commendable desire to architecturally treat the station buildings to the extent apparently now being done in the U.S.A., but is this sufficient reason why our railway station buildings should generally be so much inferior architecturally to other Government owned buildings, such as schools, post offices, court-houses, etc.?

The question of low cost, it is hoped, will perhaps in the near future not be the first consideration, and our station buildings will then have a chance of comparing more favourably in the matter of architecture with those of other countries, and with the other small public buildings erected in various parts of the Union within recent years. Galvanised corrugated iron has done a lot in helping to populate this land of vast distances, but it is reasonable to hope, now that this country can manufacture good roofing tiles and bricks, that buildings of more pleasing appearance will attract the eyes of the travellers on our railways.

As to our station buildings at the ports and larger towns of the Union, "The Gateways of the Cities," as they are sometimes called, they, with few exceptions, will not long keep occupied the student of architecture. Old Cape Town, the historical gateway of the country, has several public buildings that the passing stranger will pause to admire, but the station building would not, I think, long delay him, although it is not altogether unattractive in appearance.

The station buildings at Port Elizabeth and East London would take up even less time of the admirer of architectural beauty, whilst as to Mossel Bay, such a person would be more than disappointed.

At Durban the traveller would recover somewhat, as the station building in this place—the Brighton of South Africa—is a well-built structure, upon a commanding site, and is pleasing in appearance.

At Maritzburg, the seeker of architectural beauty will be more satisfied, as the station building here, situated upon rising ground at the top of Church Street, is decidedly picturesque and attractive.

The station buildings at Bloemfontein were altered and added to just after Union, and now can be considered passable.

Pretoria is fortunate in possessing a station building of architectural distinction, suitable to the capital of the Union, and much money was spent here.

But what of Johannesburg, the Metropolis of the Union? Upon Johannesburg station being referred to as the "Gateway of the City," a cynical architectural friend replied "Gateway, do you call it—hole in a fence, I think you mean."

Yet even poor decried Johannesburg station building is not altogether devoid of pleasing architectural treatment in parts,

although the ordinary traveller would say, "they are difficult to find." The main buildings on the island platform originally formed part of an exhibition building, in either Belgium or Holland, and were brought out to South Africa and erected at Johannesburg by the Z.A.S.M. The treatment of the wooden wall framing and filling is good, and the design of the ceilings in the waiting rooms and dining-rooms attract attention.

This short article has been written merely with regard to the architectural treatment of station buildings and not upon the question of the adequacy of accommodation and convenience provided in some of our larger existing stations.

D. A. McC.

BRAMANTE (1444—1514).

(By Gerald Moerdijk.)

Bramante was the first renaissance architect of note in Rome. Born in Florence, he was first educated as a painter under Andrea Mantegna, but later devoted himself to the study of architecture at Rome. He chiefly studied the architectural remains in the Forum Romanum, which naturally had great influence on his development.

Few architects are as fortunate as Bramante was. Few had a patron like Papa Julius II. During the 15th century the Popes were temporal princes. The growth and wealth of the church, not merely a church as understood now, but the dominating political influence in the country, brought the aristocratic families to Rome, and the resultant social rivalry gave the architect unique opportunities.

Ready to take advantage of these were the striking artistic personalities of the day. Raphael, Michael Angelo, Bramante, Baldassar Peruzzi, Antonio di Sangallo shared common ideals and worked together in friendly rivalry. These were the culminative results of the long and unbroken traditions of 15th century artists. When Julius II. was succeeded by Leo X., a Medici of the Florentine house, who was in full sympathy with the beautiful arts, this happy state of affairs continued, and thus even clerical intolerance encouraged art and culture.

An increase of refinement seems to go hand in hand with the return to classic, and to Bramante is generally ascribed the origin of this new tendency. Gradually all elements, foreign to classical taste, were eliminated, and contemporary writers hail Bramante as "the scholar who taught us the long lost art of good building."

Although Bramante showed considerable originality in his treatment of classic motives and much ingenuity in their adaptation to requirements, he is not the personality his admirers would have us believe. Baron von Geymuller, in a eulogy of Bramante's work, describes him as the dominating master mind of the period. He owed much to the remarkable originality of Brunelleschi, Alberti and others immediately preceding him. As an assimilator his work is characterised by quite a unique variety and flexibility of treatment of the elements at his disposal.

Bramante had great reverence for locality, and the same power of assimilation, which enabled him to sum up the traditions of Lombardi in such a work as Santa Maria della Grazie, enabled him to produce in Rome a work so completely in harmony with its surroundings as the Cancelleria palace. The broad facade, in its general character, must have revealed, to the Roman architects of the day, the interest that could be obtained in the simple distribution of features, and the effect

that good proportion and reticent modelling of surface could give apart from ornament. It also illustrates the system of setting out which constantly recurs in Bramante's work, the greater and lesser interpace. This play of rhythmical division is really his great characteristic. On the other hand, it also indicates his tendency to copyism. The triumphal arch of Titus and the Colosseum at Rome seem to have been his great models.

The illustration accompanying this article enables us to understand his manner more clearly. Here a very favourite motive is shown, the simple arrangement of two spaces over one, the central pillar of the upper storey resting on the crown of the arch below. This is Bramante's invention, and gives an agreeable rhythm; the lower storey is identical with the inner row of the Colosseum arches, the pilasters breaking through the mouldings in the same manner, exposing rather awkwardly the section of the moulding; also the proportion of the arches is the same, i.e., the double square.

Bramante's work, of this period, shows great refinement in mouldings; he was fond of framing circular-headed openings by square lines.

Other works by this architect are: Giraud Palace, the Cortile della Loggia, the greater and lesser Belvedere Courts in the Vatican, and the Tempietto in San Pietro in Montorio, a perfect gem of architecture. His "ultima maniera" is shown in his design for the Law Courts on the banks of the Tiber, which were never completed, and his design for the Saint Peters.

THE GREAT EDISON FIRE.

PHONOGRAPH AND FILM FACTORY.

The name of Thomas Edison is a synonym at all times of something new, and although the great inventor has provided one of the vasted blazes of this century involuntarily, it will be some solace that it has produced some lessons for builders never before satisfactorily solved. First, it shows that reinforced concrete will expand under heat, and in a long building expansion will crack columns and bring about demolition, and, secondly, that concrete has been found to fuse for the first time at a heat of about 2,500° F., and in fusing provide a protective coating; thirdly, that an all reinforced concrete structure is a splendid stove, and will contain burning contents until their destruction; fourthly, that concrete while heated is not so much affected by water as was thought, and is apparently as much affected by heat alone as by heat followed by water.

The film works of the Edison Company covered a vast area of ground, and comprised frame buildings of both all wood and of wood and iron, brick buildings of one storey, and several very large reinforced concrete structures of three, four and five stories high and up to 250 ft. long. The last provided illustrations of the first importance for constructors, and no one, wishing to be up-to-date, can disregard the definite conclusions to which they point.

The factories were situated at West Orange, N.J., U.S.A. The frame buildings covered 22,100 sq. ft., brick buildings 61,700 sq. ft., and concrete buildings 78,400 sq. ft., a total of over 160,000 ft., or about four acres actually built upon. The concrete buildings were of the pillar, beam and girder type, built between 1905-7, as shown in Fig. 4. The columns were square, but in Building No. 7 were circular; walls having windows from column to column, with wall panels and beams between window cills and heads of next windows below. Interior partitions were plaster of paris cinder block plastered with Port-

land cement mortar, which failed under fire. All window frames and sash were of wood, except a few of iron, and no wired glass was used. Interior metal covered wood doors were not up to present requirements for such doors.

Start of Fire.—The conflagration began in a film inspection booth of a one-storey frame building at 5.25 p.m. on Wednesday, December 9th, 1914, and rapidly spread to adjoining buildings and destroyed six (1, 2 and 3 storey) wood and brick buildings, and burned out the contents of seven structures constituting three groups of reinforced concrete buildings. The fire shot from one group to another through the immense areas of sheet glass which formed the larger part of the wall surface.

Severity of the Fire.—Melted copper and brass was found in many parts and also fused iron and melted glass. The concrete in wall columns was less damaged by spalling than the interior columns, which shows more heat in the inside of buildings than on exterior. In one building—No. 12—the concrete ran with the heat, i.e., became melted, but still the beams held to their duty although bent. This most extraordinary melting is the first recorded of concrete, and is new to everyone, and was caused by 20 tons of carbolic acid stored in sub-basement. This material burns freely when vaporized. Similar melting occurred in No. 24, where 20 tons of wax was stored. The fusing extended from $\frac{1}{2}$ in. to $\frac{1}{4}$ in., and in some cases the trap rock aggregate or matrix melted and formed globules on the surface. In Building No. 11 vats carrying nitric, hydrochloric and sulphuric acids were consumed, and the acids combined to form aqua regia, and this attacked the columns below and caused their collapse.

The fused metal indicated a temperature of at least 1,000° F. and up to 2,000° F., and in some parts 2,500° F. was reached. This last figure exceeds the melting point of most metals except perhaps platinum, and it is not surprising that the concrete suffered somewhat.

Behaviour of Concrete under Fire.—The concrete, generally, while cracked, was not damaged to any extent except where the fire was intense and of long duration. Columns in office buildings with small storage were only slightly affected, also in machine shops. Interior columns of square section in stores were spalled or split off at the corners.

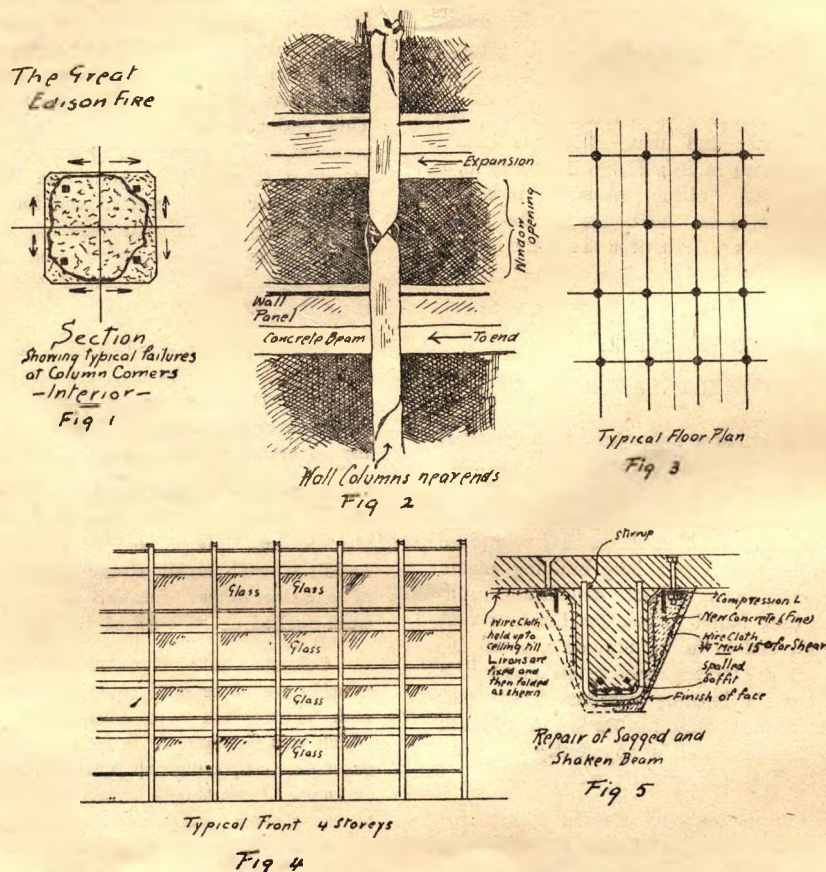
Columns were of square section and the shape was left roughly round or octagonal, as shown in Fig. 1. This spalling took place along the lines of the longitudinal reinforcement which was not spirally braced by small gauge wires as in recent practice. Spalling also took place in un-reinforced square columns. Nevertheless most of these spalled columns continued to carry their load and were repairable. Round columns stood the best, being practically uninjured, especially where protected with metal lathing plastered with Portland cement plaster, which simply pitted and spalled. No person studying the reports of this fire could doubt that this type and shape is the only one which should be used in the future. It has no equal and there was no spalling and no structural cracking to speak of. After this severe lesson square columns are out of date. In an elevator shaft the lower columns were round and the top ones square, the latter were spalled on the corners and the round ones practically unharmed, and the fire conditions were the same throughout.

