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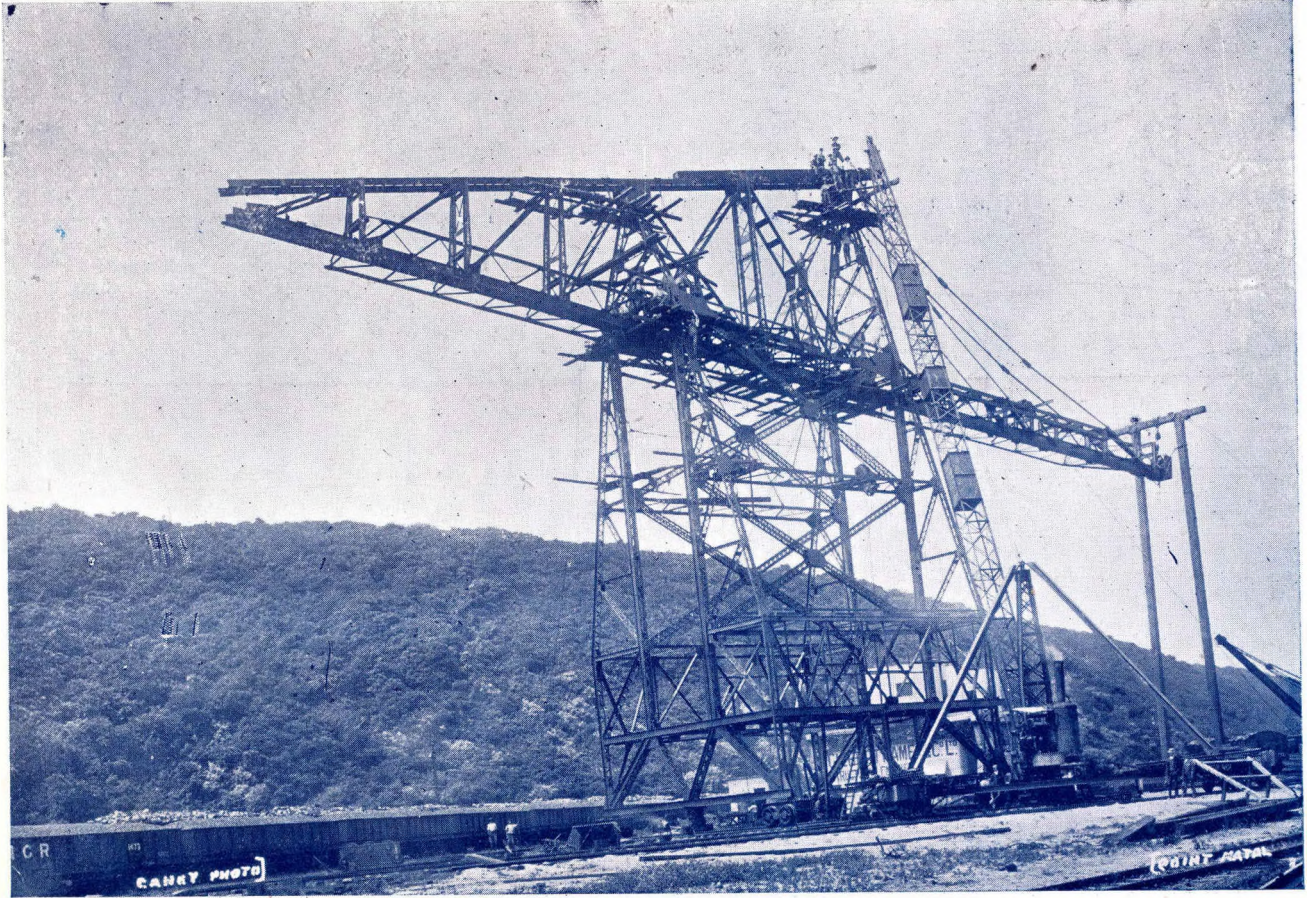
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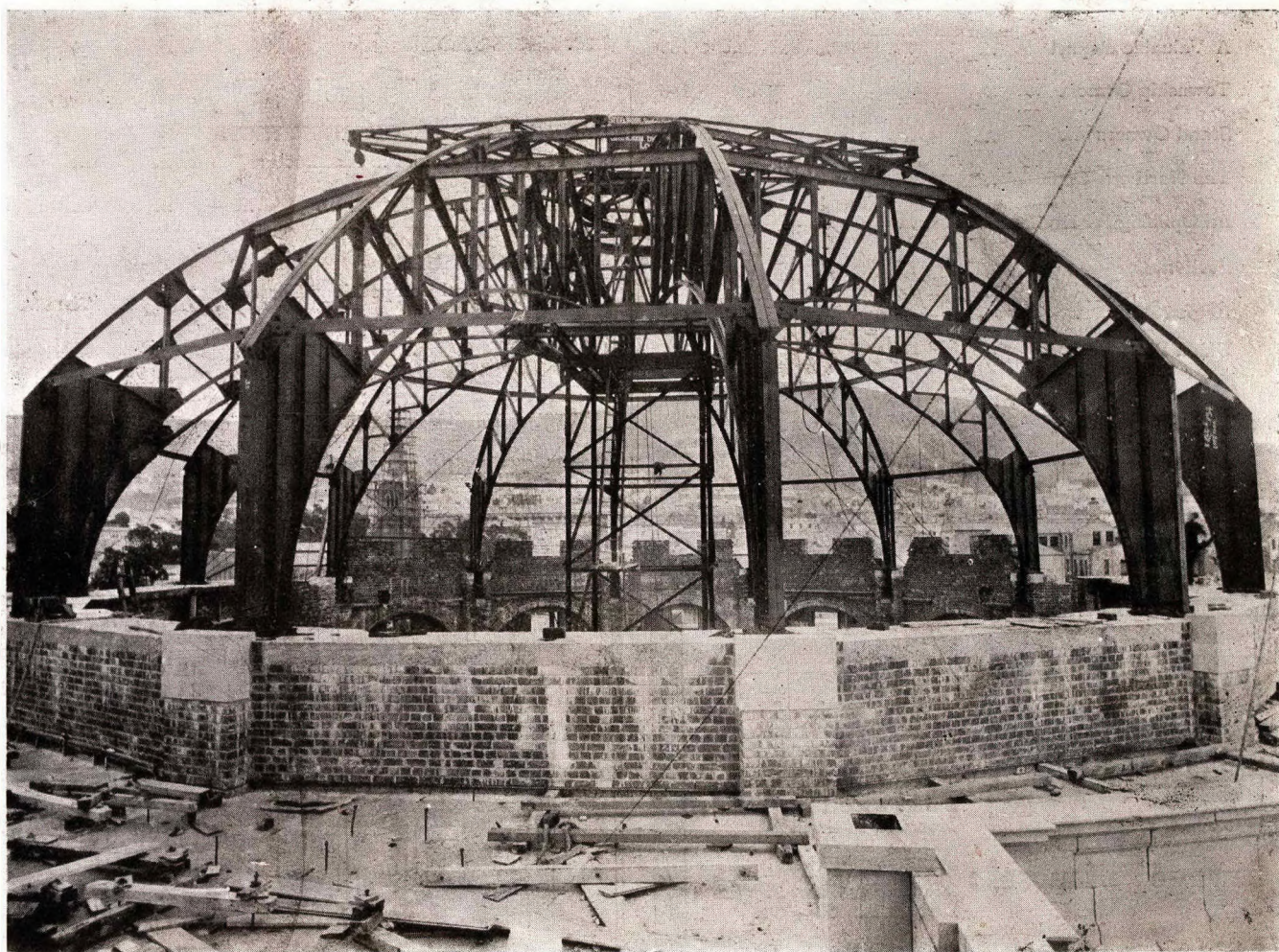
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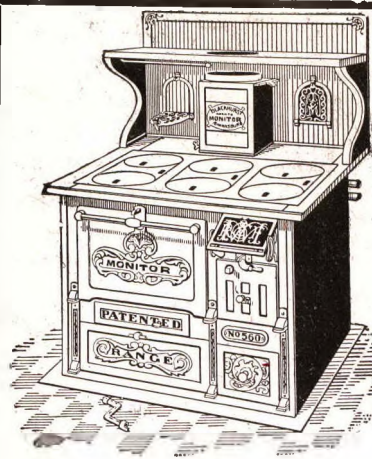
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[Vol. I. No. 8.]

JANUARY 1912.

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EDITORIAL COMMENTS.

Parapet Walls.

It is singular that in a country afflicted with such violent rain and hail storms as South Africa, the inartistic and cumbersome parapet wall, with all its attendant evils from a constructional point of view, should be so popular. The recent severe hailstorm should, however, prove its death knell, at least in Johannesburg, for these parapet walls, with the inevitable box-gutter behind, were the cause of many thousands of pounds damage being done to the various business premises throughout the city. Of all countries in this world, South Africa, with its brilliant and incessant sunshine, should adopt the deep, overhanging eaves, but in only one or two instances is this form of roof construction shown. In all other cases it has appeared to have been the main object of the architect to have done his utmost to hide his roof as much as possible. It has thus come about that over eighty per cent. of the business premises in this town are disfigured with this objectionable feature, which has nothing to commend it either from an architectural or structural standpoint. That many architects are breaking away from this groove, however, is plainly evidenced by the erection of several shops in Eloff and Jeppe Streets in which these brick-tortured parapets are absent, and thus gain considerably architecturally, as well as adding considerably to the comfort of tenants, who are thus spared the annoyance of being periodically flooded out.

A Valuable Report.

The exhaustive report which Mr. H. Knyaston, Director of the Geological Survey, has drawn up in regard to South African building stone should prove of the utmost value to architects. With the increasing use of stone in the majority of larger buildings in the Union, a very grave responsibility rests on those deputed to choose this material. Many of the stones placed on the market are of an unknown quality, and

though to all intents and purposes thoroughly sound, have, when placed in position, proved untrustworthy through causes difficult to detect. Mr. Knyaston's field of operations embraces a very large area, including the Transvaal, Orange Free State, and the Cape Province. Samples from all the principal quarries from these provinces have been submitted to a very minute analysis and their defects noted. There are no buildings of stone in the Transvaal of sufficient age to say with certainty as to their eventual weathering qualities, but there are several in which it has been conclusively proved that even after the lapse of a few years the stone has seriously deteriorated. It thus behoves all architects to make a careful study of Mr. Knyaston's able and interesting report.

Township Owners.

The question as to the liability of township owners expending money on the construction of roads and making other public improvements on their land before selling stands to the public has again been brought prominently forward, this time at Germiston. In this neighbourhood quite a number of townships have been put up for public auction, and the Germiston Town Council have recommended that before the owners be allowed to sell the stands they must be compelled, in the case of Germiston South, to spend £80,000 in making streets and other improvements. It was specified, however, that the money need not be all spent at once, but as the township increased street by street.

Stand Owners.

In the past it has been the custom for the various township owners in and around Johannesburg to sell their stands without spending a penny piece in making roads or effecting any other kind of improvement. This was left to the Council, and the funds came out of the ordinary rates. The owners argued that if they expended any considerable sum on roads, this would naturally be added on to the cost of the stand,

whereas if standholders were content with the rough roads to be found in all the outlying suburbs, plots could be sold at half of what they otherwise would cost. In course of time, as the suburb became more thickly populated, the rates obtained would more than equalise the money spent on the roads by the Municipality. This line of argument did not, however, prevent the Germiston Municipality from calling upon the township owners of Germiston South to provide the sum of £80,000 for improvements.

The Northern Capitals.

The offer of the Chartered Company, in conjunction with the Bulawayo Municipality, to give three premiums of £250, £150, and £100 for designs for the proposed Town Hall and Municipal Offices at Bulawayo will give some idea of the progressive spirit that prevails in the Matabeleland capital. From the very outset, a far higher standard of architecture prevailed in this town than usually pertains in outlying settlements, and as a matter of course the Rhodesian capital proved a strong magnet to many brilliant and able practitioners down south. In sympathy with Bulawayo, Salisbury also made rapid strides, and from its foundation more than twenty years ago has steadily advanced until to-day it almost equals Bulawayo in point of size. The bricks made near this town are of excellent quality, and from the first the buildings erected were of a substantial nature. Within the past two years, on account of the increased activity in the gold mining industry, there has been almost a building boom, and plans to the value of over £250,000 have been passed by the Municipality. Mr. Frank Masey, formerly so well known as partner for many years of Mr. Baker, has established himself at this centre, and during his residence has been responsible for a handsome building known as Government House, erected at a cost of £30,000, and a comfortable and commodious club costing £10,000. Mr. Cope Christie, M.S.A., at one time a well-known architect on the Rand, has also made his home there, and has a number of handsome premises to his credit. Besides the above-named architects, there are several others who are all busily engaged, and the wonderful progress that has been made during the last three or four years is a continual source of amazement to the visitor.

An Opening for Architects.

