N.Z. BUILDING PROGRESS.

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We frequently get enquiries from Architects, Builders, Engineers, &c., asking for names and addresses of suppliers of specialities connected with the various trades. Suppliers frequently assume that because they send out a printed circular or make a call now and then on users, that they have done all that is necessary to "keep the users' memory green." This is quite a mistake. The User must have **instant and ready means of reference** to some reliable source of information that he sees regularly.

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N.Z. BUILDING PROGRESS

Published Monthly by the Proprietors, Harry H. Tombs Ltd.

8 Farish Street ——— Wellington, New Zealand

TELEPHONE 1651 P.O. BOX 481.

Annual Subscriptions:—To any address 8/6 post free, single copies 9d. Note: 1/- will be allowed on this account if paid in advance.

Remittances should be made by Post Office or Money Order. All cheques, plus exchange, to be made payable to Harry H. Tombs Ltd., and sent direct to P.O. Box 481, Wellington.

All communications to be addressed to "**The Proprietors, 'Progress,' Box 481, Wellington.**"

Advertising Rates will be sent on application.

To Our Advertisers—All copy for advertising matter must be in our hands by the 10th of the month preceding publication, otherwise no responsibility with regard to insertion will be undertaken.

The Editor will at all times be glad to receive Illustrated Articles on subjects of interest for consideration, provided the articles are short and to the point, and the facts authentic.

Should subscribers continue to receive copies of this journal after expiry of current year, it will be accepted as an intimation that they are desirous of subscribing for a further period of twelve months.

In case of change of address, or irregularity of this paper's delivery, subscribers should send immediate notice.

Publisher's Announcements.

Our 65th Competition.

We offer a prize of £1 1s. 0d. (together with an additional prize of £1 1s. 0d. kindly donated by the judge), and a second prize of 10s. 6d. for the design adjudged to be the best for a

City Office Block.

It is proposed to erect a block of shops and offices on a section 120 ft. deep by 30 ft. frontage (centre to centre of party walls) with a frontage to a main street and back street. The site is bound by two party walls, two storeys high, 14 ft. and 12 ft. respectively, with 18 ft. and 14 ft. brickwork. The adjoining buildings being old it must be assumed that the foundations will not carry the additional loadings; and further, as it is not possible to treat with the adjoining owners, the party-walls cannot be removed, but permission is given to cut into the party walls to the centre line at intervals.

The site is on reclaimed land 20 ft. deep to the rock and high water 5 ft. from the street line, the nature of the borings indicates that digging to foundation bases may be resorted to.

Requirements.—Shops facing each street with separate lav accommodation, 4 upper floors in series of offices with lav accommodation on each floor. Direct natural lighting and ventilation must be given to each office. The site being limited in width, the owner requires full use made between the party walls.

Drawings required.—Details of construction of foundations to ½ inch scale. Details of storing, etc., as requisite to ½ inch scale. Plans of ground and first floor together with longitudinal and cross sections to ⅛ inch scale.

Mr. B. C. Chilwell, A.R.I.B.A. of Auckland, has kindly set this subject and will adjudicate.

Designs must be sent in finished as above, under a nom-de-plume addressed to "Progress," 8 Farish Street, Wellington, and marked clearly "Sixty-fifth Competition" on outside with a covering letter giving competitor's name, and address of employer. Designs to be sent in by Sept. 21st.

Conditions of "Progress" Competitions

The Editor reserves the right of publishing any or all the designs submitted, and while every care will be taken of drawings, no responsibility is accepted should any loss or damage be sustained. Those desiring their designs returned must send postage to cover cost of same. No award will be made unless at least three designs are sent in for any one competition. Unless otherwise stated drawings are to be in black and white only.

Notice to Subscribers

"N.Z. Building Progress" is posted each month through the G.P.O. at Wellington. If any subscriber should not get his copy, another will be sent him if we are notified in good time. The paper is supplied from year to year only, and if subscribers continue to receive the paper after expiry of the current year, we shall accept it as an intimation of their desire to continue for another twelve months. We undertake to supply the paper for such further term. Notice of discontinuance must be sent to the Manager, 8, Farish Street, Wellington in writing, as no Agent has authority to receive notice of discontinuance on our behalf. The subscription is 8/6 per annum. A discount of 1/- will be allowed off this amount if subscription is paid in advance.

Vol. XIII. No. 12. Monthly REGISTERED AS A NEWSPAPER

N.Z. BUILDING PROGRESS

(With which is incorporated "The Scientific New Zealander")

A Journal for Progressive men interested in the development of New Zealand's Architecture, Building, Engineering and Industries

Editor: Chas. E. Wheeler.

PRICE 9d. per Copy; 8s. 6d. per annum post free. (Note: 1s. Discount allowed if paid in advance.)

WELLINGTON, AUCKLAND, CHRISTCHURCH, AND DUNEDIN, NEW ZEALAND, AUGUST, 1918.

Contents for August

Editorial Comment

"The British Empire Ltd"

We have reached the period when the problems of after the war are prominent in the minds of Empire statesmen. The economic agreements of the Allies are being considered, and although the influence of America will be powerful in preventing, if possible, a rigid exclusion of Germany from trading facilities with the nations with which it has been at war, there is no doubt but that private prejudices against the Hun will have sway for at least a generation. And America, much as we will be disposed to defer to that great democracy with its high-minded statesmanship, will not be disposed to object to a system under which the devastated parts of France and Belgium will have the preference in supplies of material until the ravages of war are, as far as possible, obliterated. And there is another important movement which must be brought to a successful issue. This is the organisation of the British Empire's trade so that it will never again be dependent on outside nations for some of its most important supplies. "Key" industries both in chemical and metal manufactures were shrewdly controlled by German firms before the war, though the bulk of the raw material came from within the British Empire. The zinc corporation which manipulated Australia's large output of that valuable metal is a case in point. At the heart of the Empire, our manufacturers are thoroughly alive to the value of this policy of Empire independence, and it behoves New Zealand to stir itself, and do its share, for there are indications that we have already been left behind by our neighbour, the Australian Commonwealth.