Girders and Floor Slabs.—The concrete girders suffered most on the soffits and the sides comparatively little. The corners suffered to a more limited extent than in columns due to the fact that girders are in tension while the columns are in compression, thus assisting the spalling action of the heat. Slabs were not generally damaged except for cracks along the

The Great Edison Fire—CONTINUED.

line of the reinforcement. In a number of places wall brackets of metal, hangers for pulley shafts and other similar metal features afforded a quick heat connection to the reinforcement, and caused considerable spalling owing to the quicker heating of metal than of concrete. It therefore appears to be bad practice to embed metallic connections so as to become mediums of heat transmission to metal of structural value in the concrete. In these buildings the recent practice of casting floor girders and slabs in one had not been followed, and the slabs were cast on top of the beams after they were set, and in the expansion due to heat the floor slabs twisted to and fro on the girders and the arrangement allowed a lack of stiffness and sagging in floors. Concrete reinforced is best in monolithic construction,

against adjoining structures, but a free space of 6in. per 100ft. should be allowed, or else in a fire they will push their neighbours down. It is also clear that long reinforced concrete structures are a mistake unless they are made in sections to allow of swelling and contracting. The expansion of concrete even under sun-heat is considerable, as anyone can see from the way our Johannesburg footpaths push against their neighbours. The top portion of the buildings expanded more than those lower down, as Fig. 2 will clearly illustrate: where the fractures between floors indicate a movement of wall beams outward carrying the attached columns with them. As the upper parts were first in fire the lower parts moved after they did. Then, again, the ground would prevent the movement of columns adjacent to that level. Although the wall columns went as shown in Fig. 2, near the ends of buildings and failed so as to



and a positive bond throughout should be aimed at.

Extraordinary Expansion Results.—The buildings being described were of three to five storeys high and up to over 200 feet long. The spread of the fire was so rapid as to cause expansion throughout the whole length, and this caused the outer or wall columns to crack, more especially near the ends or corners. After the buildings cooled the columns returned to their former positions, see Fig. 2. The expansion was greater above the fracture than below, and the broken columns were over 100 feet from the centre of building. The free expansion for this distance in a heat of 1,000° F. would be over 6in., and this, no doubt, was the cause of the failure referred to. In erecting reinforced concrete buildings over 100 ft. long in cities, it is evident that they should not be pinned tight at each end

be practically useless for weight carrying, yet, with one exception, the whole of these great buildings remained intact, as the interior columns and beams next to the outside carried the walls after the fashion of a cantilever. It is certain that no other form of construction could achieve such a feat as to carry a four-storey wall on a row of internal columns when all the wall supports had been knocked away.

Work After the Fire.—Remarkable as this fire was, the restorations and repairs afterwards are also of great teaching value. Most of the floor slabs remained practically uninjured, and as their total superficial area extended to something like 10 or 12 acres, it will be seen that if they were usable at all they should be saved. As the columns were in most cases somewhat injured and in parts had let the floors sag greatly, and as the support-

ing beams and girders were often bent, the floor slabs were jacked up (sometimes 12 inches) to their old position and the columns restored to strength by new concrete sheathing reinforced with longitudinal steel and close spiral winding. The concrete was poured in and made of small stuff and in grout. When these columns were set, steps were taken to restore the bent beams. Fig. 5 shows the method adopted to save the beams and restore even more than their original strength. It must be borne in mind that the slabs were cast separately from the girders, hence the line shown in the figure. The scaled and loose concrete was picked off the soffits, which left the reinforcement quite exposed. The beams had developed serious diagonal shear cracks, and it is also evident that the floor slabs offered no T flange for the beam, but the tension steel was more than sufficient, being 5.38 sq. in. The girders and the slabs had separated, so that one could slip his knife blade between and sometimes even larger objects. As far as could be ascertained the web reinforcement of the girders was believed to be concentrated at the junction of the floor beam and girders (Fig. 3, thin and thick lines) and near columns, whereas the shear was theoretically constant throughout. Information was scanty in regard to the original design, and it was considered that the floor slab had been figured as the top of the beam. It became clear that the compression part of the beams must be restored and the shear values increased. This is the reason for the L iron 4in. x 4in. x $\frac{3}{4}$ in. in Fig. 5 and the wire cloth for the shear. The wire cloth is $\frac{3}{4}$ in. mesh and 15 gauge. It starts at bottom corner of beam, then carried up and along to slab and held there by wood struts till the angle iron is placed in position and bolted up to the floor slab. Then the wire cloth is carried down from L iron to beam soffit, where its lower edge overlaps its partner from the other side of beam. Thus there are four folds of wire cloth, i.e., two on each side. When the cloth is fixed in position the form or casing is put up and the concrete as grout poured from the top through 2in. holes made in slab. The grout is run by hydraulic head from a mixer tank some height above the beam. This was Mr. Edison's own idea, as he was the proposer of a house of concrete which could be poured in 24 hours. The "cement gun" was too slow, although used in some parts of the work. Mr. Edison's device was nothing more than a box some way above the beam to be poured. The pressure thus derived was enough to force in the concrete through the mesh and hard up against the spalled surface of the old beam. After restoration in this way floor loads were put on and satisfactory results obtained, inasmuch that the deflections under loads of 100, 200 and 300 lbs. per sq. ft. were but 18, 24 and 32 per cent. respectively of the deflections before the repairs were made. Nevertheless the tests of these beams showed that where the floor slab is cast with the beam the deflection is only from 1-16in. to $\frac{1}{4}$ in. for 400 to 600 lbs. per sq. ft. instead of $\frac{1}{4}$ in. to $\frac{1}{2}$ in. recorded for these test loads of 200 to 300 lbs. per sq. ft.

Throughout the restorations and investigations the enthusiastic figure of the great inventor was continually present, and the story shows that as reinforced concrete can withstand the assault of a fierce fire better than any other material, so can the undaunted spirit of this wonderful man sustain with unwavering courage one of the greatest blows which fortune could level at him.

Fig. 2 shows how the reinforcement was bent with the heat, and to remove the loose ends of the high-tension steel by the ordinary methods of hammer and chisel were inadmissible in buildings so seriously shaken. A solution of this was found by applying an oxy-acetylene flame, which cut the stout bars like tapes.

The Report on the Fire.—The very full report, on which this article has been based, was brought out after the completion of the restoration by a committee of American architects, engineers, and other, and Mr. Cass Gilbert, architect, of New York, was chairman, appointed through the American Concrete Institute. It has just been edited and published by the British Fire Prevention Committee (at 5s.). The continuous and extremely useful work of this body is far too little known in this country, as it is continually carrying out work of great value to building owners and others.

The salvage of the structure of the reinforced concrete buildings was 87 per cent and the repairs 10 to 15 per cent. The salvage of machinery was 94 per cent. in these buildings. Everything burnable was consumed, even to the fillets under the wooden floor sheeting.

The gigantic fire has brought reinforced concrete into much greater prominence than before as withstanding heat of great intensity better than any other material known to mankind, and has shown an adaptability to repair which would be quite impossible with injured fabrics of other substances.

E. H. WAUGH.

PUBLIC HEALTH NOTES.

In connection with the examinations of the Royal Sanitary Institute, steps are being taken to initiate a course of training in practical sanitation at the S.A. School of Mines and Technology, Johannesburg. This will serve a much-needed want, as no facilities exist at present for persons, contemplating entering the profession of sanitary inspector, to acquire the necessary knowledge demanded by the Royal Institute before issuing a certificate of competency. It is intended to raise the standard of the examination as, with the placing on the Statute Book of the projected Public Health Act, during the next session of Parliament, no doubt many trained, competent and certificated inspectors will be required in various parts of the Union. Candidates for these examinations will be required to satisfy the examining board of the Royal Institute that their education has been such as to ensure their being fit persons to occupy these responsible positions. The sanitary inspector's calling in this young country is a most important one, the population being so cosmopolitan and the large numbers of natives herded together, as it were, among white communities are likely to cause frequent epidemics of disease, and the knowledge of dealing with plague, fevers (typhus and typhoid), small-pox, etc., is most essential. All these matters tend to throw a vast amount of responsible work upon this official, and although, in the larger communities, he may work under the expert guidance of a permanent Medical Officer of Health, yet there are numerous smaller municipalities and rural districts where his authority and guidance are solely relied upon by the Local Authorities.

Mr. A. Gordon, Sanitation Inspector to the Central Mining and Rand Mines Group of mines, has been commissioned as a Captain in the S.A.M.C., and has been placed in charge of sanitation at the military camp at Roberts' Heights.

Lieut. C. J. Crothall, S.A.M.C., who in private life is a sanitary inspector to the Johannesburg Municipality, and who deals with health matters on building plans, has returned to town on short recuperative leave from German East Africa.

Staff-Sergeant G. Bidwell, S.A.M.C., one of the staff of sanitary inspectors to the Johannesburg Municipality, has recently been recommended for a commission. Sergeant Bidwell, who has been through the whole of the German East campaign,

recently returned on recuperative leave after a severe bout of malaria. He rejoined his regiment a few weeks ago.

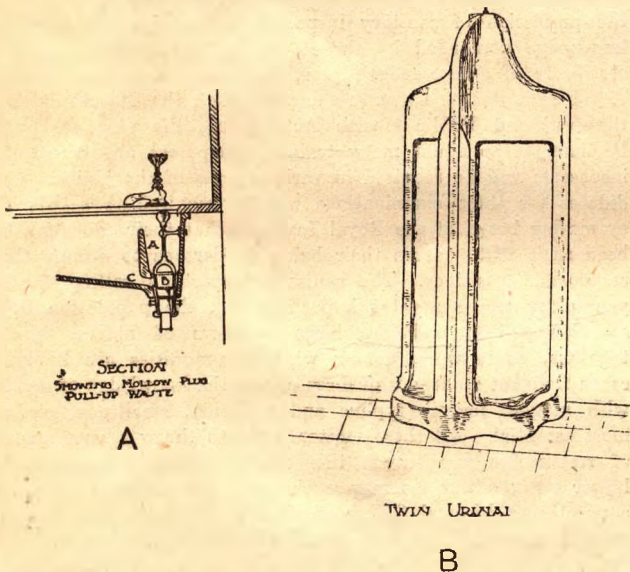
Colonel Stock, the Director of Medical Services for the Union, has recently returned from Europe, where he has been organising the hospitals for the South African contingent. Colonel Stock, who is Vice-President of the Sanitary Inspectors' Association of the Transvaal, was for a number of years Assistant Medical Officer of Health to the Johannesburg Municipality.