Unlike the majority of Town Councils in the smaller towns of the southern provinces, the members of the Municipalities of both Salisbury and Bulawayo are imbued with remarkable energy, and many of the schemes they initiate would do credit to far larger communities, and their water and electric light installations are on a most ambitious scale and far in advance of the needs of the present population. With the continued growth of the agricultural industry, both towns are bound to prosper, and they should offer an excellent opening both for the architect and contractor.

Festivities.

Johannesburg, like other cities, has been clothed in bunting and another Christmas has come and gone. The Municipal by-laws have prevented any excess of zeal on the part of shopkeepers from endangering the public, but they have nevertheless been at perfect liberty to deface their buildings with decorations of a very questionable artistic value. A most common occurrence is that of putting the Union Jack upside down, and it is time people learnt that the broad white diagonal band of the cross should be against the mast at the bottom of the flag and the narrow white diagonal band at the top, not against the mast; but in spite of this simple rule, many important buildings in town have exhibited the jack wrong way up.

Registration.

A special meeting of the Association was called last month for the purpose of reducing the annual subscription from five guineas to three guineas for the ensuing year. Unfortunately, a quorum was not obtainable, though a fair representative number attended the meeting. As the subscription commences from January 1st, it is now impossible to alter the by-law for another twelve months. The Council of the Association is open to receive any suggestions on the matter, and trusts the members will make a special effort to attend the annual general meeting to be held in February, when this and other important matters will probably be referred to.

Union Bill.

It has been deemed advisable by the Council of the Association to recommend that the new Union Bill be not presented to Parliament till next session. The draft is practically completed, but the members of the Association have not yet had an opportunity of discussing same, and considering the number of apparently contentious clauses in the draft and also the extreme advisability of obtaining the best legal advice on the matter, it is considered very inadvisable to rush the matter through, which would mean doing so if it were presented to Parliament this session. One of the most important features of the Bill to be discussed is that of finances. It is anticipated that the Union Bill will not cost less than £500. Now the only body with any capital is the Association of Transvaal Architects, and the members must face the question as to how to assist in furthering the Bill with their money.

Our Competition

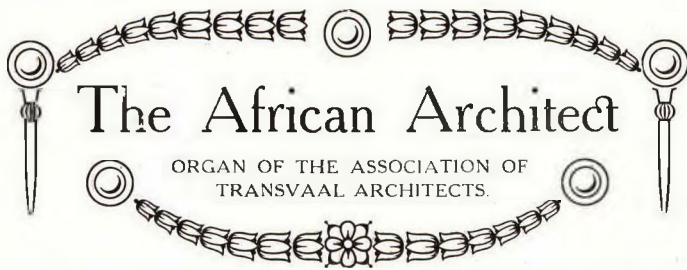
There were six designs sent in for the December competition—subject, a Village Church. Unfortunately, owing to the holidays, and one of the judges being away, it is impossible to make an announcement of the result in this issue, but we will do so in our February number.

* * *

"My friend the architect has a hard job on his hands."

"What's that?"

"He has a rich client who wants him to build an Indian vendetta around her new cottage."—"Baltimore American."



JANUARY, 1912.

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SPECIAL ARTICLES on general subjects of interest to the architectural profession, and photographs, are cordially invited from our readers. Where payment is expected this should be distinctly stated. Special care will be taken of MS., but the Editor will in no case guarantee its return.

LETTERS TO THE EDITOR.—The columns of "The African Architect" are open at all times for expression of the opinions of our readers, but the Editor disclaims responsibility for the views of correspondents. All letters must be signed with the name of the correspondent, not necessarily for publication, but in evidence of *bona fide*, and addressed "EDITOR, 'The African Architect,' Box 4651, Johannesburg."

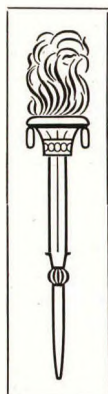
BUSINESS ANNOUNCEMENTS.—All communications on business matters should be addressed to "THE BUSINESS MANAGER, 'The African Architect,' Rooms 17 and 18, Provident Buildings, Fox Street, Johannesburg."

"The African Architect" is on sale at Chicken's News Agency, Pritchard Street, Johannesburg.

THE NEW YEAR.

The past year can certainly be looked back upon with satisfaction by both architects and contractors, especially as regards Johannesburg. There has certainly been no unhealthy boom, with its inevitable slump, but the figures published monthly by the Town Council indicate a remarkably healthy state of affairs. For the first six months the building returns amounted to £750,000 in value, while for the five latter months of the year there was an increase of over £100,000, the returns showing £869,000. The Government have also been a considerable factor in upholding the status of the building trade, their contracts in Pretoria being on a vast scale, while their substantial schools are to be found dotted not only in every hamlet throughout the Province, but are frequently to be met with perched on some lonely kopje far from any human habitation, but serving the needs of adjoining farms. Since the inception of the Education Department, many millions have been spent on school buildings, and the gigantic staff of the Public Works Department have had their energies taxed to the utmost to cope with the work. It must be confessed that practically all building operations of any magnitude have been confined to the Transvaal, and for the moment the requirements of the coast ports appear to have been provided for in the matter of accommodation. That

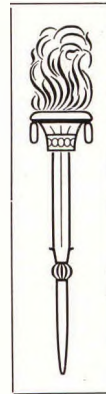
this is only temporary, however, is proved by the experience of past years, and even now East London has again begun to outgrow its present requirements, and, after a temporary lull, building is again becoming brisk at the Eastern Province port. Outside Johannesburg, the Reef townships have shown most activity, and Germiston and Krugersdorp have both become important centres and are steadily growing. Benoni, however, has made the most marked progress. Barely two years ago it was merely a hamlet, it now vies with many of the older established townships in the beauty and size of its buildings. Scattered along the Reef for a distance of fifty miles there is a population of over a quarter of a million, a greater number than is to be found in Johannesburg itself, and competent authorities estimate that this number will be almost doubled in the course of a few years. Factories of various kinds are being established daily, and from the report of the Inspector of Labour the number of factories established in Johannesburg itself number nearly four hundred and fifty. This alone is sufficient to condemn those who persistently decry the Rand and prophesy a debacle at an early date. It must be admitted that most of the pessimists belong, as it were, to a former generation, and cannot bring themselves to realise the enormous change that has taken place during the last decade. In the early history of the Rand, the great factor in the prosperity of the town was the Stock Exchange. When the market boomed everything prospered, and vice versa. It was the index whereby the prosperity of the country at large was gauged, and when, eventually, it ceased to be a power in the land, all the old-timers confidently looked for a complete collapse. The day when the movements of the market ruled the destinies of the country have long since ceased, and in its place industries and manufactories have arisen which have placed South Africa in an infinitely more secure position than it occupied before the war. In sympathy with the upward tendency of trade, architecture has kept well abreast of the times, and many of the buildings erected within the past two years would adorn any of the great European centres. Even such an authority as Mr. T. E. Colcutt, former President of the Royal Institute of British Architects, was astounded at the many able and brilliant designs which he was called upon to adjudicate upon in connection with the Transvaal University Buildings. There can be no question that year by year architecture is being lifted on to a higher plane; and, with the diffusion of wealth, the standard of taste and luxury has risen considerably. Though, as before remarked, the year 1911 can be termed satisfactory, high-water mark has been by no means reached, and there is every indication that the year in front of us holds out rich stores both to architects and craftsmen. With work disseminated over such a wide area, there is very little likelihood of the congestion witnessed in Johannesburg during 1903 and 1904. In those days there was not an architect to be found in any of the smaller towns and villages of the Union: every architect made either for the Rand or Pretoria, or the coast ports. All building in the villages was left entirely to the workman, and their handiwork is to be found in the many inartistic and inconveniently planned homes in these hamlets.



TRANSVAAL INSTITUTE OF ARCHITECTS.

"ESCAPE FROM BUILDINGS."

PAPER READ AT A MEETING HELD AT THE "TRUST COMPANY'S" BOARD ROOM,
ON WEDNESDAY, 29TH NOVEMBER, BY MR. E. H. WAUGH, TOWN VALUER AND
SUPERVISOR ARCHITECTURAL DEPARTMENT, JOHANNESBURG MUNICIPALITY.
MR. H. G. VEALE (PRESIDENT), PRESIDING.



At the above meeting the following gentlemen were ballotted for and were duly elected members of the Institute: Messrs. Johannes Victor Lindhorst and David Ivor Lewis.

"Escape from Buildings."

Mr. Waugh read his paper as follows: Lessons from fire and panic have fortunately not been common in Johannesburg, but yet there have been sufficient to make them worth considering and bringing back to the memory of those who have to deal with the planning arrangements of our buildings, both public and private.

The Glencairn Fire.

The most disastrous fire which has occurred in Johannesburg during the last few years has been that at the Glencairn Buildings on May 28th, 1908.

The building has a frontage of two hundred feet to Joubert Street and fifty feet to both Market Street and President Street, forming a rectangular block four stories high, built of brick in 1896, with floors of wood and roof of wood framing covered with corrugated iron. The ground floor comprised a series of small shops having large shop windows at the back into an open area about twelve feet wide, extending throughout the building except at the Market Street and President Street ends, where large open passages communicated with the street, but at the time of the conflagration the passage into President Street had been bricked up, leaving an auxiliary outlet at the Market Street end only.

The main staircase and entrance was situated in the centre of the Joubert Street façade (or long frontage of two hundred feet). At each side of this main entrance, which was about twelve feet wide, was a shop with plate-glass windows extending inwards along the entrance passage right up to the main staircase well, which extended vertically directly up to the ceiling over the topmost floor, the staircase running round the well and connecting floor to floor. This shaft or well was not cut off by doors in any way from each floor level, but was surrounded on three sides by brick walls.

On these two shops and staircase well chief attention must be directed, for the fire originated early in the evening in one of these shops—hair-dressers—from a benzine lamp, and in a few minutes had obtained sufficient hold to allow the flames to grip the lower part of the staircase, and they then quickly roared up this shaft as if it were a factory chimney, passing the intermediate floors at first and causing the greatest havoc on the top floor, wrapping

the top tiers of the staircase in unpassable flames. I inspected the scene of the fire the next morning early, and found that these parts of the staircases had been burnt out, while the lower parts, which were nearer the original source of the flames, had only been charred, and I was able to ascend them in safety.

The rooms on the higher floors of this building were occupied as sleeping apartments by a number of persons, and some of these had either retired to rest or were in their rooms when the dread foe leapt up the flue formed by the staircase well, and soon exhausting the fuel it found there, spread rapidly horizontally along the top floor of the building, first along the wooden ceiling and floor of the corridor, also catching the timber employed in the lath and plaster partitions used to a considerable extent along this corridor.

The Fatalities.—Position of the Bodies.

It was at this stage that the four fatalities took place. Three men and one woman were the victims. Most of these people met their deaths in the corridor, one of them being found lying on his face, as if he had been fleeing from the flames just near the top of the staircase. It was afterwards ascertained that he had run from his room right up to the main staircase, which was burning, and in turning had fallen over- come. There is no doubt, from the position in which these victims were found, that they had rushed out of their rooms and sought instinctively the best-known means of exit—i.e., the central staircase, up which the flames were roaring, and, becoming confused, forgot the small end staircase which existed at each extremity of the building, and which reached from the top-floor to the first-floor level.

This fact teaches a grave and important lesson; namely, that many people, when caught in a fire or panic, can only be expected, when overcome by fright, to act in much the same way as animals, for reason appears to become unseated from her throne and to leave some human beings little better than sheep for want of self-control. Other people sought these end staircases and found safety. It also teaches that smoke overcomes far more quickly than fire, and doubtless renders the victim insensible to the dreadful agony of burning.

Importance of Main Entrance.

But, to my mind, this big fire gives an even more important instruction; i.e., that many people will, in a panic or fire, fight wildly to go out by the way

by which they came in, even if another door marked "Escape" is close by. This was also exemplified recently at one of the local bioscope halls, where some mischievous person turned up one of the hand chemicals distributed about the hall. This at once began to hiss, owing to the generation of gas within. As the place was in semi-darkness, a small panic arose, and there was a wild and unseemly scramble, which was noticed to direct itself towards the main entrance door by which the crowd had come in, although this particular place was splendidly supplied with other easily accessible exits.

On this last account, I have no hesitation in saying that in public halls the entrance door should be always made of liberal width, wider than the other exits, which are usually denominated "emergency exits."

Danger of Open Wells for Stairs.

The catastrophes which took place at the Glencairn fire were no doubt partly, if not mainly, due to the terrible suddenness with which the flames leapt up the central stair well. This part of the structure was that which, from a safety standpoint, was very seriously wrong. I have always regarded lifts and stair wells in buildings as so many flues in case of fire, and as it is impossible to do without these conveniences, it is at least essential that if fire does occur, in even a moderately high building, it should not be allowed to escape from the stair well along the corridors, but should be given an outlet through the roof.

In all office and apartment buildings over a certain height—forty-eight feet—since 1903, such wells have had to be enclosed with brick walls and fire-resisting doors at the entrances to the corridors, and at the top this well is carried right up through the roof and three feet above, and a wooden skylight should be arranged to let out smoke and fumes as an additional help. Then, also, the corridors themselves have to be fireproof, and also the walls on each side, so that the construction employed in the old Glencairn Buildings would not be allowed to-day, and to-day the building is provided with the constructive safeguards I have mentioned.