New Australian Industries

From English sources we learn that an important textile firm has decided to open a branch of its business in Australia in connection with the movement to establish new industries there. Although Australia is the greatest wool-producing country in the world, she is forced to import nearly all the yarns that she requires. Tonnage is required

to take the wool to England and send back the manufactured product, and labour and money are unnecessarily absorbed. Another important development which has already come to pass is the establishment in Australia of a large factory by Nestles Ltd., the world-wide business handling condensed milk and chocolate. Since it was announced that the firm of Lysaghts had decided to erect works in Australia several important British manufacturing companies have been considering the question of following on the same lines, partly because they have since learnt to realise the activities of their foreign competitors in this direction. Australia, though unable to ship many of the raw materials which she produces, is very prosperous at present owing to the arrangements which have been made by the Imperial Government for paying for these products, whether shipped or not. Consequently there are large amounts of money constantly waiting to be invested. Those engaged in pastoral, mining, and other Australian concerns, are particularly interested in the new development to secure a more active Anglo-Australian development of the industries of the Commonwealth, as it is realised that an opportunity now presents itself of associating themselves with some of the principal British manufacturers in developing certain industries in Australia which the war has shown to be vitally necessary. So far as New Zealand is concerned, we know of two cases in which firms of high standing have decided to establish manufactories in the Dominion. A branch factory of a well known wire business is to be established in Auckland, and the plans for a large building are in hand. Another important development is at Petone, near Wellington, where Messrs. Lever Bros., of Sunlight Soap fame, have acquired a large works site and some old factory buildings, and are putting in a soap-making plant to deal with their New Zealand trade. We would like to see the Government take an interest in this movement by freeing the Parapara iron deposits from the inertia which has tied them up for many years, and it could well undertake, for the sake of our primary producers, the great business of manufacturing nitrates by utilising the splendid water power resources of the South Island Sounds district.

Providing for Our Soldiers

A policy of brisk development is wanted as an important feature of the big problem of putting our fighting men back into civilian employment. Out of 107,380 New Zealanders who left our shores in the Expeditionary Force, 22,777 have returned. This is but a mild instalment of what is eventually to come, and the problem was easy enough to dispose of temporarily because the returning drafts were small, and spread over long periods. Even now, however, there has arisen a difficulty in placing a number of Auckland ex-soldiers in employment. The organisation to meet this need, the Discharged Soldiers' Information Department, has placed 2,968 men, but 11,490 happily managed without Government aid. We are afraid that this Department is becoming too much of a typical self-contained Government organisation, to which soldiers will look mainly for "a Government job." If it is going to be a real success, a vital factor in the task of re-establishing the soldier as a citizen, it must branch out extensively, secure voluntary aid in all parts of the Dominion, and organise a thorough campaign in favour of preference to the returned soldier. Employers and prominent trade union workers should be asked to actively interest themselves in the Department's work, and the large employers of labour should be asked, as a national duty, to make openings for returned men, though they may be restless and below par in the matter of steady application to their civilian tasks for a while. Government jobs and soldiers' settlements will fall far short of covering all requirements, and we suggest that now is the time for employers as a whole to join with the Government in its repatriation scheme. Prospective openings for returned men should be scheduled up in readiness for the final rush when peace comes. Not only is this a reasonable thing to ask from the standpoint of patriotic duty, but it may well be regarded as a sound insurance policy against labour troubles which will certainly arise in an acute form if a large body of ex-fighting men is turned loose upon an unready and apparently unsympathetic world.