One-third of the membership of the Sanitary Inspectors' Association of the Transvaal (20 members) are at present, or have been, serving their King and country, some in Europe, others in German East.

In future the Royal Sanitary Institute have decided to hold their examinations in Johannesburg in December instead of June as formerly. It is proposed that this arrangement should commence on November 30th next, and enquiries should be addressed to Dr. Jasper Anderson, M.O.H., Cape Town.

At the June examinations in Johannesburg, 35 persons, including eight ladies, presented themselves for the certificate of Sanitary Inspector, and 6 for the qualification of competency in Sanitary Science as applied to buildings and works. Many of these candidates showed very little practical experience of the work, and a course of training is required by which aspirants can obtain first hand knowledge of the duties. A number of candidates showed weakness in spelling and composition, and in proportion the women made a better showing than the men.

RECENT DESIGNS IN SANITARY WORK.



The well known firm of Shanks have introduced two fine improvements. The lavatory basin overflow is on the weir principle, but the space behind weir is greatly enlarged, so that the hand can be put into it for cleansing, and the entire plug can be withdrawn.

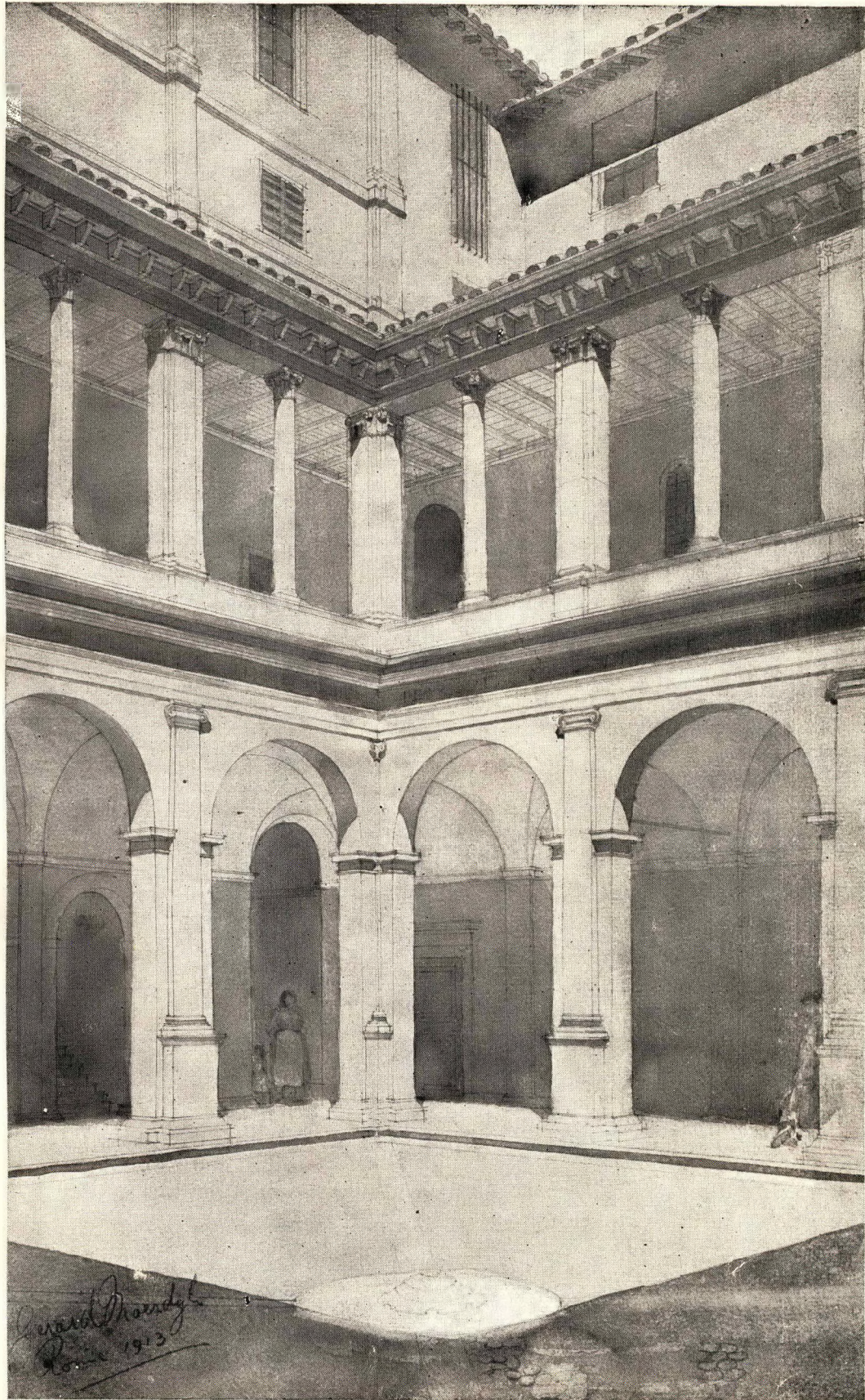
The other sketch shows a twin urinal. These can be put in even less space than with a continuous row of stalls, up to any number and give more privacy and a much better effect, and we are informed the cost is no greater and probably less.

A BIG BUILDING SCHEME.

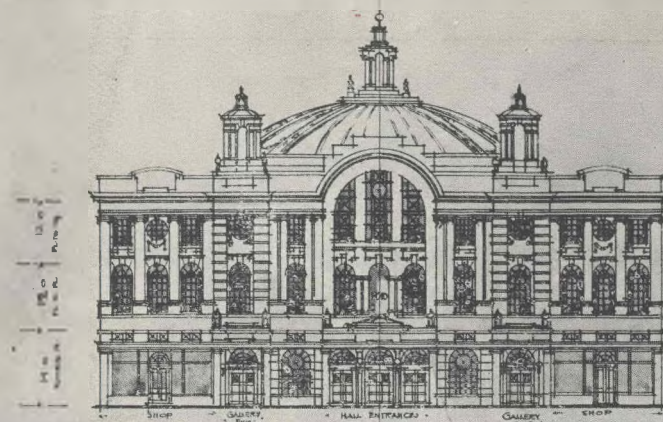
Owing to the slow and unsatisfactory recovery of soldiers, sick and wounded in tropical fields of war, the Union Government has been asked to carry out for the Imperial and Indian Government hospital and convalescent homes to a value of something like £400,000 so that our unfortunate "boys" may have the benefit of the marvellous climate of South Africa. This scheme is reported to cover four establishments, and the first is to go up near the Addington Hospital in Durban and to cost £120,000, and to be of simple and rapid construction with 4½in. brick walls with piers and simple roofs of Rok, Ruberoid or such type of roof. The greatest speed is necessary, as the soldiers are suffering terribly in the tropics.

We hear that an influential deputation from the Federation of Master Builders has interviewed the Secretary for Public Works, whose department have the handling of the erection, and suggested that, as time was the all important factor, a small board of large contractors should be formed to organise the construction works, buy material and employ labour. These men could be employed at a salary, and in fact some were prepared to do it without salary to help the need of the soldiers and thereby feel that they were trying "to do their bit." By this means the whole organisation could be rapidly formed and men drawn on a percentage basis from each large centre in South Africa without dislocating trade too much locally, and, further, that as the Government would thus be doing the construction, they would be able to borrow soldier tradesmen for a few weeks from Australian and other contingents passing through the ports, at, of course, the trade rates of wage. This scheme has a largeness about it that makes an instant appeal to most people who have had to do large amounts of rushed work, but the Secretary did not fancy the offer as, we are told, it would be giving the proposed board a blank cheque on the department, and fell back on the time-honoured method of a schedule contract. As, however, the Federation's proposal in this respect does not differ in substance from giving the Department's own officers a blank cheque, it is difficult to locate any strength in the argument, and we feel a big chance has been lost of getting the work done in the quickest possible way without unnecessarily dislocating labour and material. The country has to trust someone, and so has the Secretary, P.W. Department, acting for us. We are now faced with some large contractors getting the job on schedule, as there is no time for elaborate plan or quantities, and each of these men will probably pick up all the men he wants, nor will he be likely to care who else goes short. So if a Johannesburg contractor carries off a job on which he has to spend £100,000 in a few weeks he will be able to draw the men who know him from his own district and leave all other work lamenting a stoppage. If such a course was the only one open nobody would cavil at such a stoppage for such a purpose. We congratulate the Federation on the common sense it has shown, although a little bird whispers that its decision was not unanimous, as, no doubt, human wishes for a big job are not lightly set aside, even when the "voice of our brothers' blood is calling to us all from the ground" of many a battlefield. We do not question the earnestness of purpose of the Department, for whom we have the very deepest respect, but we feel it has lost an opportunity of rising to the occasion such as only comes once to most men.

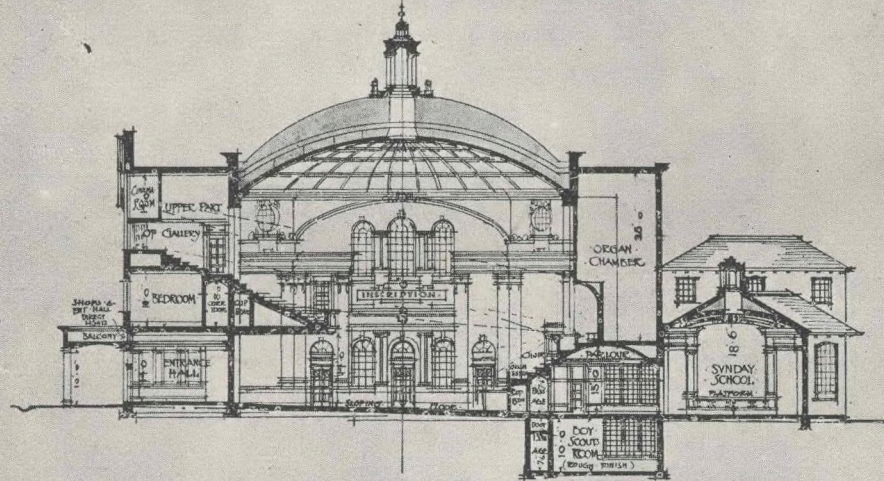
In the meantime one must assume that all the necessary material in the country will have to be used on these rapid schemes, and much of a depleted labour market also, and the



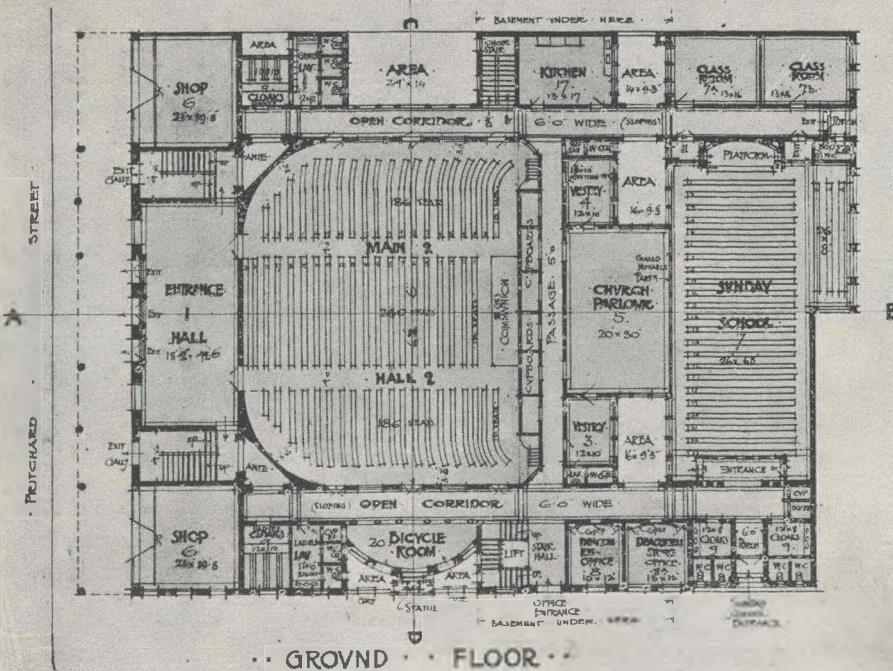
CLOISTER OF SANTA MARIA DELLA PACE, ROME. Bramante, Architect
From a Monochrome by Mr. Gerald Moerdijk



PRITCHARD ST. ELEVATION.