Public Buildings.

Thus far my remarks have been mainly directed to the general arrangements in a building used for private purposes, such as offices or rooms.

There is also the "public" building used for assemblages to which the same principles apply, though in a different way.

Theatres.

Undoubtedly the most dangerous form of building is the theatre, where appliances for scenic displays and illumination effects form the principal features of the stage. The recent terrible catastrophe at the Empire Palace Theatre, Edinburgh, on May 9th, 1911, where the famous Lafayette lost his life; the still more awful burning of people at the Iroquois Theatre, Chicago, on December 30th, 1903, which stunned the civilised world; and other theatre fires continually open the eyes of the public to the dangers of these places. Our own theatre fires have not been common, fortunately, but the old Empire in Fox Street suffered twice since the war, before it was finally wiped out.

Value of the Fire Curtain.

Both the theatre fires I have mentioned, as well as those which have happened here during my own official career, have started on the stage, and in at least three of the four the fire-resisting curtain has either saved the audience in the auditorium of the theatre or, through not acting properly, has precipitated an awful tragedy like that at the Iroquois.

My paper is on escape from buildings, and it may seem that I have digressed from the subject at times, but I have done so with the object of indicating that escapes are likely to be useless if the audience or inmates are not given sufficient time to use such escapes. The fire must be held back for some time, and I presume enough has been said to indicate that, while escapes are of extreme importance, the temporary checking of the fire to give people time to get out is of even more moment.

The "Two Ways Out" Principle.

As regards the planning of escapes, the doctrine of "two ways out" cannot be too strongly insisted upon. There should be no seat in a public building or room in a private building which should not be so provided for. If one escape is blocked, there should be obviously another still left open. Yet, simple as this seems in theory, it is not always so feasible in practice, particularly in apartment buildings. In such buildings it seems that it is not possible to secure the "two ways out" rule, unless an inner passage connects each room to the street below by way of a stair, and also gives a way out on the opposite side of each room to an outside balcony, also communicating with the street, but quite separately from the first-mentioned passage. Such an arrangement is possible, but would entail severe exactions on building owners, besides being somewhat ugly. The more usual but less satisfactory system is to provide the passage itself which runs past each room with "two ways out." Under this system, a fire occurring in the corridor may block out altogether one or more rooms from the passage. I am sometimes asked, in my official life, how a "fireproof" corridor or building could possibly supply food for flames. I have always felt that the furniture, doors, skirtings, floor boards, curtains, and transom lights are sufficient to cause not only fire and danger to adjoining corridors, but to permit the extension of a fire throughout a fireproof building.

The conflagration at the Horne Building in Pittsburg, U.S.A., proves this. This structure was a modern fireproof building, and although the structural parts of the building escaped fairly well, yet it furnished food for a conflagration on a large scale which did great damage. I do not think there is such a thing as an absolutely "fireproof" building, although relatively to more inflammable buildings it may seem to be so.

As the proposal I have suggested for private buildings is somewhat impracticable, the only thing is to have the building arranged so that it may be practically impossible to cut off the escape entirely from any room or person, and the best way to secure this is for the designer to suppose a fire in any spot, and to see that his plan furnishes the inmate with "another way out."

Public Buildings.—Plain Planning of Escapes.

In public buildings, the planning of the escapes cannot be too straightforward, and I would like to give a testimony to the care which our architects are now giving to this, which exceeds anything I have known in my earlier years here.

The planning of such buildings is being better done now in this place than ever before. The exits should not be close together from any one level, they should be kept a considerable distance apart, I think the further the better, and they should reach the street no nearer than twenty feet from one another, in case of a possible flare near or at the exit door.

Separation of Exits from Different Levels.

The stairs from upper levels in public buildings should not debouch into inner vestibules or crush halls affording access or outlet for ground floor audiences. There is a tendency to plan this way, as it affords an easy way of obtaining a fine architectural effect, and it is also more palatable to the management, as it permits more economical supervision. This arrangement frequently is shown so as to discharge a stairway full of people at right angles to a flow of people from another tier below, and the system is quite wrong and might give rise to grave trouble.

If it is desirable for effect or for supervision to make an arrangement where different levels are to discharge into a common vestibule, such vestibule should be in the nature of a porch or loggia or verandah; I mean, it should have one side open to the air. In any case, even with such a loggia plan, the staircases should not discharge in any way except parallel to and in the same direction as the flow of people from the lower level.

Lighting of Exits.

It is perhaps hard for architects to realise without actually seeing it how sometimes the worst passions are let loose by a fire or panic, and in case of such occurrences the exits cannot be too straightforward. In this connection the provision of two systems of light along exists and in the auditorium is necessary.

The loss of life at the Empire Palace Theatre, Edinburgh, lately, was accentuated by the want of light, and it is terrible to think of hundreds of people pent up in a building with a raging fire and not being able to see the way out. There should be light from dual sources in case one fails.

Theatre Dressing Rooms.—Exits.

The dressing rooms in theatres are generally distinct danger zones from their necessary proximity to the stage. They should be cut off by a firewall from the stage and only have one entrance thereto from the stage at ground level, and not higher, and the exit passage from the dressing rooms should not be carried past this door to the stage, but independently and separately to the street.

Churches Not Absolutely Safe.

A word is necessary in regard to churches. My experience in dealing with many score of these structures shows that there is a tendency to look on churches as "safe propositions." While willing to admit that sacred edifices are much freer from the troubles I have indicated than places of amusement, it is not right to regard them as free from danger.

Fires are not so likely to occur as in secular buildings, but panics are quite possible, and these may be as disastrous to life and limb as a fright arising from an actual fire.

Unfortunately, however, fires do happen in ecclesiastical edifices. One of the most disastrous of which I have read happened last century in the Roman Catholic Cathedral at Valparaiso. The building was a large one, and the occasion was a festival one of such a nature that only women were present. The cathedral was hung profusely with artificial flowers and inflammable ornaments. During the service one of these festoons became ignited, and a most awful scene resulted. The great western doors opened inwards, and there was no other exit except a small one for the priests at the east end, with which the audience was not familiar. In the first fright, the poor women made a rush for the great doors, which closed on account of the terrible crush, and many were torn and trampled to death. Hundreds of others, finding their escape cut off in that direction, fled with terrible cries towards the altar, where the priests, finding their vessels in danger, and being seized with panic, caught up the most precious and escaped. The majority of the women perished in the flames or by suffocation or by being crushed. Another great historic ecclesiastical horror was that of the Monastic Church at Vezelay, which in 1120 caused the loss of 1,127 lives.

At Pisa in the last decade of the nineteenth century twelve persons were killed in a panic and twenty injured.

Churches.—Dangers of Festival Occasions.

As festival occasions are common in our churches, this lesson should be a useful one. There is a bad practice in some churches in this town, on such occasions, of blocking one of the exits with a children's staging, and of putting loose chairs along the aisles. These practices are, of course, contrary to the law, and should entail serious consequences to church officials if detected. Chairs, where used, should always be fastened in groups to give sufficient weight to ensure that they do not fall and entangle people trying to escape for their lives. Separate and loose chairs are very dangerous.

Front Doors Should Swing.

In this town the main entrances to all public buildings are required to open both ways. The object of this law is not always obvious. Years ago I had occasion to attend a meeting held in a great city church in Australia, where a very famous man was to occupy the rostrum. It was announced that the doors would open fifteen minutes before the proceedings commenced—an apparently harmless provision—but one which eventually caused serious trouble. The people began to gather an hour and a half before the doors were open, and when opened there were fully a thousand people, of whom I was one, awaiting admission. The stewards endeavoured to open the doors, which swung outwards only. One half was opened, the other it was impossible to move on account of the crush of people against it. Through this narrow aperture of two feet three inches the whole thousand people began to struggle to pass to secure good seats, and those behind crushed those next to the door. One man in front of me had his

arm caught against the closed door, and it was snapped by the crush. A woman holding an infant was so crushed through the aperture as to cause serious damage to her child. Had these doors opened both ways, this trouble could not have happened, and as it is such a simple precaution, it is always insisted upon here.

Time does not permit me to expatiate further, but before leaving the subject with you, gentlemen, I would like to refer to the question of locks on exit doors. Locks should never be employed in any buildings unless it is possible to open the doors by lifting or pressing a bolt.

Keys a Danger.

Lafayette lost his life last May through a key being necessary to open a door. He had a habit—a bad one as it proved—of having all the stage hands removed from the stage so that they could not learn the secrets of his conjuring tricks. To make still more sure, the door leading from stage to auditorium was locked against the audience. In the final scene the awful catastrophe happened, and he tried apparently to get out by this door and could not.

Doors to be in Two Leaves.

All exit doors should be double, or in two leaves, so that if the bolts are withdrawn the two leaves may be swung out, and in places like bioscope halls and theatres, where the audience is in darkness, even ordinary tower bolts should not be used, as for safety's sake the people should be allowed out without having to search in the dark for bolts above or below. In such places, the doors should be fitted with panic bolts or bolts which open on pressure from within.

All internal doors should swing both ways, as the movement of the people may be either way.

Architectural practitioners no doubt feel that the Municipal officials controlling these matters sometimes are disposed to look at things with the eye of legislators rather than that of the practitioner, but one must remember that the experience of a man in my place becomes special and very wide in these matters as he is laden with the responsibility of seeing to the public safety in every public building, and these already amount to several hundred, and it is not a light burden or one to be easily trifled with. I always try in these matters to say, let one see to life first and property next. This may not always be compatible with the wishes of some building owners, but no one can contend it is a wrong position. One has to protect in this way what may almost be called a voiceless and generally silent public when viewing the plans of a new public building.

Firemen's Difficulties.

In concluding, reference to two difficulties with which the Chief Officer of the Fire Department is sometimes confronted will be useful.

He tells me that in fighting fires in a building of any size the fire frequently gets into the concealed space in the roof and spreads rapidly, and in a very recent fire where a large mansion was involved there was not a single trapdoor through the ceiling, and the want of a few of these greatly delayed his efforts.

The other feature to which he draws attention is

that in basements, owing to the want of cross ventilation, the smoke becomes so dense as to make it extremely dangerous and difficult to fight the fire, as often there is only the door to afford ventilation or access, and the smoke cannot escape.

These two points could be easily seen to, and I feel they are important enough to warrant inclusion in this paper.

Perfection Impossible.

Perfection is not possible—it is not practicable to guarantee that there never will be danger even with the most ideal conditions. No one who enters any building, however well provided, can be absolutely guarded from mishap. The instantaneous dispersion of an audience from a building is not possible, but it is possible to do it quickly and smoothly, and to that end our efforts are directed. (Applause.)

Discussion.

The President then invited discussion, and in doing so said they had listened with the greatest pleasure to Mr. Waugh's paper, and they must express their appreciation of the valuable thought and time that he had given to its preparation. (Hear, hear.) While lectures on academic subjects were always pleasurable to the members, such practical papers as that read by Mr. Waugh were of the utmost value to them as practitioners. As Mr. Waugh had pointed out, one of the chief considerations in designing such buildings as he had described was the safety of life of the people who occupied these buildings. Mr. Waugh occupied an official position in Johannesburg in which he was in a position to give architects every assistance, and they felt much indebted to him for having frequently given them the benefit of his experience in the designing of public buildings, especially in providing for extra precautions against fire and ensuring safety to life. He wished to thank Mr. Waugh for his paper and to invite the members to discuss it as freely as possible. (Applause.)

The Question of Sprinklers.

Mr. Walter Reid said he thought that after having heard Mr. Waugh's paper they must all be agreed that he was a past master in the subject of his paper, upon which they could not teach him much. He had had the pleasure of reading Mr. Waugh's paper in advance, and, after perusing it carefully, had not many suggestions to make in the way of its improvement. In regard to legislation bearing on the subject, he thought they had much to be thankful for since the pre-war days. Mr. Reid called attention to an omission in Mr. Waugh's paper; viz., that in the matter of checking fires he did not talk about sprinklers. He thought it was a *sine qua non* that there should be some sort of sprinkler installation at the stage end of a theatre, for instance. That was where a fire generally broke out, and he thought a fire would often end there, and not spread, if such a precaution were taken. (Hear, hear.) The speaker went on to point out the insufficiency at present in designing a staircase in the matter of escape from windows and doors, and pointed out that it was necessary that the regulations should go further than they did. He thought it was within their province, as practical men, to point this out to the Municipality.

Mr. Reid then expressed his sincere thanks to Mr. Waugh for the very large amount of thought he had put into his paper. (Applause.)

Regulating Exits and Entrances.