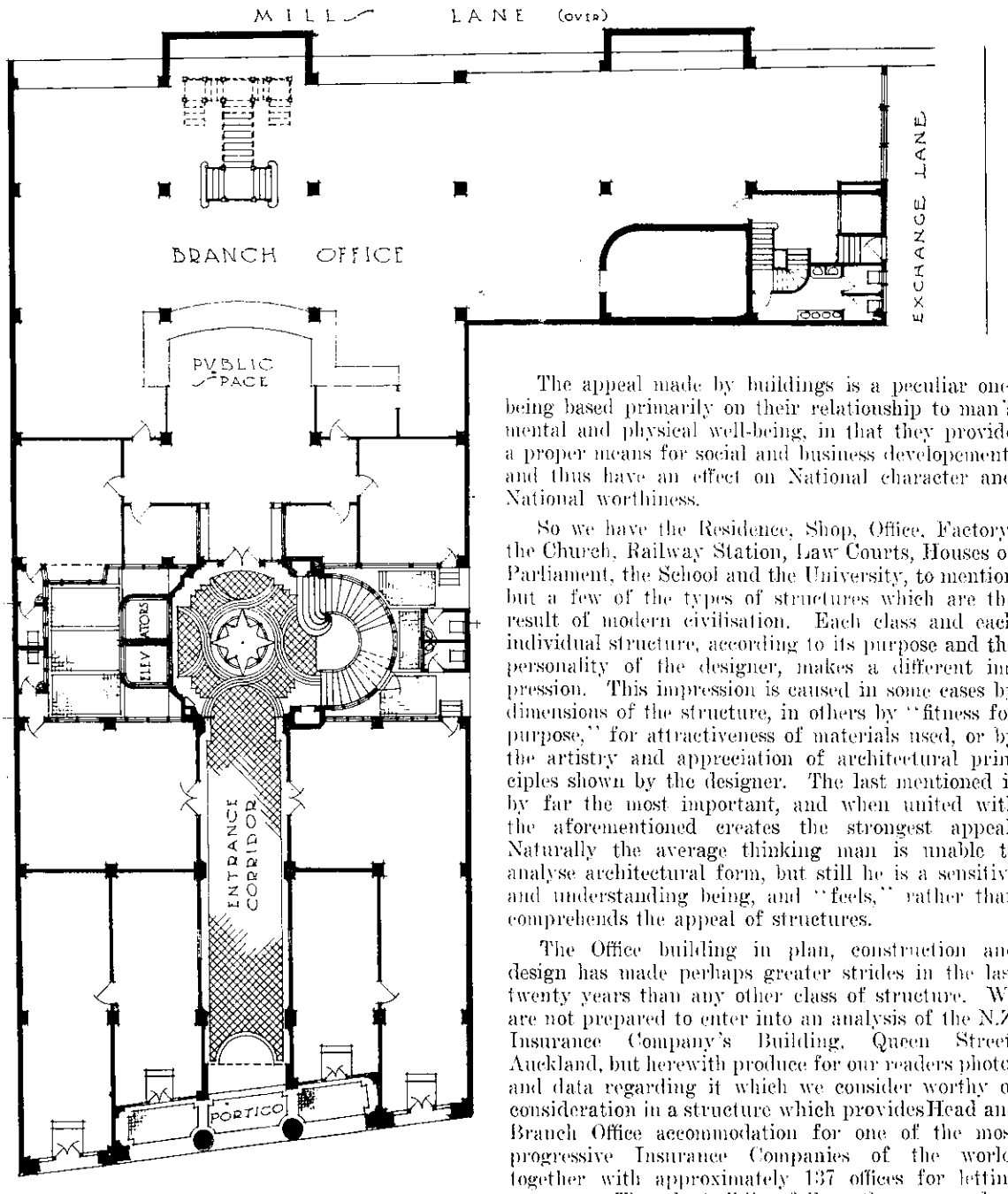
N. Z. Insurance Co.'s Offices

It is with some satisfaction over a fine piece of building done under the difficulties of war time that, in this issue, we give full particulars of the New Zealand Insurance Company's splendid new office in Queen Street, Auckland. This imposing and efficiently planned office block will enable Aucklanders to visualise the importance and prestige of a company which, starting in their midst, has grown to proportions beyond the dreams of its founders. Its business is not confined to the Dominion, and it is a matter for pride that such a company can go into the commercial world and hold its own anywhere. As for its new headquarters, we need not here particularise, but we call attention to the fact that the architects are a New Zealand firm—there was no need to go outside the Dominion for suitable plans and advice—while the principal materials are of New Zealand origin. The fine marble from Golden Bay is used for the first time in an Auckland building. It stands the chisel, and takes a high polish, so that when our architectural ideas expand, and there is a call for great and worthy national buildings, it is evident that we will not need to seek far for suitable material for the purpose. Credit must be given to the New Zealand Government for setting the fashion in the use of New Zealand marble. But for its adoption in the front and back elevations of Parliament Buildings, this fine building material would have remained inaccessible to the industry except at prohibitive cost. It is coming more and more into use for important buildings, and the putting down of a diamond saw plant in Wellington has enabled it to be cheaply worked up, despite its tough structure. The large amount of space given to the description of the New Zealand Insurance Company's building has necessarily curtailed, and in some cases excluded, other matters usually dealt with.

The N.Z. Insurance Coy., Ltd.

Queen Street, Auckland. Recently Completed.