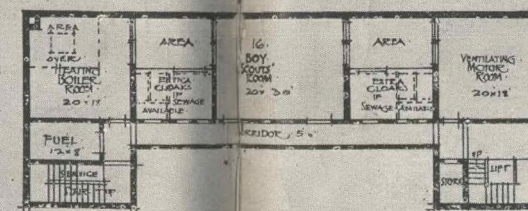
SECTION A-B.



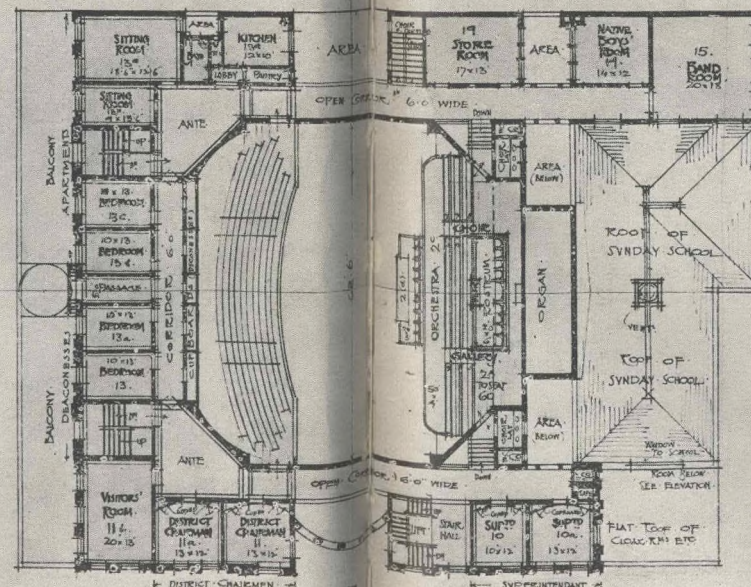
GROVND FLOOR.

WESLEYAN METHODIST CENTRAL HALL.

ACCOMMODATION.		
MAIN HALL	GROUND FLOOR	612 PERSONS
	CHORUS GALLERY	50
	STEWARDS GALLERY	20
	TOTAL	328
SUNDAY SCHOOL		338

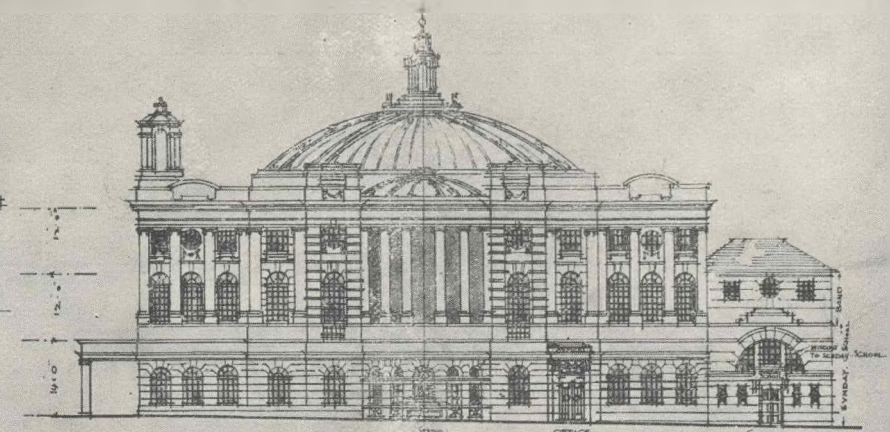


BASEMENT.

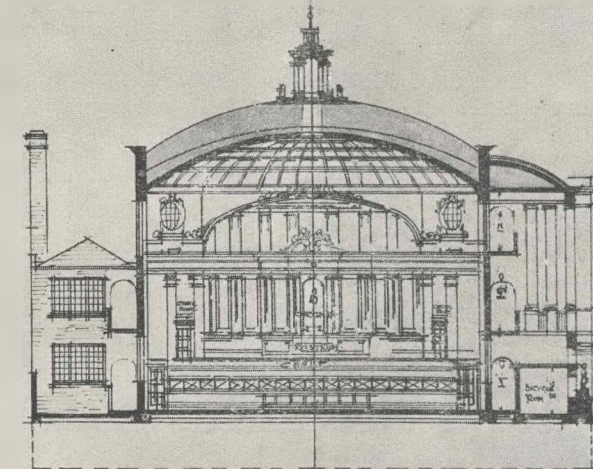


FIRST FLOOR.

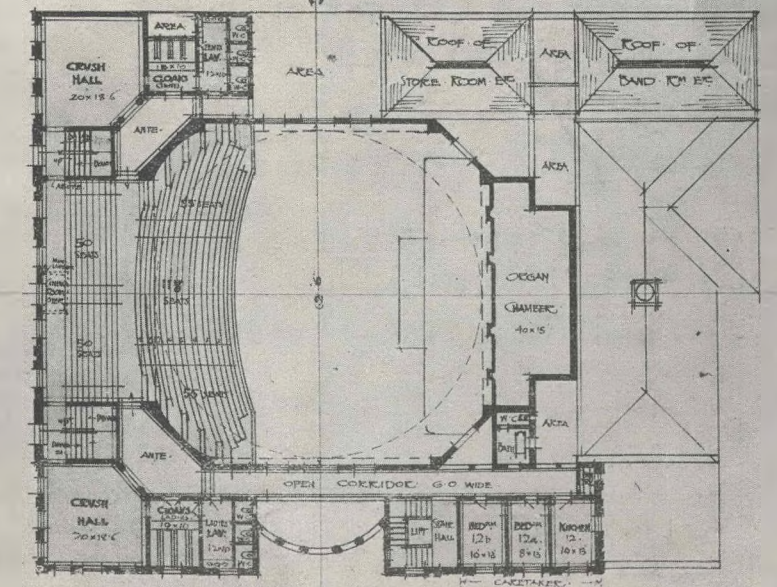
SCALE 1/16" = 1'.



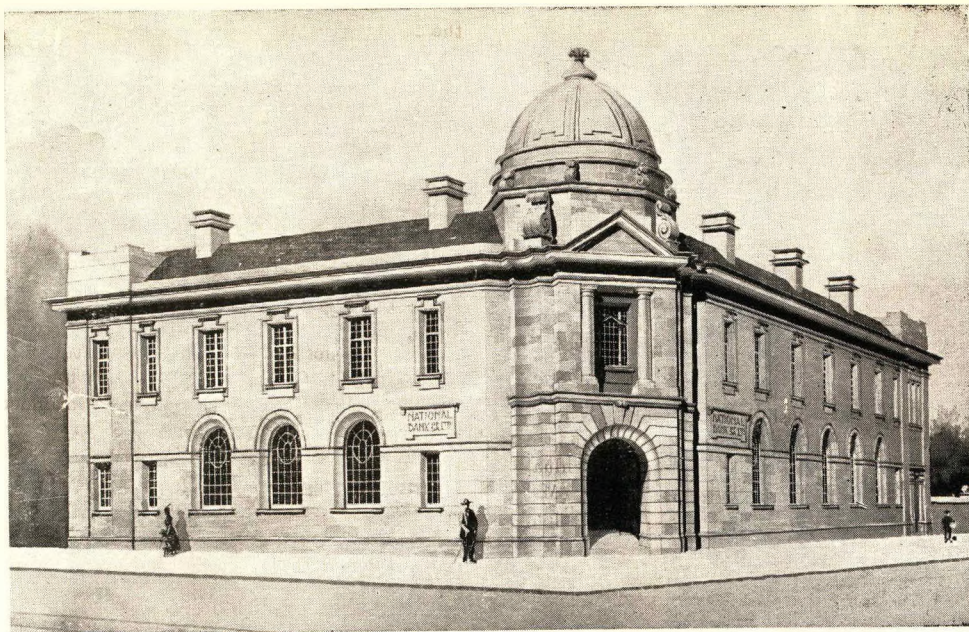
KRVIS ST. ELEVATION.



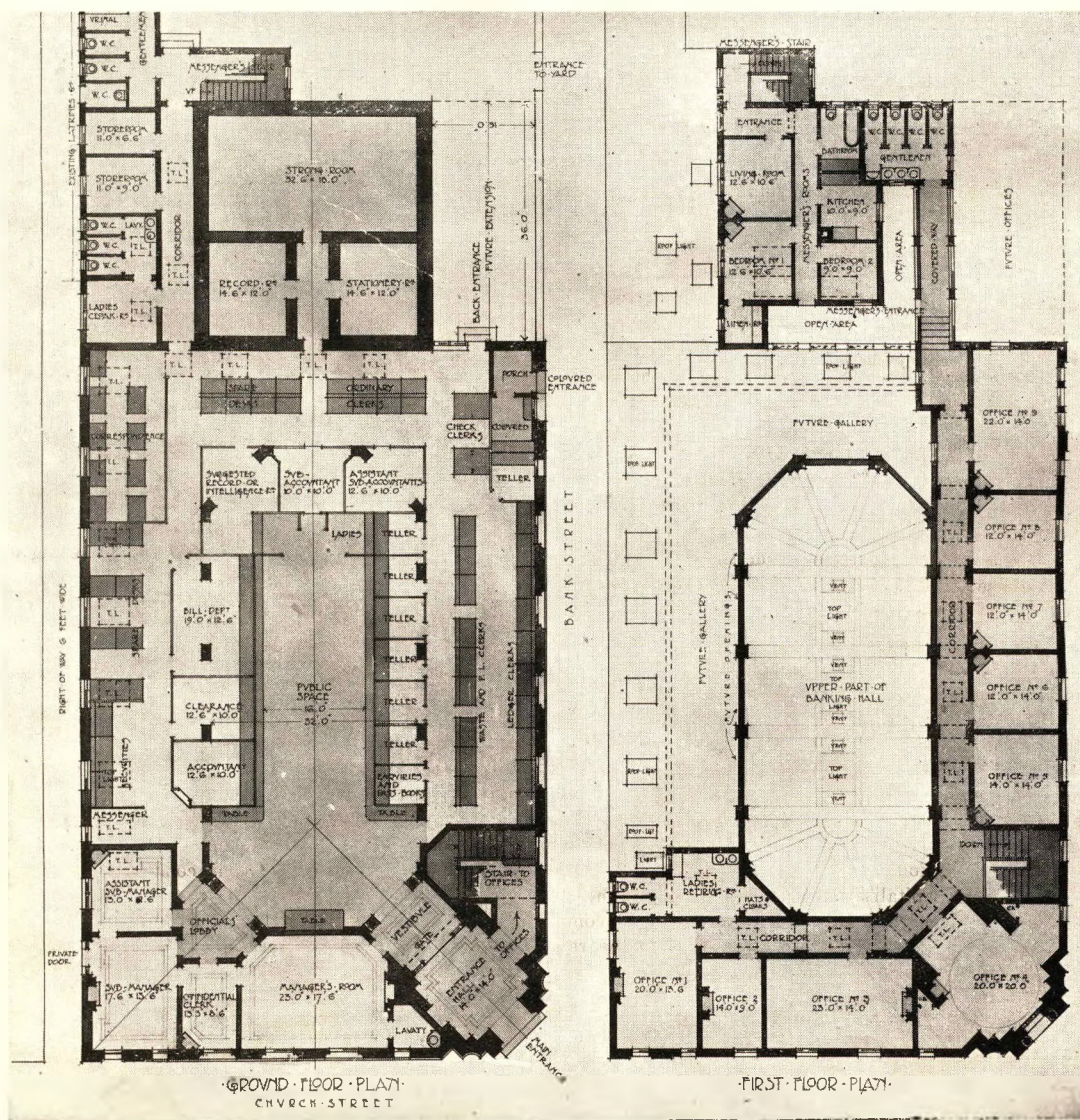
SECTION C-D.