Mr. R. Howden said he thought Mr. Waugh's paper was one of such sound common sense that it was difficult to find contentious matter in it. The facts that Mr. Waugh brought forward were such that one wondered why any architect should take it into his head to design a building that did not provide for all the precautions contained in the Municipal by-laws. There were one or two points in Mr. Waugh's paper that he would call attention to. For instance, he (the speaker) did not agree with the provision made in the by-laws that doors should open inwards as well as outwards. He failed to see that this was necessary or advisable. The arguments that Mr. Waugh used could easily be combatted by employing better means of regulating the entrances and exits of the public than the Municipality had at present. In most of the cities in England regulations were enforced by which the public were made by the police to fall into line at such places as theatres, railway stations, and bank counters. He thought it would be better if the Municipality took this in hand and provided a staff of police to regulate the public in this matter. Mr. Howden also gave it as his opinion that trap doors, such as mentioned by Mr. Waugh, gave opportunities for burglars, and were disadvantageous in that respect. In conclusion, he thought Mr. Waugh's paper a most valuable one, and that they might well adopt many of his suggestions (Applause.)

Building Owner's Risks.

Mr. Harris, the next speaker, said he was impressed by the sound and solid manner in which Mr. Waugh presented his subject. Mr. Waugh's good qualities in his official position were commendable, and he thought they ought to congratulate themselves that the Municipality had chosen a man who was so typical and characteristic of the profession. In regard to the subject of the paper, he was impressed with the responsibility of civic authority in these matters. Every architect knew that some building owners were quite prepared to take risks in the same way as others, for instance, took limb risks in sport. They recognised exactly the same quality of gambler's risk that was sometimes asked them in designing a building under certain conditions. They must, however, always insist upon certain safety in designing buildings, and the responsibility of the civic authorities was all the greater in strengthening the hands of architects in this matter. Mr. Harris went on to refer to the responsibility that rested upon architects in the matter of safety in the erection of theatres, quoting from an Italian architect, who "thought it was a shame and a crime to build a defective theatre." He thought if they substituted the word "building" for "theatre" they would find a similarity in this respect. He pointed out that architects were not necessarily to blame when a catastrophe did occur. They knew that when any mistake was made it was the custom to say: "Oh, the architect again." They should rather say the responsibility was upon the shoulders of the building

owners in insisting upon buildings being carried out in a dangerous manner. Mr. Waugh, he thought, had treated his subject with a high seriousness that demanded their admiration, and he had rejected anything superfluous.

Church Fires.

The speaker next referred to church fires, which were not so frequent, but which also created panic when they occurred. He pointed out that the difficulty of access to a building was an important fact. On two occasions which he mentioned the large assemblies had been worked up to a state of nervousness owing to the ingress to the building. There was, first of all, the alarm, and immediately succeeding it an intense hush, followed by panic. It had occurred to him since that it should be possible for scientific people to make a study of mob movement in order to check such alarms. Scientific work in regard to building fires had largely been helped by the British Fire Prevention Committee in England, for which they had no equivalent in South Africa. They had not reached that state of advance at which a Fire Prevention Committee was absolutely necessary. Mr. Harris next alluded to the want of reliance to be taken in newspaper reports of fires, and said that in supplying data Mr. Waugh had undertaken duties which were not accurately defined in those laid down for Municipal officials. He would like to know if Municipal officials were definitely charged to collect data with regard to fires generally. With regard to the shutting down of staircases in time of fire, the question had occurred to him as to whether this referred to a fireproof staircase. It was a question he would like to hear Mr. Waugh's opinion upon. It appeared that in a great many instances it would be better to leave the exit open. It was to be feared that not for a long time would an absolutely fireproof building be practicable. In conclusion, he wished to emphasise his high opinion of Mr. Waugh's paper, and to express his appreciation of the author's characteristics (Applause.)

The Methods of Escape.

Mr. Alder also spoke appreciatively of Mr. Waugh's paper. He remarked that what they were most concerned about was the method of escape from buildings, and that more attention should be paid to the actual existing exits than was done at present. He referred to Balmoral Chambers, where it was found that several of the exits were blocked up with boxes. Owners, he thought, should be advised to have their exits kept clear, whether the building was a residential one or otherwise. Mr. Waugh had mentioned about exits being used, and he (the speaker) found, on reading the accounts of large fires, that in nearly every instance fatalities occurred in the main entrance, and hardly ever at the emergency exits. When a panic occurred, it generally depended upon the way the people entered the building; they usually forgot the emergency exits. Mr. Alder next referred to fires in churches, and mentioned an instance in Johannesburg where a panic occurred through a lady's dress becoming on fire from the oil of a burning lamp. In that instance, had it not been for a large exit, there would have been loss of life. With regard to bioscopes, he did

not think there was any great danger of a fire occurring except in the operating chamber, and he thought the Municipal authorities and architects should see that every precaution was taken in this respect. With regard to sprinklers, he thought it was a very great mistake to put these in buildings where there was a proper water service. If they put a sprinkler installation into a building it meant that at a certain degree of heat these would come into operation and the greater portion of the building would be flooded with water, and thousands of pounds of damage done, whereas a length of hose brought on to a small portion of a building affected would have done small damage compared with sprinklers. Mr. Alder also referred to a small fire at the Standard Theatre, which could easily be extinguished by a kemic engine, whereas if the sprinklers were drawn the cost would be a few thousand pounds of damage. He also expressed thanks to Mr. Waugh for his paper. (Applause.)

Mr. Waugh's Reply.

Mr. Waugh, in replying to the appreciative remarks made on his paper, said that as regarded sprinklers, although they had their disadvantages, he thought that, in the main, they increased the safety of property to the public. He thought that the trouble a sprinkler installation gave was less than the

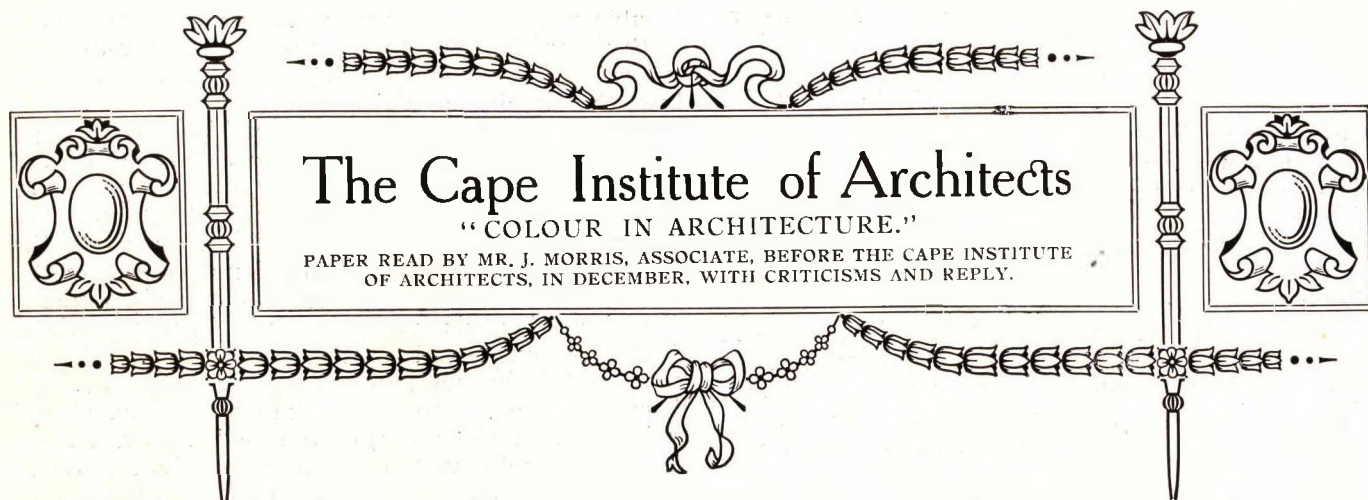
trouble would be if it was not there. (Hear, hear.) With regard to the law affecting escapes, it was not perfect, and they knew how difficult it was to make laws that would cover all the points that arose. The law was now worded that there shall be two openings out to each landing of the fire escape. It did not say where the escape was to be placed. It was very difficult to make a law that would state the position that would suit every building. With regard to the remarks of Mr. Howden, who did not believe in the doors opening inwards as well as outwards, and the difficulties about dustproof, he was fully alive to these difficulties, but would point out that the Municipality only wanted the main entrance doors so treated. He thought the disadvantages were not such as should weigh against the safety of the public. Mr. Waugh further referred to the points raised in regard to police control at buildings, also to the question of trapdoors being of assistance to burglars, remarking with regard to the latter that this was not such a strong point as to outweigh the safety to life. With regard to other remarks, he said he had always taken the view from a special standpoint that architects for buildings should always make arrangements for the escape of children and fat women. (Laughter.) He thanked the members very much for attending to hear his paper. (Applause.)

MR. CECIL ALDER, Licentiate, Royal Institute British Architects.



MR. CECIL ALDER.

Mr. C. Alder, whose portrait is reproduced this month, holds the position of Assistant Building Surveyor to the Johannesburg Municipal Council, and as such is one of the Council's busiest officials. Mr. Alder was born at Reading, Berkshire, and educated at the Langton College, Canterbury, Kent. He was with Sir Alexander Stenning, F.R.I.B.A., and W. Jennings, F.S.I., at Canterbury, as a pupil for four years, and for two years with J. F. Duthoit, A.R.I.B.A., of Dover, as an assistant. Mr. Alder left Dover during the early stages of the Boer war with the first contingent of Yeomanry, and subsequently was attached to the 77th Battery of Field Artillery. During his two and a half years at the front he saw some particularly active service, for which he possesses the late King and Queen's medals with seven bars. On the conclusion of hostilities he returned to the more peaceful profession, and was with Messrs. Stucke and Bannister, of Johannesburg, for some six months, after which he entered the Town Engineer's Department, where he has been for the past nine years. He is known to the architectural and building community probably as well as his immediate chief, Mr. Waugh, and in addition to the ordinary work of his office, has made the subject of bioscopes a special study. He framed the existing local by-laws controlling this form of entertainment, and it speaks well of their working when the absence of trouble and panic in this town are taken into consideration. He is honorary secretary of the Transvaal Institute of Architects and registrar of the Association of Architects. The evening sanitation classes at the Transvaal University College are conducted by him, and he is to be congratulated on his recent success of piloting 75 per cent. of his pupils through the recent examinations.



Mr. Morris, in submitting his paper, said: This subject which I have chosen has not been selected at random. It is because of reasons which I shall put before you later that I have decided to deal with colour in architecture.

At the outset I wish to state that I do not pose as an authority on this matter, and, further, that I have not had opportunities for independent research beyond some little I have seen and what I have culled from studying this matter in reading; this, with some of my own thoughts and ideas, I am now placing before you.

What is Architecture?

It would be well to begin at the beginning of things, and so I ask, in the first place, "What is architecture?" To this the simple answer to you here is, "That it is the art of building," which must not be confounded with the "science of building," nor, on the other hand, must we get mixed up with what I am pleased to call "brute construction." By "brute construction" I mean that type of work from which all mouldings and ornament are shorn; in other words, when architectural construction has little or no architectural clothing. But the art of building is that happy medium where all the traditions of the various crafts and trades are upheld—where wood is used as wood, and metal as metal, and where proper materials are used so as to convey the right sense of building.

Making it an Art.

The next point is, what assists in making it an art? And to that I say it is these subtle and almost indefinable things, which are all important; the basis of all being proportion and scale. We have mass, and the balance of parts; we have the proper ratio of solid to void; and again, there is the contrast of plain surface to enrichment; we have the mystery of shadow; then there is texture, and also colour in architecture. Now, while this comes last on my list, it is not because it is always a final process, such as one might imagine as being applied with a brush after the structure has been erected, nor because it is by any means of least importance, but because I wanted to exhaust, in skeleton form, a complete list of what constitutes architecture before coming to the subject now being dealt with.

Before proceeding further, I may say that along with colour must be taken shadow and texture.

We must admit that all architecture is coloured: it is impossible to escape entirely from colour in architecture.

In too many cases the general feeling with regard to colour is that it is applied on the surface and is not the colour of the material or materials of which the building is constructed. This is the opinion of most laymen, and I am sorry to say of not a few architects, who ought to know better.

The Love of Colour.

Now, is there or is there not a natural love of colour? We must admit that a strong love of colour is almost universal. A good instance of it is to be found in primitive peoples, when objects were not only coloured, but done in bright tones. The East, owing to its climate, was famous always for vivid colouring. We know of early man who put colour on his skin, and a little later—I am dealing with the development of civilisation—man wore garments or clothes, which, owing to the climate in which he lived and the material of which they were woven, go to prove that such were worn for æsthetic reasons only. Now as things move onwards—I refer more particularly to Egypt and the East—is it not a simple step from the decoration of the body and afterwards the clothes to the embellishment of the habitations of mankind? This may not be justifiable reasoning, but to me it is quite a rational theory.

Application of Colour.

The probable reason for the application of colour was not only a natural love of it, as I have said, but was also the desire on the part of early man to have his handiwork made conspicuous—this is quite natural and a very human trait, and observable still to-day; for do we not find an individual who makes his main cornice just higher, just richer, or just heavier than those on each side, or who adds a gable or some such feature, and by dwarfing the adjoining properties gains importance for his. This is what we might call a lacking in modesty!