Messrs. Hoggard & Prouse and W. H. Gummer, A.R.I.B.A., Architects

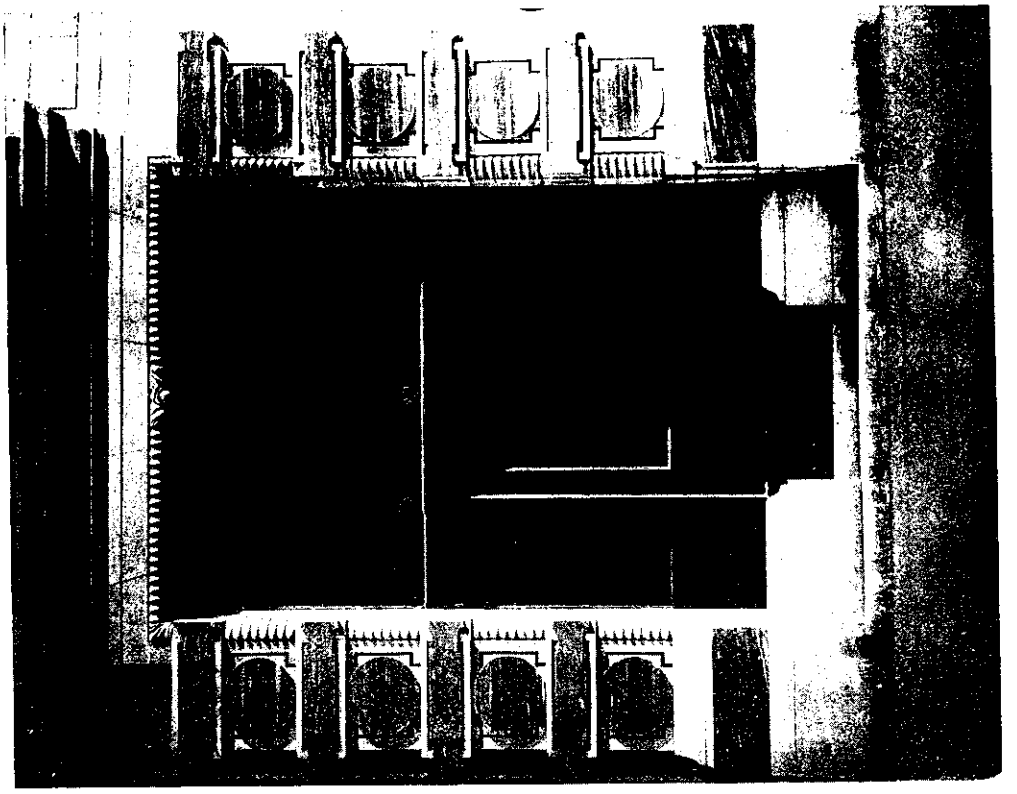


Plan of Ground Floor N.Z. Insurance Co.'s Building, Queen Street, Auckland

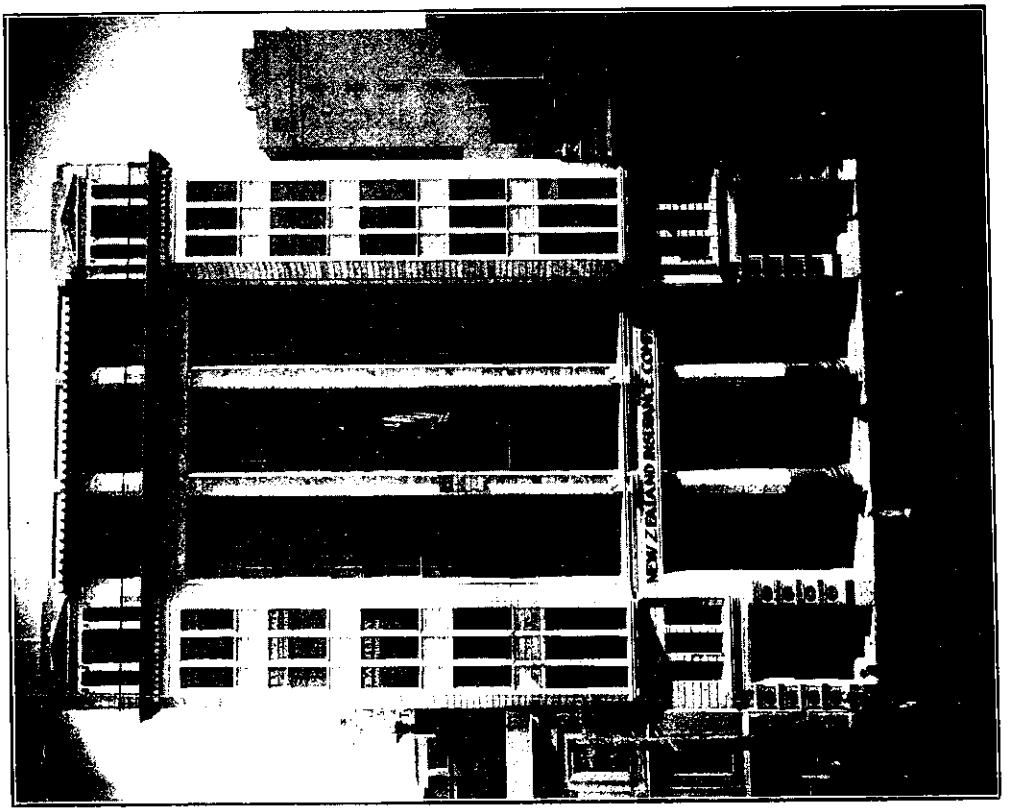
The appeal made by buildings is a peculiar one, being based primarily on their relationship to man's mental and physical well-being, in that they provide a proper means for social and business developement, and thus have an effect on National character and National worthiness.

So we have the Residence, Shop, Office, Factory, the Church, Railway Station, Law Courts, Houses of Parliament, the School and the University, to mention but a few of the types of structures which are the result of modern civilisation. Each class and each individual structure, according to its purpose and the personality of the designer, makes a different impression. This impression is caused in some cases by dimensions of the structure, in others by "fitness for purpose," for attractiveness of materials used, or by the artistry and appreciation of architectural principles shown by the designer. The last mentioned is by far the most important, and when united with the aforementioned creates the strongest appeal. Naturally the average thinking man is unable to analyse architectural form, but still he is a sensitive and understanding being, and "feels," rather than comprehends the appeal of structures.

The Office building in plan, construction and design has made perhaps greater strides in the last twenty years than any other class of structure. We are not prepared to enter into an analysis of the N.Z. Insurance Company's Building, Queen Street, Auckland, but herewith produce for our readers photos and data regarding it which we consider worthy of consideration in a structure which provides Head and Branch Office accommodation for one of the most progressive Insurance Companies of the world, together with approximately 137 offices for letting purposes. That the building follows the most modern methods of construction and finish is apparent, and it



Side Entrance, showing Moulding and Polished Marble



Front Elevation

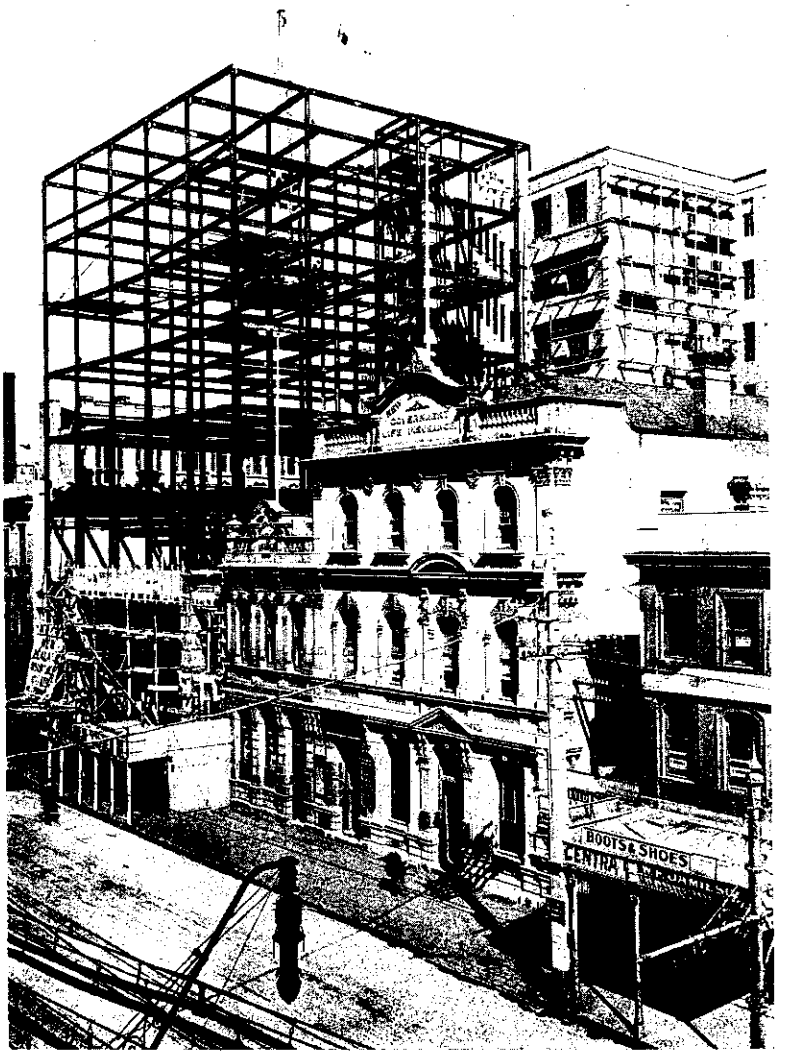
is unfortunate that in the short space available only the most important features can be mentioned.

The site occupies a commanding position and is L shaped, with a frontage of 66 feet to Queen Street and an average depth to main block of 105 feet 6 inches through to Mill Lane. The wing of the "L" makes this frontage on to Mill Lane 127 feet 11 inches, and the level of this is about 23 feet above level of Queen Street. The wing has a frontage to Exchange Lane of 38 feet 6 inches, making a total area of 12,256 sq. feet. The great depth of the site and the level of Mill Lane have naturally had a considerable influence on the plan of the building, chiefly because of the difficulty of securing adequate lighting.

The best principles of planning for commercial structures and the most modern methods of construction as practised in the more successful buildings in Europe and America (and as worked by the Designers in offices in these countries) have been adopted, in order to allow of the highest possible development of the site and to meet the Company's requirements in a perfectly complete manner, yet with every effort to ensure a minimum of first cost and maintenance in years to come. As details of the above the following have received careful consideration.