SECOND FLOOR.



PERSPECTIVE DRAWING.
From a Monochrome by Messrs. Payne & Payne, Architects



NATIONAL BANK OF SOUTH AFRICA, MARITZBURG, NATAL.
First Premised Design — Messrs. Payne & Payne, Architects, Durban.

unfortunate architects and builders will have to suffer seriously. We hope we are wrong in this surmise, but from the information before us it appears to be more than probable.

The other works in the scheme are, we understand, hospitals at Pietermaritzburg and Cape Town and many huts at Congella.

SIGMA.

VALUATION NOTES.

Methods of valuation have been of late very much in the melting pot, and the result of the decision of the Supreme Court (Transvaal Division) in the Parkview case has cut right to the bone, as it is now ruled that a township, still in the hands of the original sub-dividers or township owner, must be looked on as a unit to be sold to one buyer and not to so many individual buyers of lots. The Johannesburg Chief Magistrate (Mr. Merie) knocked the stuffing out of the Municipal valuation, which was about £82,000, and fixed a value of just over £23,000 as the amount a buyer would be willing to pay for the whole parcel in one. The total value attacked by the allied township owners, who have an association to protect their interests, was about £900,000 in the Johannesburg area alone, and this will be reduced to something under £250,000.

This means that these townships have been for many years making a present to the town of the surplus rates which they need not have paid. The accumulated amount of these must be in the neighbourhood of about £300,000, quite a tidy little sum, for which the general public have given them no credit. However, they did not seem to mind paying about 8d. or 9d. in the £ for years so long as the rating on land and buildings was on the same basis. As the new rating law burdens the land much more than the buildings, these owners began to kick, and with very good effect for themselves.

The Magistrate, who has the final decision on value, after hearing a lot of evidence in the Parkview township, adopted the following basis. Take the total value by the Town Valuer at so much per stand likely to be realised in time at £82,000. Divide this by the average yearly sales during last three years—about 15 lots per year. This will give an expected income till the land is all sold of so much per year. At the present rate it will take 53 years to sell out, and this income is therefore for this period capitalised at 7 per cent. after deducting 15 per cent. for administration, selling costs and rates. Instead of being valued at nearly £300 per acre—the price they are getting for individual stands, the Parkview owners are now only rated on about £60 per acre, and viewing it from the Supreme Court's standpoint, no serious objection can be launched at the Magistrate's finding, as the land is four miles from the city and not selling well. Of course, the decision will not cheapen land, as the rates will be so small as not to induce owners to part too readily.

Another case now before the Courts is the Witwatersrand Township and Estate Corporation's freehold interest in Fordsburg, Jeppe, Bellevue East and some other townships. This involves the well known and disliked stand licence which each land-holder in these places has to pay to the Corporation, being a sort of ground rent of 10s. per month. This Corporation take, in the rents, something near £20,000 per year and the income is well secured on each property. It is of good class security, but the Township Corporation think that the Town Valuer's estimate of 5½ per cent. capitalisation is too high, and claim that it should be 7 per cent., viz., on the net income. Argument was led to show that the Corporation held the reversion of

the property at the end of the lease and as well as the present value of the leasehold property in case of default in payment and the personal indebtedness of the leaseholder himself for the amount. Judgment is pending.

An interesting case arose before an Arbitration Court sitting in Johannesburg, under the Transfer Duty Act. The Auckland Park Sporting Club formed themselves into a limited liability company with a nominal capital of 60,000 shares of £1 each, of which the public only took up about 6,000, leaving 54,000 as the consideration to the vendors. To all intents and purposes the club comprises the same persons as before, with the addition of the new shareholders. The Receiver of Revenue claimed transfer duty on £56,500 and the Club offered to pay on £32,500. The Club contended that the value of the course should only be taxed and that the remainder of the consideration was for goodwill. There were nine lawyers on the case, three of them being arbitrators and the rest engaged on either side. The costs were reckoned to be about £20 an hour, and the total must have sailed up to something like £600 or £700, as the arbitrators had to be paid—which is not the case with Judges, one of the few services rendered litigants free. Eminent counsel were engaged, and one would have thought they were all fighting for a fortune instead of over a couple of hundred pounds! In fact, the proceedings put one in mind of the old fable of the monkey and the two cats, when the latter squabbled over a piece of cheese and brought it to the monkey to settle. He broke the cheese into pieces and weighed them and nibbled a piece off the heavier till he made it lighter, then he took a bit off the other and so on till none was left. After lengthy argument from the Government side that the goodwill was inseparable from the course and therefore enhanced its value, and from the Club that the course was a separate entity from the goodwill, which attached to the name and persons of the Club, which could do as good a business on any other course, the Court decided in about one line that the taxable amount should be £47,000, and that the Club should pay all the costs. Pretty hard lines to have to do all the paying and not even know why! About the shortest decision on record, and it leaves the whole question as you were, as there is no appeal! The Court apparently capitalised the average yearly profit at 15 per cent. to arrive at its decision, a fair enough figure when the speculative nature of the investment is considered. The Government wanted to take it on a 10 per cent. basis.

CRUX.

WESLEYAN CENTRAL HALL.

The following report is published for information of those who may not have had the opportunity of seeing it previously:—

I beg to submit my report on the competitive designs. The competition shows a high level of excellent in planning, design and draughtsmanship. It has been very difficult to choose from so many meritorious solutions, those which should receive the premiums. There were 25 sets submitted, one of which contained a sister plan.

I was much assisted by the practical advice of the two lay advisers, the Rev. Amos Burnet and Mr. E. O. Leake, both of whom are experienced in the work to be carried on in the buildings. They are satisfied that the design placed first will best meet the wishes of your committee.

The problem to be solved was not an easy one—to place on a restricted site, and if possible, on the ground floor certain

apartments, i.e., main hall, church parlour and meeting hall and class-rooms to be in close connection and touch, and, in addition, two deaconesses' offices. In judging the designs these main factors were kept in mind, and those showing any of these compartments on different floors—that is the main ones—were eliminated, and the final choice was made on those which in the best way provided the arrangements desired in the conditions. A minor, though important, point was the planning of the choir, orchestra, rostrum and the communion together and in such a way that the hall could be used for concerts as well as worship.

The design placed first shows a generous main entrance from Pritchard Street, a well shaped auditorium, with gallery, and parlour, small hall, vestries and class-rooms well disposed together. The planning generally is very straightforward and light and cross ventilation have been kept in view. The elevation is good in general disposition, but is somewhat florid and crowded, and I would advise consideration of a simplification by reduction of its minor parts. Some other points of lesser import will require adjustment in final plan, such as extra lobbies, cloak-rooms, lavatories, etc., not asked for, but if desirable, are not essential. These points do not, however, affect the general merits, being of a character generally met with in first sketch designs.

As to cost no reason for exception with any design, but there is no doubt, that although none of the designs fell outside the margin allowed, careful economy will have to be exercised, compatible with sound construction and simple treatment.

The awards are as follows:—

			Design
First premium (£100)	...	...	No. 10
Second premium (£50)	...	...	No. 17
Third premium (£40)	...	...	No. 1
Fourth premium (£30)	...	...	No. 25
Fifth premium (£20)	...	...	No. 8

(The sister plan of No. 1, i.e., No. 1a, was not placed, as it was not completed in accordance with the conditions).

The principle of open competition has fully justified itself in the submission of such a number of clever solutions of your somewhat difficult problem.

(Signed) EDWARD H. WAUGH, A.R.I.B.A., M.S.A.,
Assessor.

June 15, 1917.

OBITUARY.

THE LATE ALFRED WYATT PAPWORTH, A.R.I.B.A.

There fell in France, on April 2nd last, Alfred Wyatt Papworth, A.R.I.B.A., Second-Lieutenant in the Royal Engineers, the younger son of the late Wyatt Papworth, sometime Editor of "Gwit's Encyclopaedia of Architecture."

South Africa lost a promising, brilliant architect when A. W. Papworth returned to Europe after spending three years at the Cape, from about 1901 to 1904, and his friends there lost a bright and cheery companion, as his personality was of the kind of which time does not seem to dim the remembrance. It was the writer's privilege to be associated with A. W. Pap-

worth in the office of Messrs. A. & W. Reid at Capetown for about 12 months, and again in London for a few hours in May of fateful 1914 to enjoy his company. To those in South Africa who had the honour of knowing him, A. W. Papworth's death will be heard of with deep regret.



LIEUT. A. T. R. HAMILTON, BORDER REGIMENT.

"Mort sur le Champ d'honneur."

Lieut. A. T. R. Hamilton was the youngest son of the late Mr. Robert Hamilton and Mrs. Hamilton, of Trinity Lodge, Trinity, Edinburgh, where he was born. He was educated at George Watson's College, and served his apprenticeship with



The late Lieut Hamilton. Killed in action.
Photo taken during the Anglo Boer War.

the late Mr. Robert Moreham, City Architect, Edinburgh. On completion of his articles he went as an assistant to an architect in Ayr.

On the outbreak of the Boer War he joined the first active service company of the Ayrshire Yeomanry (17th I.Y.) and was made a Free Burgess of the town of Ayr before proceeding on active service. He served with his regiment till they returned home. After a brief holiday he returned to Africa, joining the staff of the late George Ransome, A.R.I.B.A., of Cape Town, where I first met him in the beginning of 1902.

In September of that year we came to Johannesburg, and he entered the office of Messrs. Leck and Emley, F.F.R.I.B.A., where he remained for over two years. He then joined me in partnership, and we were associated for over seven years. Mr. Hamilton then went to the P.W.D., Pretoria.

At the commencement of the present war he joined the Natal Light Horse, going through the Rebellion and the German West Campaign, being present at the fight at Gibeon. On the termination of the S.W. Campaign, Mr. Hamilton proceeded home and joined the O.T.C., and on passing out was gazetted

to a battalion of the Border Regiment, of which he was appointed Adjutant. He rose to the acting rank of Captain, but on proceeding to France with the Second Battalion, reverted to Lieutenant, which rank he held at the time of his death.