It must be admitted, right off, that if we do know and appreciate the strong factor colour is in architecture, we—that is, we Britishers—have been at exceptional pains to stifle within us the natural desire for expression in our work! Who has not heard of the grey architecture of England? But in this case it is as much a negation of colour as is possible; though the mere admission of it proves

that there is or should be colour in architecture in general.

The Greatest of all Arts.

In architecture, as the oldest and the greatest of all arts, the study of colour cannot be neglected. We must realise the important part colour takes in nature, therefore it should not be ignored in architecture.

Herodotus, who for a very long time was regarded as a highly imaginative and extravagant romancer, has now been proved to have been an accurate historian.

There are architectural evidences of the fourth and seventh stages of the Temple of Borsippa being covered with gold and silver; while at Southern Ecbatana the entire woodwork was coated with plates of gold and silver, and the whole building was roofed with silver tiles.

Egyptian Architecture.

It is a matter of common knowledge that the architecture of Egypt was coloured. Much of the architectural ornament was in cave relievo, a treatment in which the figures, birds, and flowers were cut in the granite or basalt and carved in low relief, the surrounding surface not being cut back as a natural ground. These figures, along with the hieroglyphics which formed such a pleasing surface treatment, were coloured in red, blue, green, and yellow. Later on the frieze became the peculiar field for decorations where the horizontal band was emphasised, and scenes depicting the various pursuits and occupations were represented on it.

I have recently been reading a book which, though principally of archæological interest, is also of great interest to the architect. It is called "Crete: The Forerunner of Greece." The date at the best period, which is called the Golden Age, is about 1500 B.C. Crete came after Egypt and before Greece; it is the child of the former and the parent of the latter. All this was unsuspected until fully ten years ago. At Knossos, the capital of King Minos, the most valuable finds have taken place. What concerns us most here is the mural paintings, which are said to be excellent as regards colour. They are realistic and full of life. We have the "Youth Gathering Crocuses," "The Pheasant-hunting Cat," "The Cup-bearer," the best known work so far of Minoan art; and "The Snake Goddess." The richest decorations of Minoan rooms consisted in elaborate mural paintings within formal borders. Low relief and painting were often combined. This, by the way, is a most beautiful form of decoration. In the poorer houses of Gournia the finish of the walls was usually a very light bluish grey; in some few cases is found a colour somewhat deeper in shade than Pompeian red.

Greek Architecture.

It would be a pity to pass on to Greek architecture without making reference to the Babylonian and Assyrian decoration. The buildings were usually rectangular, with arched openings. The lower part of the walls was covered with alabaster slabs carved in low relief with scenes of the chase and war; while the wall above was either in enamelled brick or in coloured stucco. The Babylonian bricks were modelled and enamelled in turquoise blue, yellow, white, and black. The enamelled bricks of Assyria were neither so good in colour nor in the relief work.

It is a great shock to people who have hitherto believed that Greek architecture was an architecture of form to have it proved, and that undeniably, too, that the Greeks did not rely on form only. Its predecessors were clothed in glowing colours, in many cases produced chiefly by a covering of metal, usually bronze and sometimes gold. There can, therefore, be very little surprise that the architecture of the Greeks was notable for its colour—although the colours need not of necessity have been crude or garish. There was the accepted idea of the clothing of the constructional parts of a building with stucco and terra cotta. In the case of certain Greek temples which were built, some in stone and some in marble, all were painted. The usual method of painting the walls was in preparing them first with a thin coating of wax to receive the colouring, which was probably quite delicate, and doubtless the wax had a mellowing effect. It would seem that a column with deep flutings should be light in colour, like the Ionic columns of the Erechtheum, which were stained light yellow, while columns with little or no fluting should be dark. An example of the former type is the Doric shafts of the Parthenon, which show traces of a fairly dark red colour. There were the really strongly coloured guilloche and fret, and the decorative sculpture was thrown upon a background of vermilion or ultramarine.

Colour in the Middle Ages.

Let us now come on to the Middle Ages, where we find colour used obviously because colour was wanted. Let us study with care and reverence the work of this period, the glass, mosaics and marbles, and the frescoes, for we are quite unable in these days to excel them, or even equal them, for refinement and for strength.

Take the glass at Chartres and Bourges. At the former I have seen the shafts of light streaming across the choir and throwing a dapple of the most beautiful, rich, and well-balanced colour imaginable on the wall opposite. There are the mosaics of Ravenna and Monreale, the Opus Alexandrinum of St. Mark's, and the well-known pavement in Siena of pictorial subjects in dark green and mastic in white marble slabs. There is the painted ceiling at San Zenobia, then there is the mosaic of the sanctuary vault at San Vitale at Ravenna. We have the striped work at Orvieto, one of the most interesting examples of Italian Gothic; it is an instance of the use, internally and externally, of striped work of alternate courses of colour, which are produced by black basaltic lava and yellowish-grey limestone. There are the early frescoes in Italian and also in French churches. In textured marbles one of their chief sources of beauty is the transparent play of colour. It was much used in Italy for lining up the walls of the buildings—it was purely a veneer—and was arranged in bands and squares or panels. Of this latter there is no better example than the Duomo at Florence.

Colour and Harmony.

Having dealt with the history of colour in architecture, the next matters for consideration are the laws of colour and harmony and contrast.

Every building ought to have good and harmonious colouring. I think we can all admit that. The bad

division of colour masses and inartistic colour produce the accentuation of unimportant parts.

If in architecture we do not have the proper subordination of ornament, we get plateresque; and similarly colour must not be too obvious or too glaring.

There should be gradation in colour, such as a grey stone base with red brick above, with probably grey stone, granite, or marble features of some sort on the first floor, and with a capping of strong red.

There is a justifiable action which might be called "focussing," by having special features slightly accentuated by being in stronger colours, or even a different colour. But this would need to be done with the greatest care, and at the same time with the most masterly ability, or else we shall get over-contrast, which absolutely ruins the building. Of course, if this opposing colour which has had such disastrous effects be used in a colour scheme most sparingly, it is of the greatest value, whereas, used in anything like masses, the resultant effect is garish, vulgar, and bizarre in the extreme.

Contrasts.

While over-contrast is to be studiously avoided, inter-contrast is essential to give colour its full power and interest. There is a natural law in which, under normal lighting, the richest colour is in the half-tones or the other way round, the stronger the light the paler the colour; on the other hand, when the light is less strong the colour will be richer.

In exteriors where varied colours enter, cornices with their undersides, also undercut projecting mouldings, should be dark. Architects must not use their richest colours in the high lights. There is a possibility of a certain variety in colour being got by texture; different forms of surface, and slightly rougher treatment and less machine-made materials give that texture which produces variety in colour and is responsible for that element of interest which is so desirable.

There are those wonderful colours so difficult to handle and so effective in the hands of a master. I refer to the uncertainty in many cases as to whether the tendency of a given colour is in one direction or another. There are many examples. There is a green which is quite a grey when put alongside a strong green, but in conjunction with a silver-grey becomes a decided green. There is the terra cotta which is only a warm brown when it is in juxtaposition with carmine, but when placed in the neighbourhood of a yellowy brown, a burnt sienna, a brown ochre, or even an Indian red, becomes a fairly striking red.

Interior Decorations.

Of course, the real and admitted place where there is genuine scope is in the interior decoration of buildings; while, of course, there is no place where the architect's original conception can be more easily upset. But one is untrammelled and unfettered by what is existing, such as the difficulties one has to contend with in reconciling the exterior of a new structure to some degree of uniformity with buildings already in existence.

I think I am telling the truth when I say there is the cult of the White Home. It is all the vogue; but, however, does not always meet with that success

which is anticipated. This is not in any way brought about by the tone of the white, nor its quality, nor the manner in which it has been applied, but because there is not enough good colour otherwise to withstand the bleaching effects of the white. There must be really good and strong colour and plenty of it. At the same time, there must be enough darkness in the colour scheme to preserve the balance. This darkness may be got in a hardwood or stained floor, dark furniture, of which, by the way, the lines must be good, as one cannot escape at very frequent times from getting it silhouetted against the wall. There must be rugs and mats, preferably Eastern, hangings with plenty of rich colour, pictures whose first essential should be to give a decorative effect; blue china is helpful, and also metalware, because of the reflected light which goes so far towards making an interior interesting.

I do not state as a principle that the only virtue of pictures is a means of so much colour in decorating a room. To give pictures which are really worth it the very best setting, they should be hung on a wall of warm brownish grey, a silvery brown, or a very soft and dull green.

Colour Neglected.

My own feeling in the matter has been that colour has almost always been neglected in modern architecture, but my chief reason for taking up this subject is because at some future date when—or if ever, I cannot undertake to say—re-inforced concrete will be in more general use, and when it, as a material, has influenced architecture, I can foresee the gradual elimination of form, in which case more and more reliance will need to be placed on colour for effect. Of course, I expect we shall cling to our traditions and customs long after the time for their continuance has passed. We know that in early times wood construction was usual, and we find in the case of the Temple of Jerusalem that even although it was built of stone, traditions were carried on and it was covered entirely with wood and gold. Josephus says: "So that there was no part inside or out which was not gold." We are aware of the concrete work done by the Romans and how they painted on it; and if concrete is going to come into general use, I can see no earthly reason why, in this respect, history should not repeat itself, more particularly if it be the work of a man who can with all honesty claim to have mastered the art of colour in architecture. (Applause.)

Discussion.

The President said: I take it that the author aimed at proving to what a great extent colour is related to the fine arts in general and to architecture in particular; also how colour manifests itself in every one of the fine arts. I submit that two fundamental methods exist which govern the application of colour when used in architecture. The first consists of a deliberate use of broad colour in masses, the second of treating a structural design by the colour decoration of its detailed ornament, with or without the broad massing of colour.

In the first case, colour is accepted as a coherent part of the physical structure as a whole; whereas in the second it is applied in the nature of ornament,

even though applied to a portion of the physical structure. In the latter case it becomes a decoration and does not represent an essential in the structure's conception. One may be styled colour in mass and the other colour as ornament. When colour is applied as a thin non-structural skin after the architectural structure is completed, it must be considered a purely decorative scheme as distinguished from the art of building in colour, which is constructive in character and therefore purely architectural.

Pigments, stains, mosaics, metallic casing, etc., should be considered as decorative rather than as structural art, but if coloured material either in mass colouring or detailed ornament is adopted, we are then building in colour as distinguished from decorating in colour.

Difficult to Fix Rules.

It seems difficult to fix rules regulating the precise relation and use of colours in architecture. The whole thing depends so much upon instinctive taste, but there are some fundamental principles that seem to apply generally to a scheme. For instance, a building of several stories may have the superimposed mass of dark red brick carried by a storey or two of white marble, which material we know is harder in texture than the brickwork; but we feel, for all that, that the relative colour strength in the mass is unsatisfactory and suggestive of undue labour being imposed upon a chaste material that could be better employed elsewhere. One feels instinctively that it is irrational to support a great mass of heavy-coloured material upon a lighter one, and that by reversing their positions our natural and artistic taste would be better pleased.

The Surface of a Building.

A colour treatment to the exterior surface of a building, which of itself suggests a mere superficial skin, at once suggests a lack of physical weight, and produces an impression of insecurity that destroys architectural rest and the feeling of stability. A large field of coloured faience or tiles, or of thin slabs of material which by its application fails to express the principle of constructive homogeneity, often suggests inherent weakness and an apparent inclination to fall. By this I mean that the mere suggestion of instability in architecture caused by the improper introduction and application of superficially applied colour jeopardises the conceptive design as a whole. Physical weight, as evidenced by a judicious selection and distribution of colour, is an inherent primary element in architecture that cannot be over-estimated.

But polychromatic design combined with sculptural or plastic detail in relief is a very different proposition, for by such treatment the effect of superincumbent weight is almost eliminated.

I often feel that the plain whitewashed walls of many of our South African homes makes the blue sky bluer and the red tiled roof redder than any other exterior treatment could do.

Three Ideas.

Mr. W. J. Delbridge, A.R.I.B.A., in the course of a critique of the paper, expressed his thanks to the reader for its lucidity and interest, and complimented him upon its wide range and the modesty of the author. He thought, however, that criticism might

be directed against three ideas which the paper sought to establish or confirm.

Greeks and Colour.

In the first place, dealing with the use of colour by the Greeks, the author was anxious that one might not be shocked by the idea that the Greeks used colour. He (the speaker) was of opinion that the impression given by the paper of the Greeks using quiet tones in mass was much more of a shock, for the idea was contrary to the logic that produced the masterpieces of Greek architecture. In these there was a notable absence of middle tint, high light and deep shadow combined with strongly striated effects, both horizontally and vertically, being dominant ideas. The crystalline surface of the marble employed, which produced a sparkling effect and strongly reflected light, combined with this absence of broad surface, demanded hot and strong pigments. The use of wax in the manner suggested by Mr. Morris might well be doubted when one considered the masterpieces of Grecian architecture. It was possible that in minor works, where recourse was had to plaster for covering porous building stone, such a method might have been adopted, and a similar effect thus gained to that produced by the Byzantine craftsmen in later days, who saturated the surface of lukium with oil. Such a treatment would then demand the application of thick colour renderings, in high lights, to prevent the running of the wax referred to. The Greeks understood plane recession in its entirety, and the speaker recommended members to read the remarks on that subject by Professor C. J. Holmes in his "Science of Picture Making," the author being as eminent for his knowledge of other phases of Greek art as was Professor Lethaby in the sphere of architecture. After reading the principles there enunciated in a manner consistent with the Greek spirit, it would not be possible to think of soft colours in relation to the best in Greek architecture, which ran the gamut of decisive notes only.