(1) Ease of access to all parts of the building.

(2) Good natural lighting.

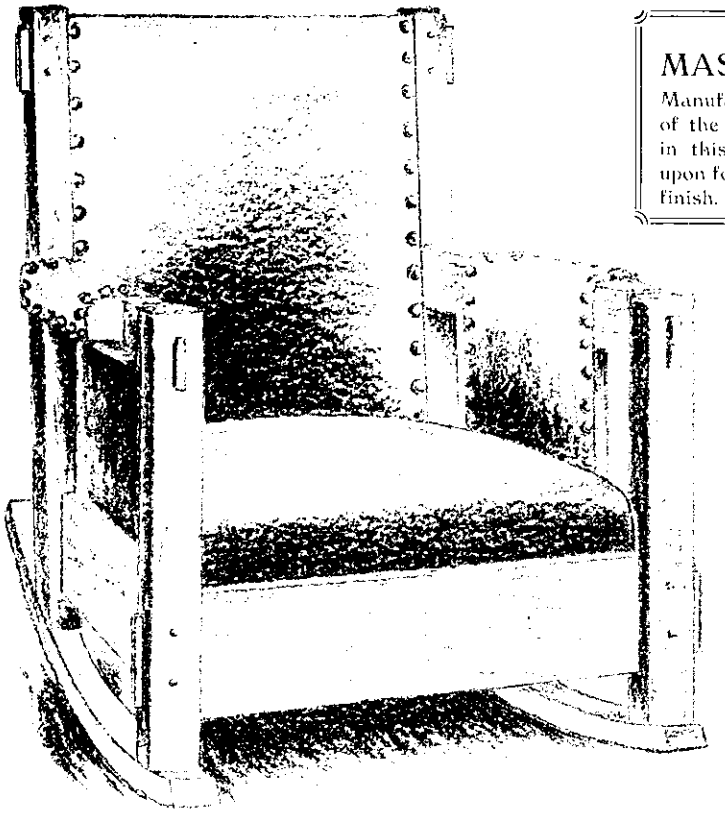


Building in course of construction—showing Steel Frame
(*Messrs. Hoggard & Prouse and W. H. Gummer, A.R.I.B.A., Architects*

(3) Efficient service (elevators, lavatories, artificial lighting).

(4) The maximum of rentable area consistent with true economy.

The building is ten stories, including the basement and caretaker's quarters, and together with the flat promenade roof makes a total floor area of slightly over three acres.



THE
MASSIVE OAK FURNITURE

Manufactured by our Company for the Offices of the N.Z. Insurance Company, as illustrated in this number, has been specially commented upon for its strength in construction and superior finish.

Mission Furniture

Our manufacture of this Furniture comprises everything for the home —for Bedroom, Diningroom, Library, Study, Smokeroom, Loungeroom, etc.--including Novelties, such as Plant Stands, Ladies' Desks, Tea, Card, Library and Study Tables.

Mission Furniture has found favour with the public owing to its preponderance of strength strength in materials and durability, strength in design and style, strength in construction—these all stand out prominently.

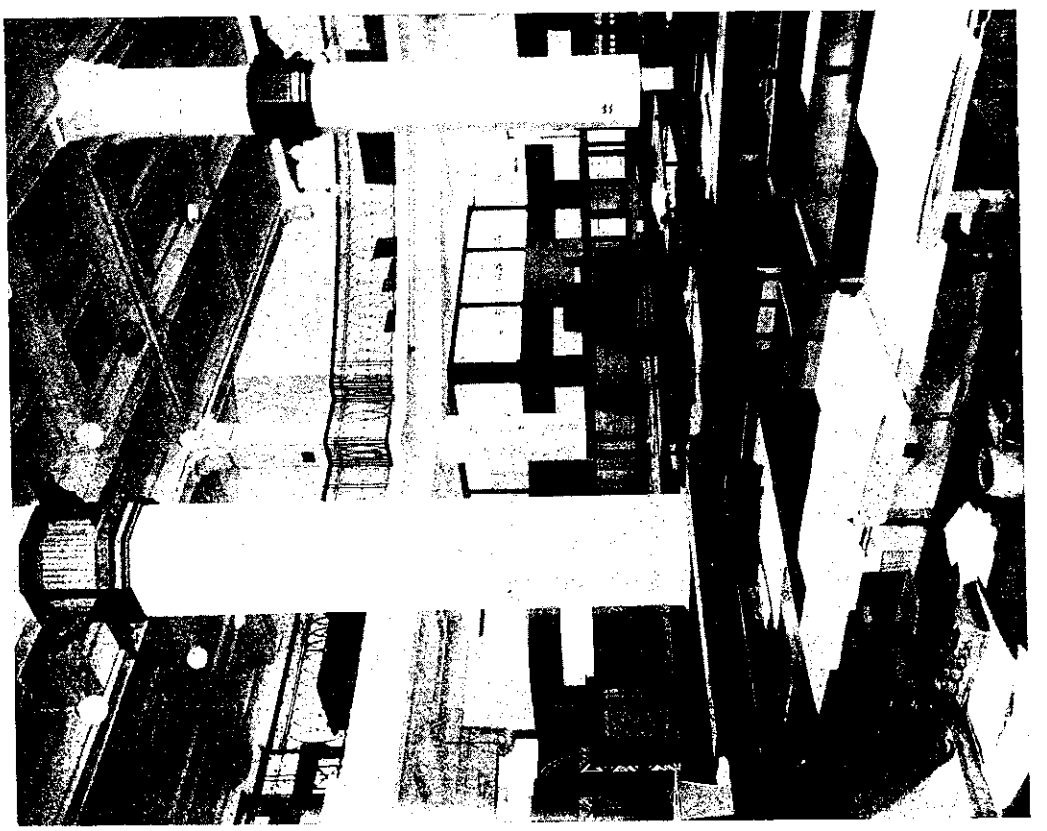
Strong, massive plank legs, attractively heavy, predominate. The frames are made in Oak, finished in any shade desired.

The upholstering is in strong wear-resisting Leatherette, luxurious and rich in exterior appearance.

A cordial invitation is given to promenade our Show Rooms. Designs and estimates free.

TONSON GARLICK Coy. Ltd.