In a letter received the week before the news of his death, he says: "This fighting is the last word. I thought I knew something about it before, but this wipes everything out. The artillery fire is just one continuous roar." I have received no details, up to now, of the action in which he was killed, further than it took place in the month of May last.

Though of a retiring disposition, "Sandie" (as all his friends called him) had that rare gift of making friends of those with whom he came in contact, and they both in Johannesburg and Pretoria will miss his cheery and affectionate friendship: I personally have lost a valued friend and comrade.

As to Mr. Hamilton's abilities as a designer and draughtsman, I leave this to an abler pen and better judge.

W. T. C.



It has seemed to me that one very noticeable effect of the war has been the breaking down of the barriers that so severely defined the boundaries of social grades and in their place an in-rushing of a finer sense of brotherhood.

We are all so much in the same plight, each having given someone to share in the dangers of the battlefield, that this has stirred a common sense of sympathy within us. We have learnt to feel more because the messenger of evil is as like to knock at our own door as at another. And so as the news has come to me of various young fellows who had passed through my hands professionally and who have given up their lives for their country, I seem to have felt a personal loss. Amongst the best of these was young Hamilton, a fine, clear-bred Scotsman who had made his mark in my office. A brilliant draughtsman, a fine sense of the art of architecture, and a loveable character. Perhaps too little ambitious, perhaps too modest in his own estimation, but more brilliant by far than many who were infinitely better known. His was a natural gift, but too unobtrusive. As one recognises by instinct the touch of a gifted musician, so one recognised in him the touch of the gifted artist. Unfortunately, in a way, he was satisfied with the well doing of what came to his hand, and cared little for the glamour of a greater publicity. Perhaps his life though was the better for it, that he was satisfied rather to give than to receive, and to be content with the common round of duty. And so when the call came, as it had come to him in the Boer War, he just as quietly accepted it as he had accepted all other duty calls and went very faithfully to his death. "Finis coronat opus."

F. E.

REVIEW OF ARCHITECTURAL JOURNALS.

Apropos of the Conciliation Board's report it is of interest to note, in spite of the Union's assertion that no other system is workable except a fixed minimum wage, how other countries compromise in these matters. In Australia, we are told, that a Wages Board exists for the purpose of assessing the value of each artisan, and he is graded according to his skill in his par-

ticular trade and paid accordingly, so long as he is not paid less than "his" standard rate the Unions accept the position; in other countries the difficulty is said to be overcome by paying the men in "groups" or gangs of 6 or upwards, the total work done by each gang being allocated equally, by both these means it seems the difficulty of protecting the slower or less competent man is overcome, and in either case without injustice to his employer.

It is prophesied that as a result of the war, new conditions regarding the occupation and housing of the industrial community will be necessary, men accustomed to indoor occupations prior to the war will demand open-air employment, women who have tasted of the advantages of work with good remuneration are not going to give it up, and the question of employment and housing will be one of the foremost problems; we are, as one writer says, on the even of a social revolution. In view of these possibilities it is urged that now is the time to prepare for the future, garden cities, town planning, workmen's cottages, etc., should be considered before any industrial centre should be created, and each new enterprise should form the nucleus of a self-supporting community. From a point of view of economy, standardising is suggested, so that the parts of a building can be erected from a standard pattern, and it is further suggested that such model buildings should provide for embodying all the materials at present in the buildings erected for purposes of war. It is further contended that as the housing problem has yet to mature, it is desirable that all buildings now erected should be of a temporary nature, as the wholesale rushing up of cheap and nasty permanent houses would be disastrous, while temporary measures would gain time for the preparation and erection of comprehensive and well considered schemes.

An interesting controversy on the control of street architecture has brought forward some very interesting opinions regarding the general design of cities; it is contended by some that blocks of commercial buildings should be modelled as a whole, that is, that each facade between two streets should be designed as a whole and not split up into several units; while others contend that there should be individuality in each front. The difficulty in London in treating the block as a unit has been the law of light as affecting one property differently to another, and it is suggested that by compensation all these rights should be abolished. As no such conditions exist in the Colonies, there should be no reason why some attempt should not be made to treat our blocks as units, particularly in a city like Johannesburg with small blocks and a maximum of cross streets.

In travelling through the country districts of Australia and New Zealand one is struck with the poor type of farmers' houses composed of walls and roof of imported galvanized iron. The Australian Government has at last awakened to this fact, and at the last agricultural show a competition was promoted for a farm dwelling to be erected at the show of local materials, at a reasonable cost. The competition proved a great success, some 40 designs were received, and the building erected from the successful design was greatly admired. The experiment is to be repeated every year, to enable farmers to see the different treatments that can be made of local materials in an artistic way. Before too late we should adopt some such scheme in South Africa, which is gradually approaching the same position through the use or disuse of the same material.

Particulars of the Chair of Architecture at the Sydney University have come to hand, and the subjects for the course in architecture are much more embracing than anything yet existing. While thoroughly mastering the elements of architecture, special care has been taken to make freehand drawing

must occupy the mind, and official duties have their most prominent place.

Architects are already feeling the effects of this great war, and the profession will undoubtedly suffer much more in the near future. Schemes for large building projects by private owners are held up until more favourable conditions for carrying them out; in the meantime ways and means are needed to keep going. It would appear to be the duty of the Government in the circumstances to assist the practising architects by distributing that work which must of necessity be carried out, and can be equally well done by qualified practitioners as by their own official staff. The demand is insistent for educational buildings throughout the Union, and the calls of war necessitate further public works of an urgent nature.

Articles have recently appeared in the press urging the "Speeding up of the Public Works Department" in connection with school buildings on the Rand, and one reads also of huge temporary hospitals to be erected in different parts; and the inference from these articles is that the work must be entrusted to the Public Works Department, and no suggestion of outside assistance is mooted.

Many of our architects are willing and eager to be of service to the Empire at this time, and one cannot understand why Government officials are asked to work at extremely high pressure, while the services of independent architects are not sought or desired.

The hospital work that has been alluded to might perhaps reasonably be better dealt with in this instance by the Government owing to its extreme urgency, and no doubt valuable time would be lost in organising the work among practising architects. This is the only reason why this work should be done departmentally; no question of superior qualifications and knowledge can possibly enter into the argument.

In order that the staff of the Public Works Department shall be free to deal with any war work as expeditiously as possible, other work of necessity but not so urgently needed might with advantage be placed with outside firms.

It is the practice in the Cape Province to commission architects for school work; their designs are submitted to and approved by the Government. This system has been a great help to the profession in times like the present, and has proved quite satisfactory in working, but for some unaccountable reason this method does not prevail in the other Provinces of the Union. It has been argued that uniformity in planning and a special type of building are essential for educational requirements, and that the buildings thus reduced to a "type" are less costly to erect, and, moreover, the official staff becomes thoroughly conversant with the details. Another point sometimes urged is that departmental work is more thorough and better done than the work of independent architects; and instances are cited in this connection of carelessness and want of thought by the latter. Briefly, the reply to this line of argument is that negligence is a fault that is not confined to any particular body, and it is presumption to assert that the work of the majority of practising architects is inferior to that of the official. There is always, of course, the remedy of terminating the employment of the individual who fails in his duty.

This question of distributing work should undoubtedly have the serious consideration of the Government, and united and combined action on the part of the Architectural Societies of the Union would be the best means of achieving the end in view.

The architecture of a country is the outward expression of its ideals and aspirations, and the official stamp on all public

buildings cannot but foster a limitation of ideas and a tendency to become stereotyped. The stimulus to ambition engendered by competition never leaves the architect in practice, and keenness and vigilance in his profession are essential to his success, much more so, of course, than with an official.

There should be no difficulty in conveying full particulars of requirements for any building required by the Government. A suggested method would be for the departments to supply outline diagrams of the essential and fundamental demands to the commissioned architect, and little further negotiations would be required in that case. Of course, sketch plans would be prepared at the outset and submitted for approval on the same lines as in private practice. This procedure cannot possibly be more cumbersome than that prevailing at present, and no undue delay should be experienced.

The feeling that practising architects are not receiving proper and sympathetic consideration is developing, and possible antagonism will be eliminated if the just claims of this body of professional men are recognised.

ERNEST M. POWERS, A.R.I.B.A.

UNION TRADE RETURNS.

The returns for the six months ending June 30, 1917, show a further shrinkage of imports of building material, the most noticeable being steel girders, which fell in value to £6,112 for the half year as compared with £15,600 for the corresponding period last year (1916). Sheet glass dropped from £15,700 to £13,821, and plate glass from £21,700 to £11,000. The hardware class of goods, which covers nails, screws and all kinds of small goods used in a building and other uses decreased from £618,000 to £567,691. Bar, bolt and rod iron showed only a small drop in quantity from 158,000 cwts. to 156,000 cwts., but the value rose sharply from £184,000 to £237,000, giving a vivid illustration of the rise in price, the material now costing more by one-third than it did a year ago.

The quantity of corrugated iron fell from 102,000 cwts. to 79,500 cwts., but although the quantity imported was only a little over three-quarters of that of a year ago, the value only went from £95,000 to £94,000, showing a 25 per cent. increase in price. The scarcity and especially high price of galvanised sheet iron is found in the quantity going from 27,500 cwts. to 11,000 cwts., and the price only from £27,000 to £14,000; so that a little more than half the money only bought rather more than a third the material. This shows, to some extent, why sheet iron (galvanised) has been reported to be selling as high as more than £1 per sheet, or over six times the pre-war price.

22,000 cwts. of plate iron were imported at a cost of £18,700, against 86,500 cwts. at a cost of £39,800, which shows that iron plate is more than twice the former imported cost.

Linseed oil came in at the rate of 98,000 gallons for £21,000, as against 189,000 gallons for £30,500, or half the amount for over two-thirds the whole cost of the other period.

Much more teak arrived, 40,000 cubic feet as against 26,500 cubic feet, and the cost £12,000 against £8,000, this material showing practically no increase in price—on oasis in the desert. 2,357,000 cubic feet of soft unmanufactured timber came in, against 3,049,000, and the cost of the latter was £241,000 against £189,800 for the former, showing a very slight increase of price. Flooring and ceiling totalled 320,000 cubic feet, valued £45,000, against 696,000 value £70,600.

The ports of origin sent percentages of the total imports, as compared with the same period last year, as follows:—The United Kingdom sent 51.8 per cent. as against 57, U.S.A. sent 17.7 as against 14.7, India 6.2 against 4.4, Belgian Congo 4 per cent. as against 2.1, Australia 3.4 against 5 per cent, Canada 2.3 against 2 per cent, Brazil 2 per cent. against 1.4, and Holland .9 against 1.3. So that the States, Brazil, Belgian Congo and India show distinctly appreciable increases.

SIGMA.

WHAT THE ASSOCIATION IS DOING.

Journal.—The Council has concluded an agreement with Messrs. Thorold & Co., of Johannesburg, to be sole advertising agents for "Building." Mr. Harris has resigned his position as Assistant Editor, Mr. Howden being appointed to that position. Letters have been forwarded to the Natal and Cape Institutes of Architects and to the S.A. Institute of Valuers, asking them to recognise our Journal as their official organ. Favourable reply has been received from the Natal Institute, those from Cape Institute and S.A. Institute of Valuers have not yet come to hand.

Infringement of Architects' Act.—Proceedings were taken against Mr. C. A. van Neck, of Lichtenburg, Transvaal, for practising as an architect, he not being a registered member of this Association. The Council instructed Mr. Sinclair to appear at the Court in Lichtenburg to watch the case on behalf of the Association. Mr. van Neck was found guilty, fined, and warned by the Magistrate against future violation of the Act. Other similar cases are receiving the attention of the Council.