It was unfortunate that the paper did not deal with Byzantine architecture, which, since it carried on Hellenic traditions, brought out many ruling colour ideals that must have obtained in the Periclean age with great clearness. The same remark would apply to Pompeian decoration.

Nations Love of Colour.

In the second place, the paper sought to establish truth in the phrase, "the grey architecture of England." This phrase was founded on a misconception similar to that underlying the idea that a Briton hid his feelings. Both ideas had been cleverly disposed of by Gilbert Keith Chesterton, and it was impossible adequately to enjoy the full flavour of the estimable joke enshrined in that author's work, "The Napoleon of Notting Hill," except one realised how deep and strong was the English love of colour. The people who accepted the colour of Disraeli's ties had also built Fairford Church in the County of Gloucester, whose windows form the Mecca of pilgrims in love with colour. Time would fail to tell of the painted choirs and rood screens of the West or the mural paintings of which every year witnessed discoveries. Had the myrmidons of Henry VIII. but stayed their hands, it would be possible still for Englishmen to

show with pride how vital a part colour played in their architecture while it was still part of the nation's life. In our own days, there had succeeded to the class of "nil admirari" those who, anxious not to offend taste, eschewed all colour, but it was noteworthy that in a revived interest in architecture there were signs of a return to earlier and better things.

Modern Architectural Composition.

In the third place, Mr. Morris had alluded to the strong red skyline favoured in modern architectural composition. The speaker was sorry to see how greatly English architects of the day were obsessed by this idea. Against a dull background such a thing was permissible, but a strong red line or mass against a bright blue sky was to be deplored. In other times, hand-made, blood-dipped, sand-faced tiles, resplendent with many tones, did no injury to sight. Men in lowlands put up red ridges with wide white plaster joints, placed old bottles in ridge ends, and soaked the margin tiles in strong waters or put gay crestings against the blue. These men had a feeling for skylines which our favourers of the strong red line utterly lacked.

Reply by Mr. Morris.

After some remarks from Mr. R. Sladdin, Mr. Morris, in reply, said that no one could be more interested in, or be more anxious to hear, the views of others than the writer of a paper could be, at least such was his own personal feeling. He thought Mr. Dellbridge was under some misconception, for there was one thing which he (the speaker) was always careful about, and that was the avoidance of a harsh skyline; he therefore failed to comprehend how Mr. Dellbridge could construe any of his words as advocating such a thing. He disagreed with him with regard to the use of strong colour only in Greek architecture, and was much more inclined to believe that the general wall surfaces were light, while if reference were made to his paper it would be seen that he fully admitted the use of strong colour in parts. (Applause.)

"THE AFRICAN ARCHITECT" COMPETITIONS.

No. 6.—Sports Pavilion.

These competitions are established to encourage young students in the architectural profession.

JANUARY SUBJECT.

Competition No. 6. — A SPORTS PAVILION suitable for Club House for Golf, Cricket or other Sport, say for 300 members. Provide accommodation for Caretaker, Refreshment Room, Dressing Room and Lockers, Sanitary Arrangements, Lounge, etc.

Designs to be in before January 20th, to enable decision of judges to be announced in February issue.

Judges: Messrs. Alder and Dowsett.

General Conditions for the Competitors.

(1) All designs to be forwarded to the Editor of "The African Architect," 17 and 18, Provident Buildings, Fox Street, Johannesburg. P.O. Box 4651.

(2) There must be at least three entries in each subject.

(3) There is no entrance fee. A sealed envelope, with the competitor's name therein, must accompany each design attached thereto, no name or nom-de-plume to appear on either envelope or design.

(4) In every case, though "The African Architect" reserves the right of publication, designs sent in will be the property of the competitor.

(5) Designs must be sufficiently prepaid for return postage.

The competitive designs will be submitted to the gentlemen above mentioned, whose decision shall be final.

CORRESPONDENCE.

Letters for this section should be written on one side of the paper only. The writer may adopt an assumed name for purposes of publication, but he must in all cases furnish his real name and address to the Editor.

ARCHITECTURAL COMPETITIONS CONTROVERSY.

SIR,—I feel constrained to reply briefly to a few points raised in your November issue in this connection.

While several of your correspondents find fault with some of my suggestions—and likely enough with good reason—it is unfortunate that the most sweeping condemnations are unaccompanied by suggestions which would help in the solution of the point before us.

Fair Competitions.

If in my paper I suggested that "most large buildings won in competition by architects of repute and others have been got by unfair means"—as Mr. Gibson states—I hasten to correct it, as such was not my intention. My point is that competitions conducted upon the fairest lines possible still leave so much to chance that they rarely lead to the best results. In all other competitions these faults are magnified; and that in both types, the system as a whole entails such an enormous amount of wasted and unpaid labour that it cries loudly for improvement.

A Form of Piracy.

It might be added, further, that an unwholesome device which has grown up round the system is that of agitating for a public competition for a piece of work which has been definitely given to a capable architect, which, to my mind, is nothing better than a form of piracy.

As Mr. Morris truly remarks, we know competitions are likely to continue for some considerable time, but we must aim at establishing them upon a sounder basis.

Mr. Gibson, however, seems to regard competitions generally with every sign of favour, and as outstanding instances he mentions two of the largest recently held in England. In regard to the Liverpool Cathedral competition, I would ask him where is the fairness meted out to the legitimate winner of the original competition, Sir William Emerson? Was not this work fairly won by him? Is this Mr. Gibson's idea of a properly conducted competition? In this instance, I might further mention that the premium paid to the winner was £500, whereas the drawings cost him nearly £1,000. (These figures are from memory and may only be approximate.)

County Hall Competition.

Although in the County Hall competition it is true that a young enthusiast fairly won his laurels over the heads of many shining lights of the profession (and all honour to him for it!), how does this help us in solving our problem? It might further be remarked that, in spite of the unique temptations of such a competition, eight eminent architects had to be guaranteed premiums to ensure their entering; a sufficiently good proof—if one were needed—of the attitude of these gentlemen towards competitions.

Opinions Differ.

As to the suppositious figures I quoted, which allowed each competitor one per cent. for his work,

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of course opinions may differ. Anyhow, there is ample margin in my original statement to take Mr. Gibson at his own valuation and still be very fair within the mark. Thus the actual cost of production of such as we are discussing I can take from a parallel case of recent experience and price at about £200. Then, if thirty such are submitted, the promoters secure the value of £6,000, and pay only £300 in premiums. Is even this Mr. Gibson's idea of a sound economic system? He further states that competitions are held "for the benefit of the young enthusiast"; contrives to drag poor Brunelleschi into a scene where he is ludicrously out of place, and gives it as his opinion, that vulgar commercialism must not enter into the question. If his altruistic soul so spurns any sort of remuneration for his competitive work, I imagine his youthful enthusiasm will get some severe shocks in the process of its development.

Selection of Competitors.

On two or three sides correspondents object to my suggestions for the selection of competitors. That any method is open to some objection we all know, and we can only hope to find the course with fewest pit-falls.

Mr. Robertson, after condemning the suggestion

that rough sketches only should be submitted on the ground that competitors would not abide by it, proceeds to disturb his own wickets in the same over by setting forth virtually the same proposal as the only sure way of getting satisfaction!

I venture to think that original suggestion (b) for limiting competitors by the inspection of buildings and photographs has more to commend it than is fully realised, though in certain instances, I admit, it would be difficult of execution. But, where possible, it is valuable, in that it goes far to overcome that ever present difficulty of realising the difference between a building on paper and in actuality. Neither a professional assessor nor a lay man can judge nearly so well of an architect's ability from his drawings as from his work. Surely we have not forgotten when to find the proof of the proverbial pudding? It is true that the method would tend to reduce the number of youthful enthusiasts; but instead, the promoters would probably gain by averaging a far more capable set of competitors, and if their intention is to secure the best possible building, this is a sound and legitimate system where it can be applied. I certainly do not think the younger members should be debarred from competing altogether.



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Now, sir, while I quite admit that various opinions must exist upon many of the details under discussion, it is at least satisfactory that your correspondents seem to agree about competitions classed under heading "b" in the original paper.

I venture to enclose the following advertisement which has lately been appearing in the "Cape Times," which speaks for itself:

"NOTICE.—Drafts, accompanying Tenders for the execution thereof, are hereby invited for the erection of a Cruciform Church at ———, with floor space for 600 seats, four galleries exclusive.

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Is our inability to shake hands over minor matters going to tolerate such impossible movements as this? Why should not the Institutes circularise their members asking them to sign an undertaking not to participate in any public competition which cannot be brought under class "a"?

With apologies for trespassing so much upon your space.—I am, etc.,

F. K. KENDALL.

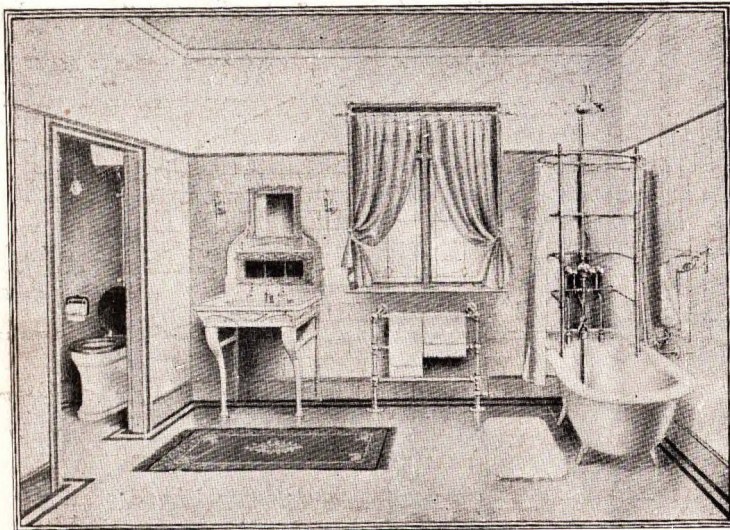
Cape Town, November 27th, 1911.

OBITUARY.

The death has occurred at Sea Point of Mr. S. Wierda, at the age of seventy-three. The deceased came to South Africa in 1887 from Holland, and for fourteen years was Chief of the Public Works Department under the old Z.A.R. His first work after arrival was in connection with the designing and erecting of the Parliament Buildings at Pretoria, at a time when all material had to be conveyed by ox-wagons, and his last work for the Z.A.R. was the erection of the magnificent pile of buildings known as the Palace of Justice at Pretoria.

* * *

The very sudden and utterly unexpected death of Mr. David G. Driver, the late secretary of the Architectural Association for the past twenty years, will be deeply regretted by every member of the profession. Mr. Driver, who was only forty-two years of age, had long seemed to be the symbol and personal representative of the Association and all its interests, and he will be sorely missed by all connected with that thriving institution. He was for many years secretary and clerk to Mr. W. D. Caröe, F.S.A., and in the autumn of 1891 (three years before Mr. Caröe became president), when the new scheme of education under a paid staff was being started, the committee of the Association resolved to appoint a paid secretary to ease the labours of the honorary secretaries, and selected Mr. Driver to fill the post. The choice proved an admirable one.



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INDIAN ART AND ARCHÆOLOGY.

"East is East, and West is West," especially in art and kindred matters. Mr. E. B. Havell, late principal of the Government School of Art, Calcutta, and the author of several important books on Indian art, is convinced that "the Public Works and Educational Departments as now maintained for propagating European architectural ideas and methods of art teaching have been sapping for the last fifty years the foundations of Indian art and architecture." He suggests, therefore, that India would gain if this Department were reduced, and he agrees, of course, with Lord Curzon that the termination of the appointment of Mr. J. H. Marshall, Director-General of Archæology, is greatly to be deplored. The fact is, the importation of European ideals into India has been no more successful in relation to artistic matters there than the similar influence has been on Japanese art. A Western mind is not able to grasp the symbolism of native art, and academic conventions cannot be applied with advantage to the art of the hereditary craftsmen of India. Part of the usefulness of the Archæological Department lies in the help it gives in directing native talent, the outcome of special traditions; and to minimise its power is to defeat the ends of true progress.

BACK TO BACK BUILDINGS

A JOHANNESBURG EVIL. PROTEST BY DR. PORTER.

At the annual congress at Cape Town of the Royal Sanitary Institute (South African Branch), Dr. Porter, Medical Officer of Johannesburg, read a paper on "Back to Back Dwellings and Methods of Amendment." Inter alia, he said: The obvious *raison d'être* for back-to-back rooms is, of course, their cheapness of construction and the desire to crowd dwellings on area, two factors which, perhaps as much as any others, make for the production of slums. In England back-to-back houses are usually two-storeyed, and consist of a living room with one large bedroom or perhaps two small rooms thereover. They are generally built in continuous rows, but in some towns are arranged in separate blocks of four; each house then has, in addition to the front wall, an independent side wall in which windows may be provided and a considerable amount of diagonal ventilation thus secured.