Queen Street
Auckland



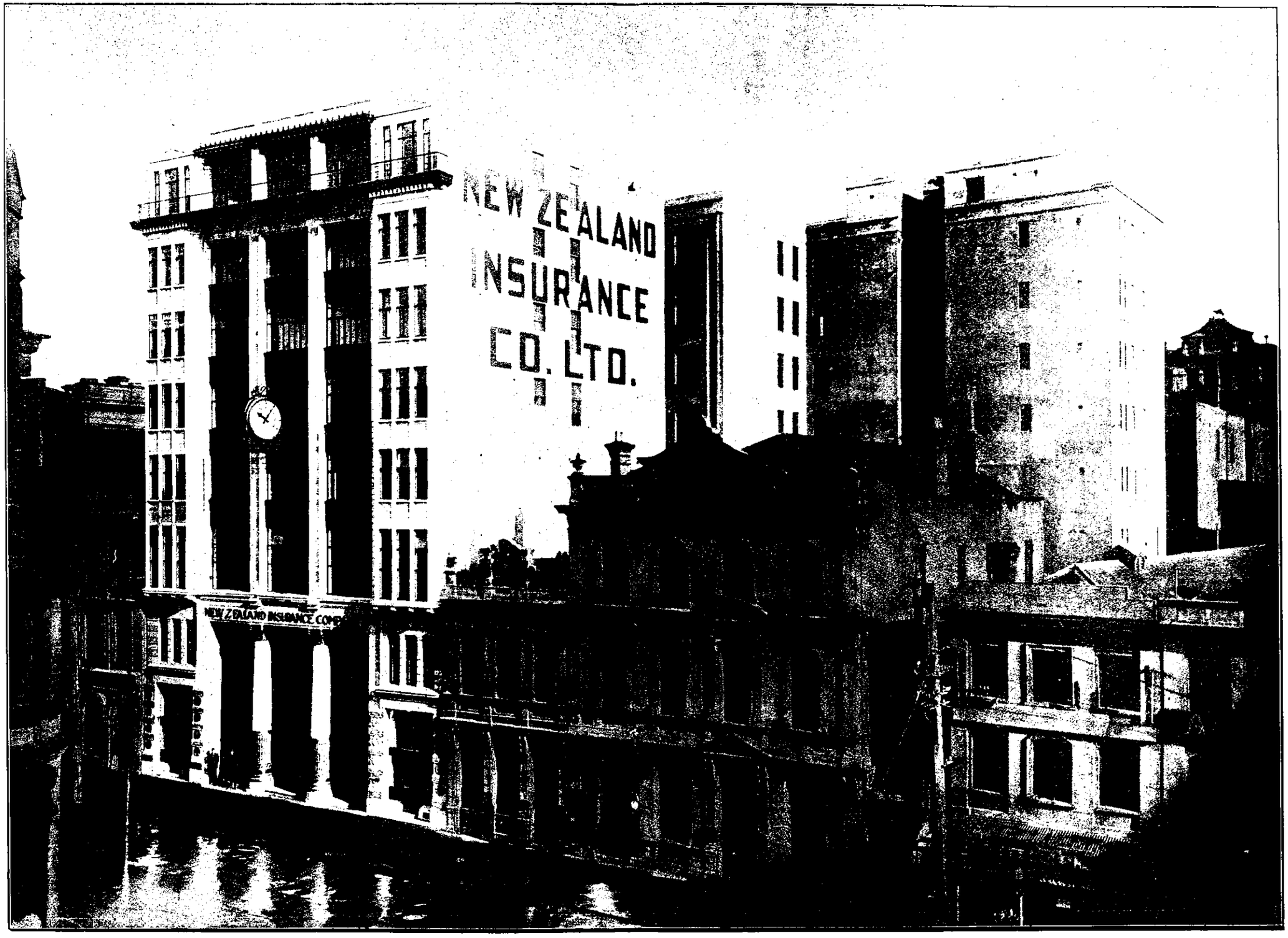
Interiors of Head Office

Construction

Fully realising the importance of construction, the building has been erected in steel and concrete, and thus is monolithic and built for all time. Strong and fireproof it certainly is, and will bear the inspection of those whose limited opportunity of going abroad and seeing what can be done, are rather pessimistic regarding fireproof buildings. The Queen Street facade which is expressive of the construction is finished in Kairuru marble quarried in the Nelson district, and this is the first building to be completed in this stone. Something should be said of this Kairuru marble, one of the finest of the stones of its kind. Many attempts have been made to place this stone on the market as a building material, but ten years of effort and many thousands of pounds sterling have been expended in attaining success. There are great quantities of Kairuru marble in the Sandy Bay district, but to get the marble out a £5,000 tramway has had to be constructed to the head of a deep ravine 1,130 feet above sea level.

A committee of experts was set up by the Government to deal with the important question of the durability of this stone, and samples of marble from Kairuru were tested for the committee's information at Canterbury College, by Professor Robert Scott, with the following result:—Crushing strength, 760 to 830 tons per cubic foot; weight, 191 pounds per cubic foot. By way of comparison between marble and other building materials it is worth noting that Oamaru stone has a crushing strength of 40 to 90 tons per cubic foot, and Mount Somers limestone 180 tons per cubic foot. New Zealand marble is as strong as most granites. These tests of resistance under crushing strain are regarded as most important in building materials, where the strain is mostly that of dead weight. Kairuru marble is coarse-grained, highly crystalline, and bears a strong resemblance to the marble obtained by the Greeks from the famous quarries of Naxos and Paros Islands, in the Aegean Sea. From this material the glorious buildings of ancient Greece were constructed. Coarse grain is a quality of value. The finer the grain the more dead the polished surface. Kairuru marble, with its coarse crystals, gives a beautiful lustrous polish of a creamy depth as illustrated in the main corridor and side entrances to the N.Z. Insurance. As to the weathering quality of the marble, the aspect of the stone provides reassuring evidence. It is well known that certain qualities of Italian marble have stood well in a sulphur-laden atmosphere—in fact the beautiful national memorial to Queen Victoria, erected in London, contains 1,000 tons of Italian marble. It was, however, selected with the greatest care, only 25 per cent. of the quantity cut being used in the memorial.