Competitions.—Re Riverside Hotel Competition.—Certain unauthorised reports having been circularised regarding the Council's action in this matter, publication in full has been authorised of their correspondence with the Vereeniging Estates Co., the promoters of the competition. The Council think this course the more necessary on account of it having been reliably reported to them that several well known firms of architects did compete, despite the Council's published advice to the contrary. This greatly regretted, the more seeing that this matter was one especially calling for a loyalty to the profession which should have dictated their abstaining from such participation. From the correspondence it will be seen that all that the Council asked for was that the competition should be held on fair conditions such as are universally recognised to be essential.

The correspondence was as follows:—

THE RIVERSIDE HOTEL, VEREENIGING.

At the request of a number of members the correspondence in this matter is published.—Editor.

April 27, 1917.

To the Directors,
Vereeniging Estates, Limited,
Vereeniging.

RE RIVERSIDE HOTEL, VEREENIGING.

Dear Sir,

Referring to the advertisement appearing in yesterday's issue of "Rand Daily Mail" and "Star," calling for competitive designs in the above, I am directed to point out to you that the conditions upon which the designs are invited do not

appear to be in accordance with the principles which this Association has adopted touching Architectural Competitions.

My Council would count it a favour to be allowed to advise you upon the point generally and further to assist you in this particular case if you would kindly afford us such additional information (if any as you may intend to supply to competitors, beyond that contained in the advertisement.

This Association, which comprises the whole of the Architects of the Transvaal, will, as a rule, be advised by the Council as to competing in cases of unsatisfactory conditions.

Yours faithfully,

D. M. SINCLAIR,

for Registrar.

Association Transvaal Architects.

(Proposed conditions enclosed.

April 28, 1917.

Vereeniging Estates, Ltd., to Association of Architects.

I have to acknowledge receipt of your letter of the 27th instant thereon.

I shall be obliged if you will inform me in what respect the conditions upon which the designs are invited are not in accordance with the principles which your Association has adopted with regard to such competitions.

I shall be further obliged if you will inform me what additional information you consider should be supplied to competitors.

I may mention that I am arranging for an extension of time probably to the 31st July.

April 30, 1917.

Association to Estates, Ltd.

Thanking you for your courteous reply of the 28th inst., and beg to advise you that this matter will receive attention at our next Council Meeting, as called for next week, and will then write you.

May 12, 1917.

Association to Estates, Ltd.

Further in reply to your letter of the 28th ult., for the courtesy of which my Council is greatly obliged, I am directed to forward you the enclosed suggestions for the conduct of Architectural Competitions.

From these suggestions you will see that your Company's first proper step will be to form an approximate estimate of the cost of the projected buildings, and next to proceed with the appointment of an Assessor, in the manner outlined in the suggestions for the purpose of advising in the preparation of the necessary conditions referred to.

The advice contained in this letter, if acted upon, will ensure a successful issue to the competition which your Company has in project. In the interests of South African architecture my Association is concerned to assist in assuring the success of all such competitions.

ASSOCIATION OF TRANSVAAL ARCHITECTS SUGGESTIONS FOR THE CONDUCT OF ARCHITECTURAL COMPETITIONS.

Conditions should be issued to all competitors uniformly; and questions thereon which may be asked by intending com-

What the Association is Doing—CONTINUED.

petitors should be circulated, with the answers, to all competitors. Such conditions should include:—

1. Full particulars of the site for the proposed building, including its shape, size, levels, and aspect.
2. The accommodation required in the proposed buildings.
3. The limit (if any) of proposed cost.
4. Stipulations as to a uniform number, size and method of finishing the drawings (to facilitate comparison in judging).
5. A stipulation that drawings shall bear no signatures, motto, or distinguishing mark whatever, but that the author's name and address be enclosed in a sealed envelope packed with the drawings: that upon receipt by the Assessor, or his deputy, such sealed envelope will be numbered to correspond with its accompanying drawings, and shall be retained, sealed, in the safe care of the promoters until after awards have been made.
6. The date and place for delivery of drawings.
7. The amount and number of premiums to be awarded.
8. Any further stipulations especially affecting the proposed building.
9. Most importantly, it is essential that a fully qualified architect be appointed as Assessor, to advise and assist in the framing of the foregoing conditions and answers to questions thereon (all of which should be signed by you and countersigned by him) and to make the awards.

In the case of competitions for buildings not exceeding £5,000 in value, the President of this Association or his nominee will act gratuitously as Assessor, provided the designs are delivered at the Headquarters of this Association at Winchester House, Johannesburg. In all other cases the Assessor, who should of course have no interest in the competition other than as judge, should be either approved or nominated by the Council of this Association, and receive remuneration for his services in accordance with the scale laid down in the Architects' Act, Transvaal Ordinance No. — of 1909.

May 22, 1917.

Estates, Ltd., to Association.

I thank you for your letter of the 12th instant, which I will place before my Board.

5th July, 1917.

Association to Estates, Ltd.

With further reference to our letter to your Board, dated May 12th, 1917, and which you acknowledged on the 22nd of that month; we would enquire whether you are now in a position to favour us with your reply. It has been the aim of our Association to assist to make this competition a success from the point of view both of your Board and the profession.

My Council feels that your reply would remove any hesitancy that may be felt by Members of our Association as to competing.

10th July, 1917.

Association to Estates, Ltd.

Further referring to the subject of my letter dated May 12th, which you acknowledged on the 22nd of that month, my Council desires me to ask whether you are now in a position to reply upon the suggestions therein made.

In making those suggestions, the aim of my Council has been to afford your Company the benefit of considerable experience in such matter; solely with the view of assuring the success of the competition in obtaining the best possible design for the proposed building—a result which would be desirable to your Company as well as in the interests of furthering architectural knowledge and taste in this Province. The scheme appears to be of considerable importance; under proper conditions it should attract consideration by the skilled brains in this profession; and the result should be a building of an artistic character in which the best will have been made of the arrangement of the structure and of its natural surroundings.

Your reply will therefore be greatly esteemed, and will probably remove a hesitancy that is, under present circumstances, felt by many architects in regard to their participating in the competition.

July 12, 1917.

Estates, Ltd., to Association.

I have to acknowledge receipt of your letter of the 10th instant hereon.

I am directed by my Board to thank you for the various suggestions contained in your letters on this subject, and to inform you that it has been decided to issue no further particulars beyond those contained in the advertisements.

The object of my Board in inviting competitive designs was to get original ideas from architects.

◇ ◇ ◇

Wesleyan Central Hall.—The Council is pleased to report that this competition was carried out on just and honourable lines, and congratulates the promoters and the winners (Messrs. Howden & Stewart, of Johannesburg) on their success. At the public meeting when the awards on the designs were published, Mr. Sinclair thanked the promoters on behalf of the Association.

◇ ◇ ◇

Master Builders and Industrial Federation.—The Council has been asked separately by the Industrial Federation and the Master Builders' Association to indicate its attitude towards the problem which has become rather acute in the building world and is now the subject of consideration by the Witwatersrand Building Trades Joint Board, namely labour conditions.

A deputation of the M.B.A. was received by the Council, when other matters in addition to labour conditions were submitted for the Council's consideration. Generally the ground covered is as follows:—

- (a) Standard wages clause in contracts.
- (b) Elimination of piece-work in contracts.
- (c) Steps to secure due observance of the foregoing.
- (d) Steps to assist the Joint Board to carry out the recommendations of the Conciliation Board (vide Union Government Gazette, 23rd March, 1917).
- (e) Arbitration in connection with building contracts.
- (f) Guarantee of quantities and provision of quantities for all new work.
- (g) Encroachment upon architects' legitimate field of work.

To all the foregoing the Council has given careful consideration, and negotiations are still proceeding. As soon as these

What the Association is Doing—CONTINUED.

are completed the Council will take the earliest opportunity of calling a special meeting of the members of the Association, and of laying before them the whole of the points for discussion, and will then submit resolutions.

In the meantime the attitude of the Council, though definite for itself, is non-committal for the Association; though sympathetic towards efforts to raise standard, it is yet emphatic to secure the greatest freedom and protection to all members.

◆ ◆ ◆

Proposed Architects' Act for the Union of South Africa.—

The Cape Institute of Architects has written, in continuation of a correspondence on this subject, refusing to enter into any discussion upon the details of the Act which it proposes to lay before Parliament, until such time as this Association has indicated its preparedness to contribute pro rata to the costs of promoting the Act. The Council was authorized, by resolution of the Association's special general meeting on November 22nd, 1912, "to promote an Architects' Act for the Union of South Africa"; nevertheless, there has been considerable doubt as to whether even such a resolution could be taken as conferring the necessary authority, seeing that the existing Transvaal Act makes no provision for such action by the Council in initiating new legislation. Prior to replying to the Cape Institute's letter, the Council therefore decided to obtain legal opinion as to whether the Association could pledge its funds towards the promotion of the new Act. Through the Association's solicitor, Mr. Percy Chivers, the opinion of Mr. Stratford, K.C., was obtained. With his approval, reply has now been sent to Institute stating that, provided the Act promoted by the Cape Institute of Architects contains, in terms approved by this Council, the principles adopted by the Association of Transvaal Architects at its meeting on November 22nd, 1912, this Association is prepared to contribute its pro rata share of the costs of such promotion. The reply to the Cape Institute of Architects further contained the full detailed list of those principles. It is of interest to note that the decision to forward that reply and pledge to the Cape Institute was resolved upon by the Council unanimously. As the hitherto expressed views of the Cape Institute of Architects have been opposed to certain details which have been approved by the Transvaal body, the next step of the Cape Institute is awaited with considerable interest.

◆ ◆ ◆

Solicitor.—The Council has appointed Mr. Percy C. Chivers, of Norwich Union Buildings, Johannesburg, as Solicitor to the Association.

◆ ◆ ◆

Subscriptions.—The Council, in accordance with the resolution of members at last annual general meeting, has pressed the matter of arrear subscriptions, and having received a fair response has now instructed the Association's Solicitor to proceed in all cases of continued default.

◆ ◆ ◆

Government Architectural Work.—The Council is now dealing with this question in conjunction with the Natal Institute of Architects, and considers that all work on which public money is being expended should be put out to public competition as far as possible.

Association Furniture.—The Council has taken smaller offices in Exploration Buildings, and a certain amount of the board room furniture was therefore found not to be further required. It was sold at public auction (after due notification to all the members), the net amount realised being £82 19s. 6d.

◆ ◆ ◆

Bye-Laws and Scale of Charges.—The Council is having further copies of the Act and Bye-Laws printed, which may be obtained from the Acting Registrar at 2s. each. Separate copies of the "Professional Scale of Charges" are also being printed, and may be obtained, upon payment of 6d. each, from the Acting Registrar. It is thought that many members, on being requested by clients for information re charges, would prefer to hand an officially printed statement setting forth the contents of the Act bearing on this subject.

◆ ◆ ◆

Coming General Meeting of Members.—Some time during October a general meeting of members will be convened by the Council, who desire to confer with the general body upon many points in which they have endeavoured to champion the interests of the profession. The Council desire to seek advice from the members upon all these questions, as well as to seek the support and added strength which will follow upon members learning the nature of the tasks which the Council has undertaken on their behalf.