In South Africa the back-to-back dwellings one sees are usually (a) single-storeyed rows of stuffy miners' rooms; annexe bedrooms to even fairly good hotels and boarding-houses; (c) business offices. Unfortunately two two-storeyed blocks of twenty back-to-back rooms for workmen have quite recently been erected on the Rand.

Objections.

The usual objections to back-to-back dwellings are briefly as follows:—

1. The impossibility of securing that free ventilation or perfilation which can be obtained in a "through" dwelling, since in the latter a direct

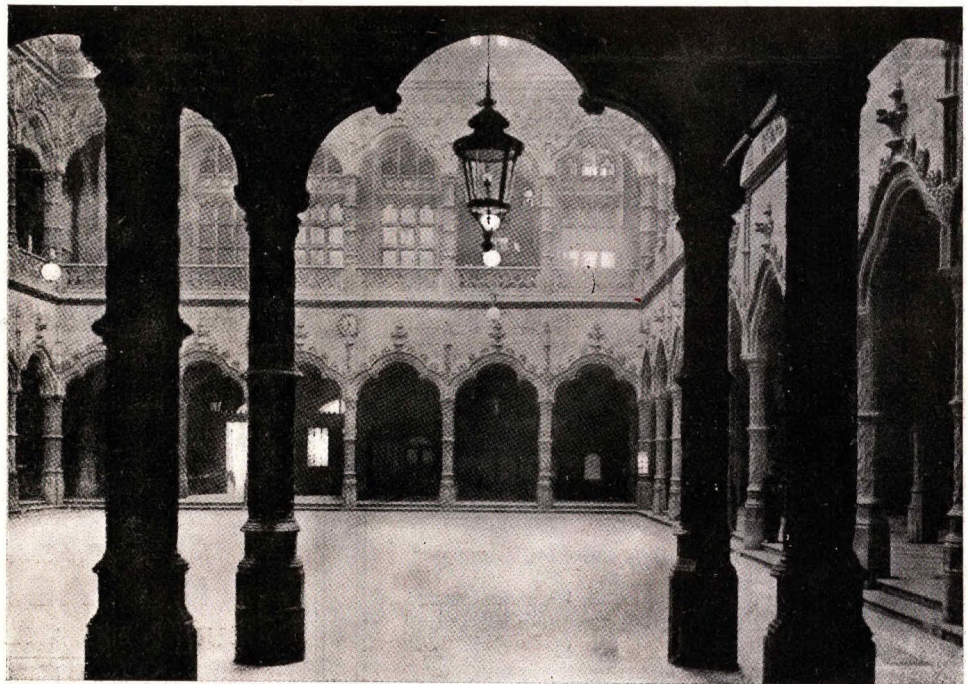
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the back and front, with the result that the air in the rooms becomes almost invariably close and stuffy.

2. In back-to-back dwellings of more than one storey the air of the rooms above the ground floor is much more apt to be drawn from the more or less vitiated air of the rooms below than in a similar 'through' dwelling, since in the latter a direct current of air from the outside can be set up independently on each floor.

3. Unless the orientation of back-to-back dwellings is almost due east and due west, they will probably get insufficient sunshine if (in South Africa) they face south; or too much if they face the north, and in the latter case become unbearably hot. In a "through" dwelling, on the other hand, some portion of the house is in sunshine during part of every sunny day, while in hot weather one side is cooler than the other.

4. Difficulty and inconvenience as to closet accommodation and absence of privacy, owing to absence of a back-yard or a garden.

5. Relatively excessive sickness and mortality rates amongst the inmates of such dwellings.

6. Congestion of buildings on area, favouring production of slums.

Through Ventilation.

Those who still champion back-to-back dwellings assert:—

1. That through ventilation is feasible in every room which contains a fireplace as well as a window, and that this through ventilation may be materially increased by means of special ventilating shafts.

It is, however, submitted that this argument is completely answered by the fact that in the back-to-

back houses of English manufacturing towns, each of the usual two rooms possesses a fireplace, and yet the vital statistics of such dwellings have led Parliament to prohibit their future erection.

2. That the back-to-back house is warmer than the "through" house, and, therefore, entails a smaller expenditure for coals.

3. That where a water-carriage system exists a closet can be provided in an apartment in the basement approached from outside.

4. That the back-to-back dwelling is so much cheaper that the working man can spend more on food and luxuries, and is not tempted to imperil his domestic felicity by taking in a lodger.

Dr. Porter referred to the results of Dr. Darra Mair's enquiry in England, the Transvaal Mining Regulations Commission Report, and a clause embodied in the Local Government Draft Ordinance of the Transvaal. By means of a series of diagrams and models, Dr. Porter illustrated the methods of amendment of existing back-to-back premises, which he advocated. In closing, he urged that it was a most unfortunate thing that in a new country like this back-to-back dwellings should be perpetuated. He did not think that miners, who had to spend the day underground, should be compelled to sleep in rooms that were not properly ventilated. He expressed great disappointment that, owing to the Corporation by-laws, he was recently unable to prohibit the erection of a block of forty back-to-back dwellings in Johannesburg. In conclusion, he proposed the following resolution: "That, in the opinion of this Conference, the continued use of existing, and the

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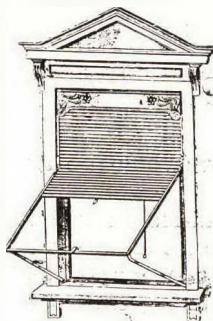
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future erection of, back-to-back and other similar dwellings without adequate through ventilation are highly undesirable, and that prohibitory legislation in this respect is necessary on grounds of public health and comfort.

Discussion.

Discussion followed.

Mr. Kendall (Society of Architects) said that, speaking as an architect, he realised that they ought to take every opportunity of pressing upon other people the great importance of through ventilation of all buildings where it was possible to secure it. In regard to Dr. Porter's remarks about architects, and a fully qualified architect making such a mistake as to design a building which was open to a lot of objections, he thought he might remind them that the term "architect" was at present a very elastic one indeed, because, according to present arrangements, anyone, qualified or unqualified, was entitled to practise as an architect. They hoped that their Registration Bill would soon be brought in and passed through Parliament.

The chairman recalled his connection with Johannesburg in its early days, and remarked that there was a good deal in what Dr. Porter had said, but he did not think these matters would be altered until the people themselves were educated up to it. It seemed to him that the difficulties in regard to back-to-back houses could have been minimised if the people who built them had known what they were doing, by having shafts in the rooms going through the roof. He did not agree with the principle of back-to-back houses; he thought such dwellings were undesirable.

Dr. Porter said he regretted that the chairman should have championed shafts.

The chairman: I don't; I condemn the whole thing.

Mr. Bisset said he thought the further consideration of this subject should be deferred to a future meeting.

Mr. Ewing (Mowbray) said that he was prepared to support the resolution if it were amended so as not to apply to existing dwellings. He proposed an amendment accordingly.

Dr. Porter: I may say that I would rather withdraw the resolution than submit to an amendment.

Mr. Menmuir seconded the motion.

Mr. Ewing said that, in the circumstances, he would withdraw his amendment.

The resolution was agreed to.

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to us the new problem of the range of possible architectural expression in this monolithic type.

Confusing Issues.

In order to avoid confusing the issues, we may at once dismiss from consideration all structures compounded of reinforced construction and the pre-existing methods of building and confine ourselves to those formed of concrete cast in moulds, which will probably enclose, in some manner or other, steel tension members. In regard to these there can clearly be but three possible systems on which the surface left by the removal of the moulds can be treated, as, while each of these is capable of almost infinite variety, it must either be by addition, by simple inaction, or by subtraction that the surface will be determined.

The first of these includes all such methods as plastering, tiling, and other means used for concealing in whole or in part the surface left from the forms. In the case of the second, the forms must themselves be of a character giving the desired surface. In the third the materials used must be such that the erosion or dressing off leaves a face suitable for exposure.

Three Methods.

We do not propose to enter into the question as to which of these three methods may be regarded the more legitimate as a means of architectural expression; indeed, we very much doubt if such a question can be discussed with any profit. Such attempts have so frequently been made, only to result in the bottom being knocked out of conclusions, apparently most closely reasoned out, by the man of genius, who,

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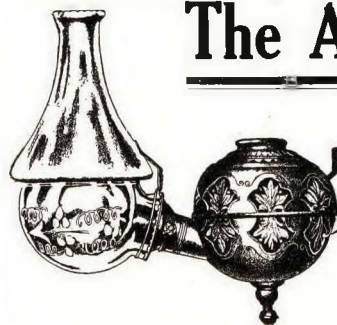
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having ignored them, achieves his aim by processes which are not at the time explicable on any argumentative basis.

As might have been expected, most of the experimental work in all three methods has been done in the United States. There, for some years past, pottery designers have been working out decorative ornament suitable in scale and colour for the embellishment of concrete buildings. A general surface of tiling or of marble slabs, recognisable as slabs and not simulating masonry, has also been accepted in the U.S.A. and on the Continent; while more recently combinations of eroded surfaces with added decorations have been attempted.

Untouched Surfaces.

Again, in the matter of untouched surfaces we have done little here at home in regard to any substitutes for the usual boarded forms, though in cases efforts have been made to produce a surface as clean and uniform as possible.

In the U.S.A. sheet metal forms are in use, having lines or a pattern to mark the edges—a distinct effort to impress on the building the method of its construction. On these lines an infinite variety of effect appears possible, the only limit being the restraining influence of the architects' taste. It might be considered, for example, appropriate to stiffen thin metal forms by a stamped grooving or pattern, and this would leave its impress on the face of the work, suggesting a sort of diaper in relief; again, the metal forms might be made to hold a kind of coarse mosaic, producing a result akin to the opus reticulatum of the Romans. It is obvious that we have by no means reached the limits of possibility in this direction.

Of late, more attention has been given to the system of removing the surface left by the forms, and a number of methods have been used for this purpose. The face may be treated with dilute hydrochloric acid, which removes the cement and exposes the aggregate. The sand blast leaves a larger proportion of the cement matrix exposed, and the same may be said of both the hand and pneumatic hammer work. If it is possible to remove the forms within twelve hours, scrubbing with a steel brush produces a texture much better in its effect than that left by the pneumatic hammer, which picks out the aggregate so that the colour of the matrix only is shown.

Methods of Erosion.

In the case of all buildings proposed to be treated by one of the methods of erosion the selection of the aggregate is of the utmost importance; it should not be too varied in colour and its general tone should be considered; it may be of any shade desired, but a mixture is not only less effective in itself, but has the additional disadvantage that if not kept absolutely uniform the work will appear patchy and over variegated. The mixing and deposition of the concrete must also receive much closer attention than it would otherwise need, the aggregate requiring to be kept to an exact average in size throughout, and any ramming done with the greatest caution in order to avoid packing the stones closer in one part than another. Thus the preparation of concrete suitable for erosion is an operation demanding a degree of skill materially increasing the cost of the work.

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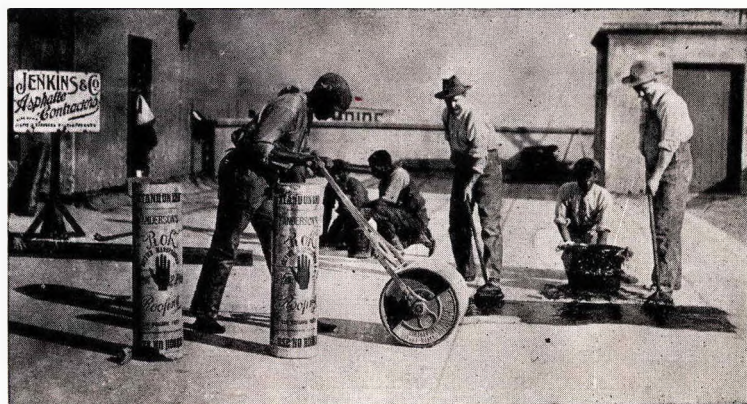


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* * *

THE SOCIETY OF ARCHITECTS:

PRESIDENTIAL ADDRESS.

The opening meeting of the Society of Architects for Session 1911-12 was held on November 16th, at 28, Bedford Square, London, W.C., when the President, Mr. George E. Bond, J.P., delivered an address, in the course of which he said:—

It is with great diffidence that I appear before you for the fourth consecutive year as your president, and I feel that some explanation may be desirable in case there are any members who are not acquainted with the reasons which led to my again occupying this position.

The negotiations between the representatives of the Society and the Royal Institute (in which I have taken a prominent part) being still incomplete, I felt it would be unfair to my colleagues on the council to desert them at this moment, though I assure you that nothing but this fact would have induced me to have accepted renomination, and I am aware that the circumstances to which I have referred are the principal reasons which influenced the council in renominating me and you in re-electing me.

Registration Bill.