N.Z. Insurance Co.'s Auckland Branch and Trustee Offices (on Mezzanine) looking to Main Entrance

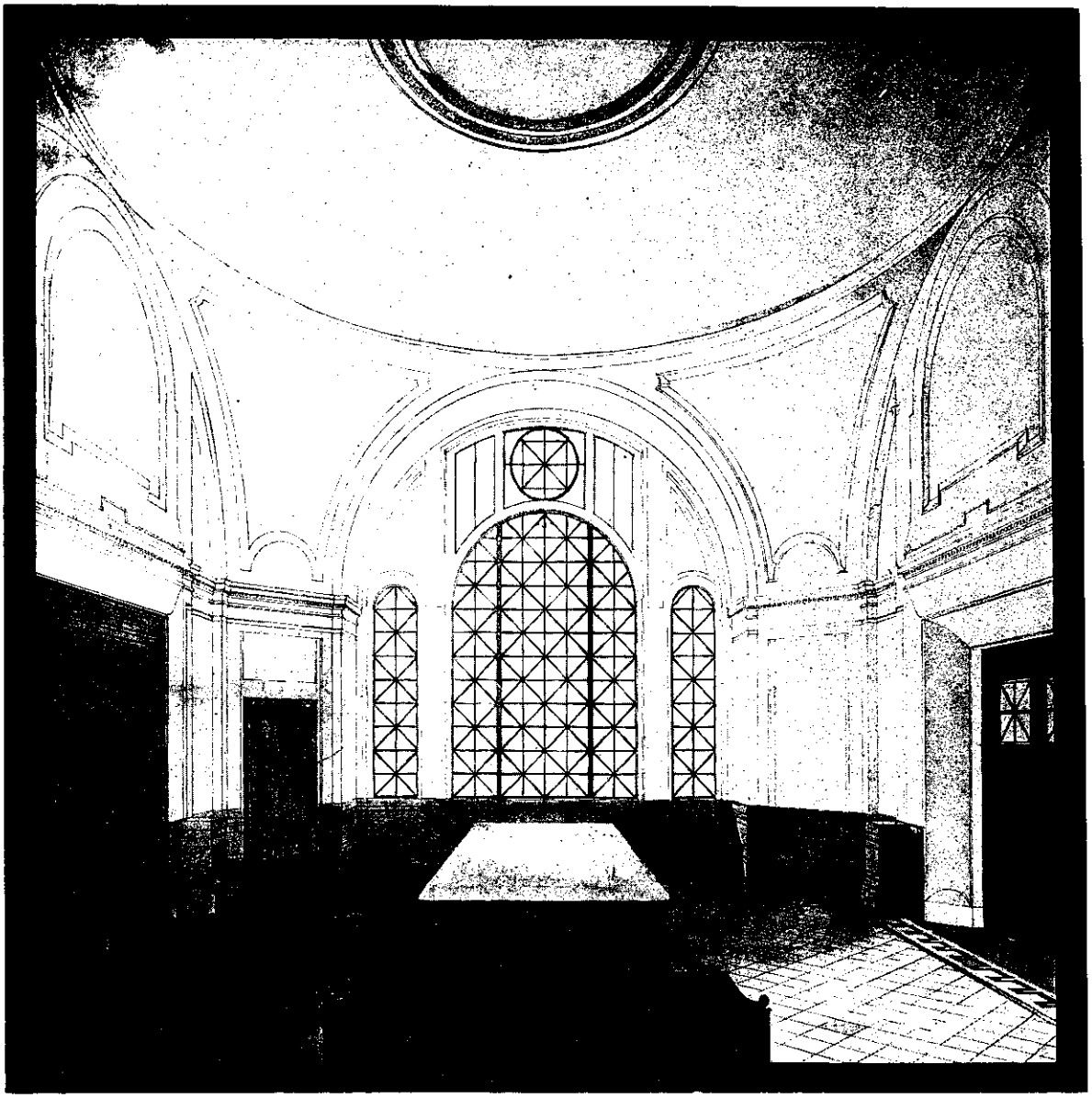


Hoggard & Prouse and W. H. Gummer, A.R.I.B.A., Architects] **General View of N.Z. Insurance Co.'s Building, Auckland** *[Grevatt and Son, General Contractors*

Messrs. Hoggard & Prouse and W. H. Gummer, A.R.I.B.A., Architects]

Main Entrance

[Grewatt and Son, Contractors



Perspective Drawing of Board Room for the N.Z. Insurance Company.

The principal room of the N.Z. Insurance Co., where the Directors hold their regular meeting fortnightly. This room is handsomely finished in oak and floored with indiarubber tiles, and its effectiveness is enhanced by the simplicity of design and due regard to proportional parts—an attractive feature being the wrought-iron window glazed with hammered glass.

Anyone who climbs the endless spurs back of Sandy Bay would gain an impression of boundless supplies of marble only waiting to be quarried. Great care was taken in the selection of this marble and it will be noticed from the excellence of the carving and clean cut mouldings how well this particular material has lent itself to the dignity of the structures. An added richness and contrast has been obtained with the bronze finish to the bases and caps of the columns, the panels and main cornice.

Steel windows (Hopes) are used throughout, and these being extremely wide and the heads kept tight up under the ceiling beams permit of the maximum amount of natural light being obtained.

An attractive feature to the facade is the electric clock, also designed by the architects. This clock which is the first to be installed in N.Z. is controlled by the master in the Board room, and is synchronized with clocks throughout the building.

The main portion of each floor is roughly divided into two by means of an area, such being necessary for the proper lighting and ventilation of the several parts of the structure. Due consideration has been given to the setting of the various units comprising the building, these being arranged with full regard to their function and relative importance, thus the lavatories, strong rooms, stair and elevator vestibules, etc., have been given positions which, while perfectly effective for the particular use to which they are put, are those which are least required by other apartments. It has been realised that the structure is in the first place the Insurance Company's building, and that this fact should govern the plan and the facade.