◆ ◆ ◆

Building Statistics:—

The following official statistics for period of six months ending June 30th, 1917, have been received by the Council:

Municipality.	Total		No. of plans	
	No. of Plans approved.	Estimated cost.	signed by Architects.	Estimated cost.
		£		£
Benoni	389	186,470	144	142,896
Boksburg	48	17,280	19	9,725
Germiston	85	22,709		
Johannesburg ...	715	212,120	163	92,289
(four months ending 30/6/17).				
Krugersdorp ...	58	16,817	14	8,110
Maraisburg ...	28	7,880		
Pretoria	68	41,260	54	12,838
(20/3/17 to 21/8/17)				
Roddepoort ...				
Springs	47	39,431	27	33,571

◆ ◆ ◆

Obituary.—The Council has learned with regret the death of the following:—

Mr. A. T. R. Hamilton, a member of this Association, who was killed in action in Flanders.

The son of Mr. Wickee, of Benoni, who died from disease contracted on active service in G.E.A.

The son of Mr. F. Vincent Stokes, who died from disease contracted on active service in G.E.A.

◆ ◆ ◆

Personal.—Mr. G. A. Bavan has received a commission as 2nd Lieut. in the 189th Infantry Labour Company, and arrived in France on 23rd June, 1917.

NEWS AND NOTES.

An echo of the great Forth Bridge comes to us in the death of Mr. A. S. Biggart, M.I.C.E., who, as general manager and resident engineer, had the actual carrying out of this stupendous and monumental enterprise which crowned the wonderful achievements of British bridge-builders. The bridge was completed in 1890, when the deceased was only 24. Like many other great engineers, he was born in Scotland, in Ayrshire, 59 years ago, and for the execution of the work of erecting the bridge he invented many new tools as well as subsequently, and for some time has been the head of William Arrol & Son, steel constructors.



The recent elections for the Provincial Council resulted in the election of two architects, Mr. W. H. Stuke, F.R.I.B.A., Past President of the Association of Transvaal Architects, and Mr. J. C. Cook, A.R.I.B.A., a former Member of Council. The contractors' section is represented by the return of Mr. D. Anderson, Mr. H. H. McLean, and Mr. J. Weightman. We congratulate these gentlemen, who will all prove a valuable acquisition to a Council which has not for some years been distinguished by anything but speculative legislation rushed through in a hurry. This country has been always cursed with hastily drafted laws, and the fashion of publishing Bills one week and passing them the next should be abolished for ever.



We extend a hearty welcome to our former Editor, Mr. J. M. Solomon, who has returned after six months' absence on an extended tour in the United States of America, the United Kingdom, and France, where he has been investigating at first hand the university buildings of those countries and acquiring the latest information for the important work for the University of Cape Town, of which he has been appointed architect. Mr. Solomon speaks in glowing terms of the very grand works of architecture in America, and is greatly impressed with the greatness of view of the architects and of the people who commission them. They are easily leading the world to-day. He experienced the greatest kindness, and in Paris the authorities extended unusual and unexpected courtesy, and had a building partly measured and drawn for him. He brought welcome news for Johannesburg in the approaching advent of the Michaelis Collection of Art Books, including a great number of architectural works, which will endow the town with a gift which will give students the greatest pleasure and profit. He has given a great deal of his personal time to choosing books and works and making arrangements for their dispatch. They will be housed for the time being at the Johannesburg Public Library till the Town Council erect accommodation for them at the Art Gallery.



Whatever difference of opinion may have arisen long ago with Lady Phillips over the design of this latter structure, no one can withhold the great praise she certainly deserves for gathering here a fine collection of art subjects, and for her personal work in obtaining for this town such rare gifts. Without such individual interest by some one possessing the necessary influence, the country would, to-day, be devoid of such a centre of inspiration and instruction, which is a delight to large numbers of our people.

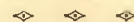
The Conciliation Board of employers and employees of the

building trades continues its work of endeavouring to obtain a decent wage standard along the Reef. They have a difficult task and are tackling it with energy. They propose to establish a list of fair contractors who conform to standards and endeavour to secure the work for such and to approach architects and owners for the purpose before letting work out.

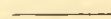
There is a great scarcity of workmen in some trades. Lately a leading plumbing contractor was asked to send men to a large town in Cape Colony where the work had been suspended for a long time owing to dearth of labour. He was not able to comply. The large number of men in skilled trades military corps at the Front has reduced available journeymen below even the limited demand, and one hears the unusual cry that work is not wanted.



Mr. S. C. Dowsett has obtained his discharge from military duty owing to the severe and continued fever attacks resulting from the German East campaign, on which he has been engaged for 20 months.



Mr. H. Fyvie, P.W. Dept, is a Lieutenant in the Gordon Highlanders, and was wounded in the "Somme Push"—in the lung—and after 12 months in hospital has again joined the field forces.



Major Reid, V.C., who is to receive a sword of honour from the Johannesburg citizens, is the son of Mr. Harry Reid, well known from the early days of the Rand, and also a nephew of Messrs. Arthur and Walter Reid.



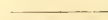
The President of the Cape Institute of Architects, Mr. W. J. Delbridge, gave, at Capetown, an interesting address on the 6th June on the increased cost of building. He referred to the increased use of local products, and made a strong bid for an afforestation policy. He considered that the higher prices for materials affected the smaller percentage of value, and that the total increase was about 15 per cent.



Mr. W. H. Stucke, M.P.C., gave a most enjoyable dance at the Unionist Party Club, Johannesburg, on the 31st August, to his friends and supporters. Among those present were Messrs. Parrack and J. Weightman, M.P.C.'s, and Mrs. Harrison acted as hostess. Mr. Stucke made a happy and delightful speech in reply to the toast of his health.



The death of Mr. John Forrest in Johannesburg removed one of our noblest spirited business men, who never spared a moment in labouring for the good of his fellows. His long association with the building supply trade made him well known and greatly beloved in the constructive callings. He gave long service on the School and Hospital Boards, and the Town Council and the Chamber of Commerce. "Well hast thou fought the better fight."



The tragic death of Mr. Walter T. Birch from a revolver accident during the latter end of August cast a gloom over the large circle of his friends. For over 25 years he was one of the Rand's largest painting contractors, and had just retired from business at a comparatively early age.

LEGAL.

The Supreme Court (Appellate Division).

BOTHWELL vs. MINISTER OF MINES.

Subject: Contract for Canal at Swart River.

The appeal was on facts and no new law principles were laid down.

The appellant contractor claimed for alleged under-measurements of certain work of clearing site at 1d. per square yard, excavation and hauling up to first 50 yards and also haulage for each extra 50 yards to canal site at 2d. per cubic yard. He claimed also extras for excavation in ground other than earth, i.e., clay, shale and rock, and for working in water and for repairing the embankment owing to floods. The Court disallowed all the claims, and laid down on the weight of evidence that clay was earth: also that the repairs to embankment were part of the contract, which laid it on the contractor to maintain the works during execution. The rock or shale was paid for by the Minister on measurements by the Department, and these quantities were upheld. The claim for extra haulage failed because no proper tally of the loads was kept and measurements of pits for borrowing earth and of the embankments did not support the claim as far as could be ascertained. The appellant contended that he reckoned on a "scraper" job for the whole work, i.e., soft stuff, and he found he could not do it with a scraper, and lost money in consequence. He could not identify the official who made the representation that it was a "scraper" job and so failed in this item. The claim for working in water was disallowed, as appellant was never asked to do so.

The decision of the lower Court was upheld with costs against the appellant. On bench, Innes (C.J.) and J. A. Maasdorp and Solomon (Js.).

The interest of this case is mainly on the claim that clay was not earth, but a more expensive material to work.

E. W.

TO OUR READERS.

Your kind attention is drawn to our well represented advertising columns, which cover most of the requirements of those building. Encouragement of our advertisers assists the Journal Committee to make the paper better, as we are not out for any profit but to assist the public to a better appreciation of architecture and of the necessity for cultivating their tastes.

EDITOR.

OUR ILLUSTRATIONS.

The design of proposed Natal Bank at Pietermaritzburg was the outcome of a private competition held by the bank authorities.

The proposed Wesleyan Central Hall in Johannesburg shortly to be erected, is by Messrs. Howden & Stewart, and is described elsewhere in the assessor's report.

The competition held some months ago by the Corporation of Bloemfontein is represented by Mr. Rees-Poole's winning

design. Mr. G. Stewart, Town Engineer, was the assessor.

Bramante's fine design of a court shows how the Italian masters ignored the cast iron method of putting opening over opening or column over column when it suited to do it differently. The ease with which they departed from such conventionalities shows the artistic freedom of their work and gives it grace and softness.

EDITOR.

OUR BOOK-SHELF.

"The Work of Charles A. Platt."—This is a monograph by Royal Cortissoz, and deals with the work of one of America's best known architects, and the writer has been fortunate in securing the personal co-operation of Mr. Platt himself. The volume represents a monumental work, containing a resume of the best country and city house work which this famous designer has executed from the beginning of his career. It contains 184 plates, each 12 x 16 inches, and the production is of the very highest quality. The illustrations consist of large photographs of exteriors, interiors, gardens and details, floor plans and detail full size working drawings. Many of the garden plans are Mr. Platt's own work. Mr. Platt is especially famous in domestic work, and has played a very important part in the great advance which has taken place in the States during the last 20 years, which is contemporaneous with the marked demand for better work which has been displayed in South Africa during the same virile period. The designs exhibit similar leanings to those of Lutjens, Mallows, Scott Baillie, Herbert Baker and Emley, and other well known exponents of the modern school of house architecture, with the difference that the old colonial style peeps out here and there, a kind of quiet Georgian treatment of the front doorways or stairways finished in white or other gentle reminder of the early history of the country. Price 20 dollars. The Architectural Book Publishing Co., 31 E. 12th Street, New York.

"Some Colonial and Georgian Houses."—This is a work of 40 plates of houses first measured for the Society of the Preservation of New England Antiquities. Much of the work is in Massachusetts, and includes Washington's Headquarters at Valley Forge, and some Adams' houses. The draughtsman is Mr. Donald Miller. Price 10 dollars. The Architectural Book Publishing Co.

"American Country Houses of To-day."—Vol. III., by Samuel Howe, exhibits the work of many architects, such as McKim, Mead and White, Aymar Embury II, Carrere & Hastings and 50 others. It illustrates a great variety of tastes, ranging from modern interpretations of Tudor to the latest architectural expression of present-day originality. Price 10 dollars. The Architectural Book Publishing Co.

"Architectural and Decorative Drawing," by B. C. Goodhue, is a large size book 13 in. x 17 in., by one of the best known practitioners, who is in addition a high-class draughtsman. Much of the work pictorially represents buildings actually erected or in project, and also decorative designs, such as book-plates, and are mostly in pen-and-ink instead of the frequent low colour-wash of poor draughtsmanship so much in vogue, which often has no merit except in the clever use of colour to the depreciation of accurate and expressive draughtsmanship. Price 9 dollars. The Architectural Book Publishing Co., New York.

Journal of the SA Architectural Institute

PUBLISHER:

University of the Witwatersrand, Johannesburg

LEGAL NOTICE:

Disclaimer and Terms of Use: Provided that you maintain all copyright and other notices contained therein, you may download material (one machine readable copy and one print copy per page) for your personal and/or educational non-commercial use only.

The University of the Witwatersrand, Johannesburg, is not responsible for any errors or omissions and excludes any and all liability for any errors in or omissions from the information on the Library website.