At present only the general principles of a Registration Bill have been considered and agreed between the representatives of the Society and the Royal Institute, and much arduous labour and thought will be entailed before its details are ready for presentation, but if the members of the joint committee to whom the duty of drafting the Bill has been delegated can be fully assured of the sympathetic and reasonable support of the members of their respective general bodies, they will be encouraged to proceed and to devote their best energies to the drafting of such a measure as will, when completed, satisfy a very large majority of the profession.

In regard to the effect which the negotiations with the Royal Institute during the past twelve months have had upon the Society, you will already have gathered from the council's annual report that, notwithstanding the difficulties of our position, due to the unfortunate delay in the completion of these negotiations, the progress and development of the Society has been phenomenal, and but for the fact that we considered ourselves in honour bound to observe the spirit of the agreement tentatively entered into between the councils of the Society and the

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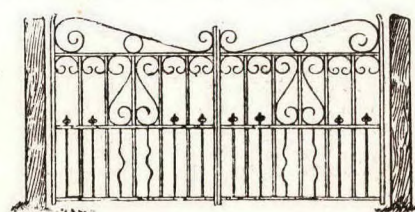
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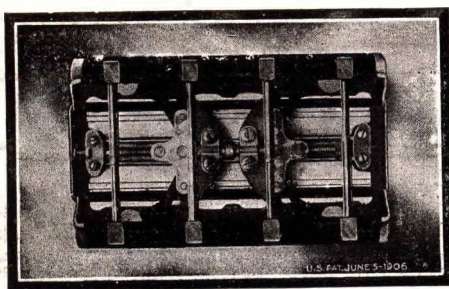
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Royal Institute (which at the time we anticipated would be at once concluded) and which compelled us to close the list of applications for membership, many more members would have been added to the Society.

The Royal Institute.

I ought in fairness to say that the council of the Royal Institute were not intentionally responsible for the delay referred to. You will remember that the negotiations culminated in the terms of an agreement being approved by the council and general body of members of the Royal Institute, which agreement it was arranged should be executed by the presidents on behalf of their respective bodies, and only at the last moment was it found by the Royal Institute that under their charter the council had no power to enter into such an agreement.

The only way that the Royal Institute could get over the difficulty was by drafting a supplemental charter which would give the council power to enter into this agreement.

It is anticipated that this proposed supplemental charter and the new by-laws will shortly be submitted for the approval of the general body of the Royal Institute, who, having already endorsed the principles involved, will, it may be hoped, feel bound to facilitate to the utmost of their power a settlement on the lines of the agreement previously referred to. Subject to the approval of the Royal Institute and ratification by the Privy Council, the whole matter will be submitted in detail to the members of the Society, in which case I feel convinced that they will in the same spirit recognise the wisdom and justice of renewing the approval which they gave it on a previous occasion.

Effects of Registration.

The first effect, therefore, of a Registration Bill will be to prevent any further addition of the unqualified to the ranks of those already practising, and the latter will by the natural process of elimination gradually die out, and this will necessarily be a matter of time.

The second effect will be that none but those who have been properly educated and who possess the necessary qualifications and are able to prove them will be admitted to practice, and as this is a matter which will affect the younger generation of architects it is obviously chiefly a question for them.

It is therefore pertinent to enquire whether they desire registration by Act of Parliament. A plebiscite instituted by this Society and by the "Builder" have proved that eight out of nine members of the architectural profession desire registration, and it is fair to assume that very few young men voted with the minority, and that of these there were none who had spent years of arduous study and preparation for passing qualifying examinations; for these, speaking generally, are the chief sufferers under the present system, or rather want of system. There are many young men on whose education and architectural training considerable sums have been spent, and who possess every qualification to practice architecture, who are obliged to remain in the position of assistants at about the average wage of a bricklayer, or who are even unable to obtain regular employment simply because the profession is overcrowded and there is

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consequently keenness of competition, so that the remuneration of the competent is kept down by the competition of the incompetent.

Apprenticeship.

You may further have observed that the more incompetent a young man may be the more likely he is to commence practice for himself at the earliest possible moment.

If he has been found worthless by his principal during the period of his apprenticeship, the result is that he is advised to try a change immediately the time expires, and if other architects find him equally incompetent as a junior assistant, his only course is to open an office of his own. It then frequently happens that some indiscriminating member of the general public (who has no conception of the duties of an architect), actuated by a desire to do the young fellow a good turn, or more probably because he hopes to get his work done for a small fee, gives him some small commission, and, generally speaking, the completed work is so unsatisfactory that the client resolves never again to trust a young architect, and his reasons are made known very widely to his friends and neighbours. The competent there suffer with the incompetent, and the small commission which the qualified young architect would like to have an opportunity of carrying out, and which he could do in a manner calculated to secure further and more important commissions, is withheld, and probably given to a builder's clerk or foreman, who, although he may not have any knowledge of the art or even draughtsmanship, will generally give his client what he expects at a reasonable price. It sometimes happens, however, that these incompetent young men have wealthy connections, or it may even be that their incompetence is the direct result of the knowledge of the fact that they will not be entirely dependent on their work for a livelihood, which knowledge makes them careless and negligent in their student days. I know instances where such young men, having been given good opportunities, have, with the aid of "ghosts," whose services they could afford to pay for, further assisted by good builders whose general foreman has been subsidised, turned out creditable work which has earned for them fair reputations, and they are now able to employ qualified assistants who are practically responsible for every detail of the practice, except when it becomes neces-

sary to exhibit a figure-head, and they will no doubt continue on these lines for years, securing remuneration which rightly belongs to better men. I have two such cases in my mind at the present moment.

An Injustice.

The presence of such persons in the acknowledged ranks of the profession is a grave injustice to the earnest and thoughtful young architect who has devoted much time in acquiring a thorough knowledge of every branch of his profession.

There are probably some thousands of young men in the United Kingdom serving their articles at the present time not an eighth of whom will ever attempt to pass any qualifying examination, and of whom a large proportion will go to swell the ranks of the incompetent, and thus depreciate to a great extent the general standard of ability and discredit the profession generally in the eyes of the public.

A preliminary entrance examination would reduce this number by at least one-half, while another fourth would be eliminated by an intermediate examination, and I am confident that every young man who has after years of study, proved his efficiency by successfully passing a stiff qualifying examination, must feel that the time has arrived when his competitors must be compelled to submit themselves to a similar test before being allowed to practice.

Overcrowding Professions.

My personal observations and experience have shown me that the overcrowding of the profession and the unfair competition to which qualified men are forced to submit is the direct result of the large influx of incapable and incompetent persons into the ranks of the profession through the ordinary portals of pupilage, rather than the presence of those other undesirables who combine the practice of architecture with some other callings. If they are dependent on architecture for their livelihood and are without means or influence, their only chance of securing even that class of work which does not call for either great skill or artistic merit is to offer inducements by way of reduced fees, by this means obtain employment, and frequently to compensate themselves for this they will further stoop to the acceptance of illicit commissions.

To sum up, I would point out that it is the fully-qualified young men commencing practice who have to bear the brunt of unfair competition; therefore it

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is obvious, for reasons already stated, that it is presumably the young men who will specially desire to support the registration policy which, if successfully carried through, will check such competition, and at the same time raise the status and general standard of practice in the profession.

Examinations.

This will be effected by the institution of examinations so graded as to first of all test a candidate's general knowledge and aptitude for acquiring professional qualifications, followed by a further examination, by which means the unfit would be eliminated, leaving only the capable, to hope that by the exercise of their talents, combined with strenuous and persistent study, they may pass the final test and thus qualify themselves for practice. Such examinations will not merely shut out the incapable in the early stages of their attempts in finding a career, but the knowledge that such examinations have to be passed would have the further effect of compelling the idle and careless but talented young men to diligently apply themselves in their early days to the task of making themselves proficient, and would encourage all those qualities at that time in their lives which would tend to the ultimate benefit of themselves and their clients.

Assuming, therefore, that the young men are convinced that the registration policy is a really practical attempt to solve their difficulties, and that its success is extremely desirable, I venture to point out that the only possible chance of carrying it through will be by earnestly supporting the combined registration sub-committee and approving the agree-

ment to be entered into between the Society and the Royal Institute.

Unity.

There is another point to which little reference has been made, and one to which all our leaders attach even greater importance than to that of registration, viz., that the consummation of the suggested arrangements will be the first real step in the process of attaining complete unity in the profession. The well-being of a great profession cannot be considered merely as a question of to-day, or to-morrow, or even ten years hence; there is a long future before it, and it is with this thought ever in our minds that legislation is proposed. Looking ahead, your leaders see a vista of long years of useful work, progress, and development, under the banner of one great institution, including within its ranks all bonâ fide architects in the United Kingdom, strong enough to legislate within itself for the ultimate benefit of its members, and with sufficient power to compel their obedience to its moral edicts and code of professional honour, and by these means be able to enforce its reasonable regulations upon those outside, with regard to competition conditions and other matters affecting the honour and interests of the profession. Your present leaders are but laying the foundations upon which their successors (that is to say, the more able, earnest, and thoughtful of the young men of to-day) will raise and maintain the superstructure.

Is the attainment of such an ideal worth a little present self-sacrifice? I simply ask the question, hoping it will be well considered by all before a definite opinion is expressed.

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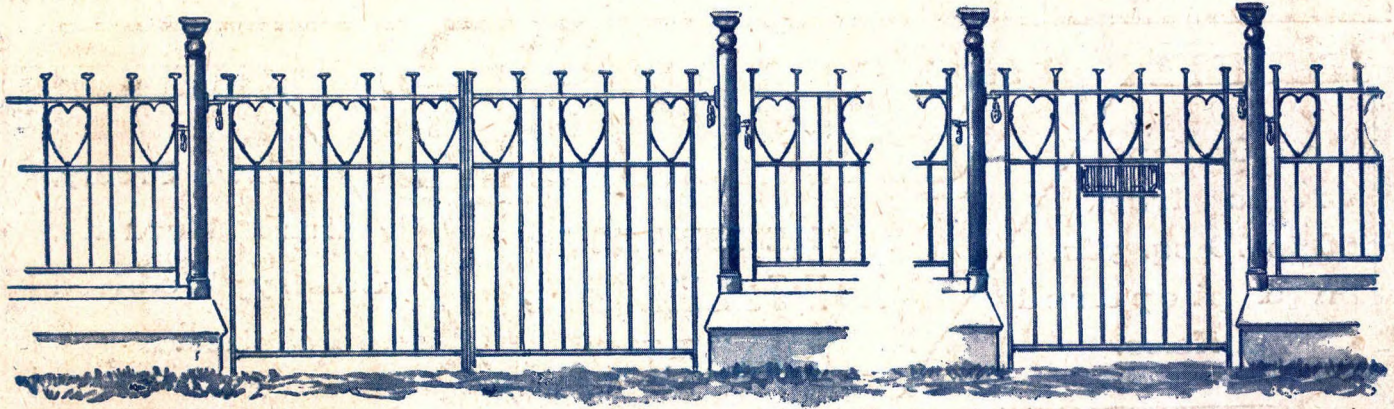
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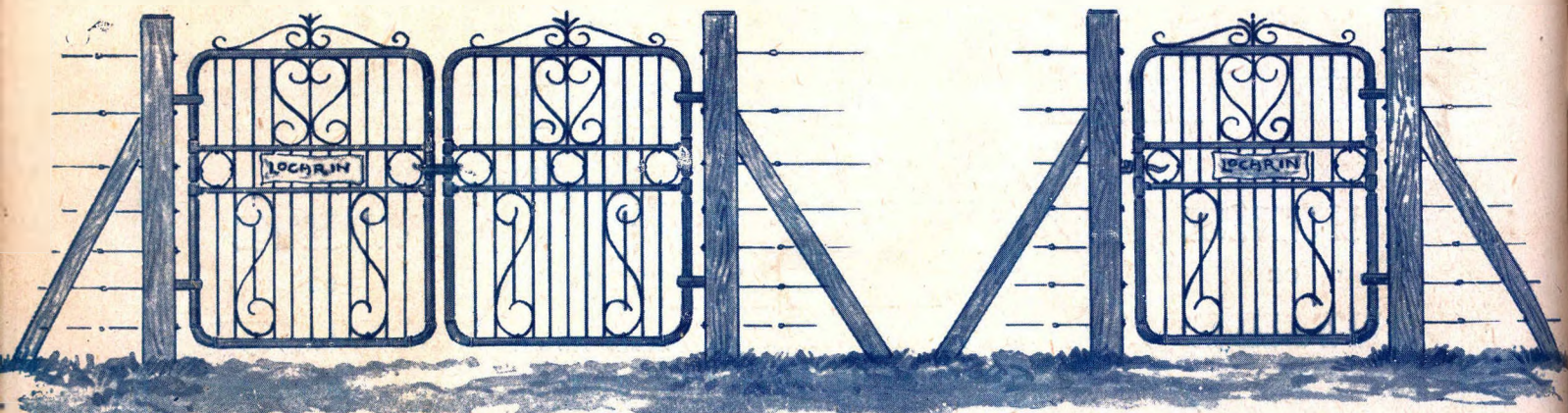
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