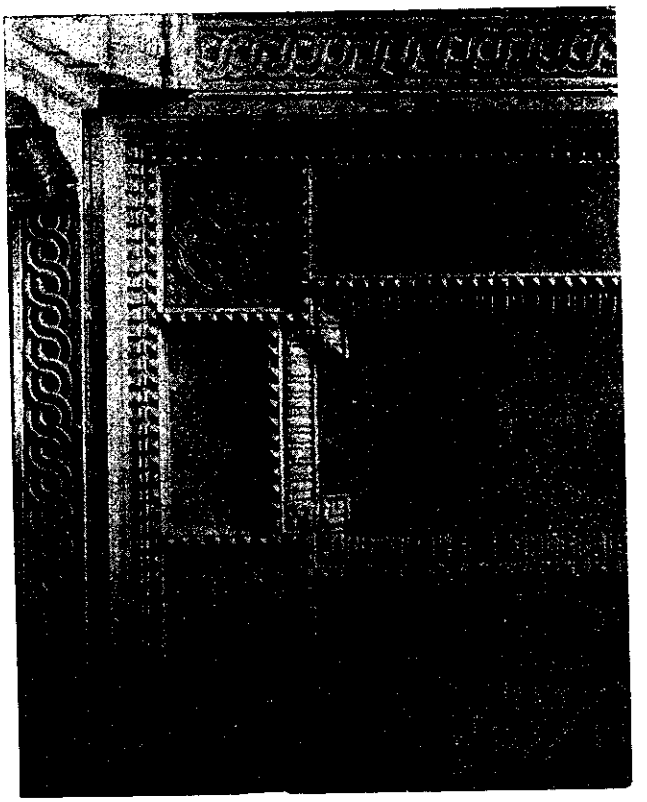
The main corridor 13 feet wide tiled and finished in polished marble leading to the lifts and main stair, leaves no doubt as to where the public offices of the Company are. These offices which occupy four floors show well the value of the construction adopted, being a large space encumbered but little with supports.

The height of the main portion of the offices (Head and Branch) is 24 feet, but this is divided at the sides into two heights so that a Mezzanine floor 14 feet off the main floor is formed, and approached by oak stairs. The Mezzanine floor is carried the whole width across the wing, thus forming two full floors in this part. The total area of each floor space of the Company's offices, including area of Mazzanine floor and floors to wing and the strong rooms (four in number) is 10,200 sq. feet.

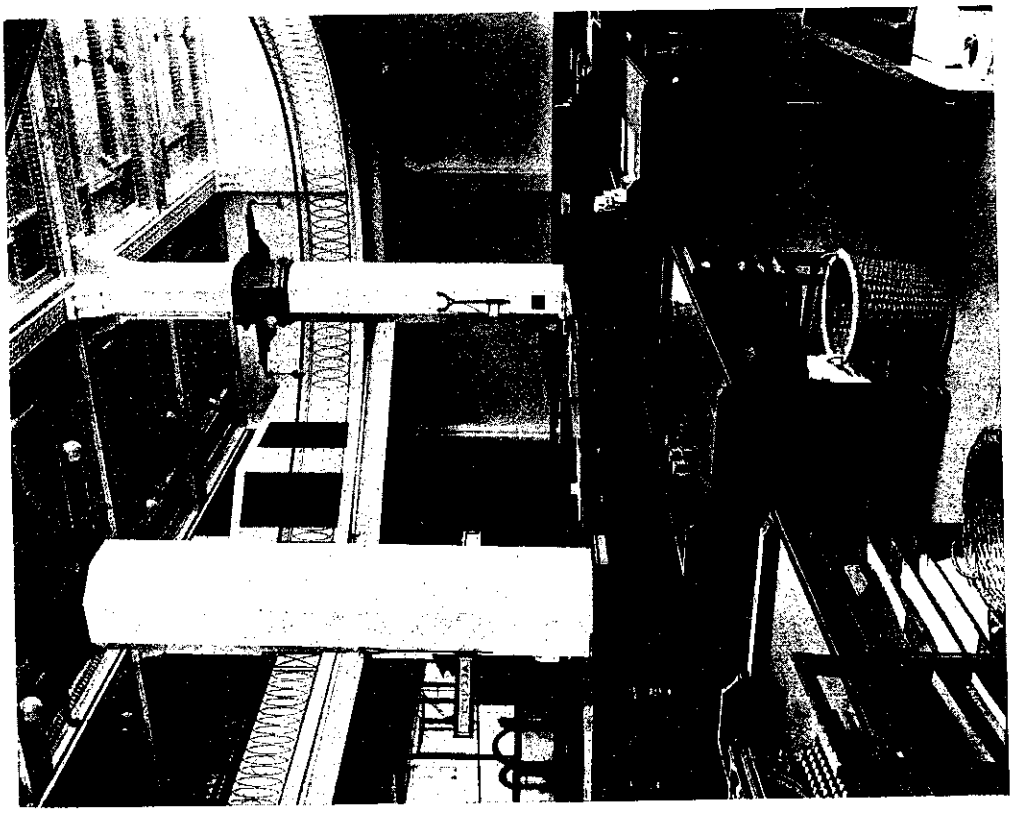
Provision has also been made for the private offices of the General Manager, Secretary and the heads of the various departments all panelled in oak and the public spaces tiled with "Rublino." The Board room with its anti-rooms and conveniences is on the third floor and is a handsome and spacious apartment panelled in oak.

The whole of the furniture and fittings of the Company's offices are carried out in keeping with the dignity of the office from the design of the architects.

Automatic electric elevators (three in number) serve the offices of the upper floors and the building is electrically lighted and electrically heated throughout.



Ceiling Panelled and Finished in "Carrara," showing Monogram used as decorative ornament



Interior of Auckland Branch Office

Another feature is the letter chute, by which letters can be posted on any floor and are cleared by the postal authorities at every hour during the day.

In conclusion, we would remark that the building is a "War" one, that it has been carried through notwithstanding the many difficulties incident to the obtaining, and the selection of the materials required in such constructions. We are of the opinion that the Architects, Messrs. Hoggard & Prouse and W. H. Gummer, A.R.I.B.A., deserve every credit for such a satisfactory addition to the buildings of the chief street of the Northern City. It would be difficult to find a utilitarian building that shows better than this what it is made of and which so clearly expresses its functions and purposes. It is the result of careful and conscientious study, to produce the best results with the most serviceable and economical materials available.

We trust that the spirit which imbued the Directors of the Company and also the architects will be emulated by owners and architects throughout the cities of the Dominion, to the end that pride in individual building enterprises may result in pride of city and comprehensive architectural development of many streets where at present only architectural chaos and incongruity exist.

The following is a list of contractors:—Messrs. Grevatt & Son (General); Messrs. Milliken & McArthur (Steel frame and iron work and mail chute); Messrs. Hansford & Mills (Kairuru Marble). The Clerk of Works was Mr. J. W. McKeon.

The Sub-contractors were as follows:—

Electrical Installation, Messrs. Tolley & Son; Elevators, The Electric Construction Co. (Supervised by Mr. J. Walker).

Steel Windows, Messrs. Hopes, Birmingham.

Decorative Plaster Work, The Carrara Ceiling Co.

Plain Plaster Work, Mr. E. F. Kelley.

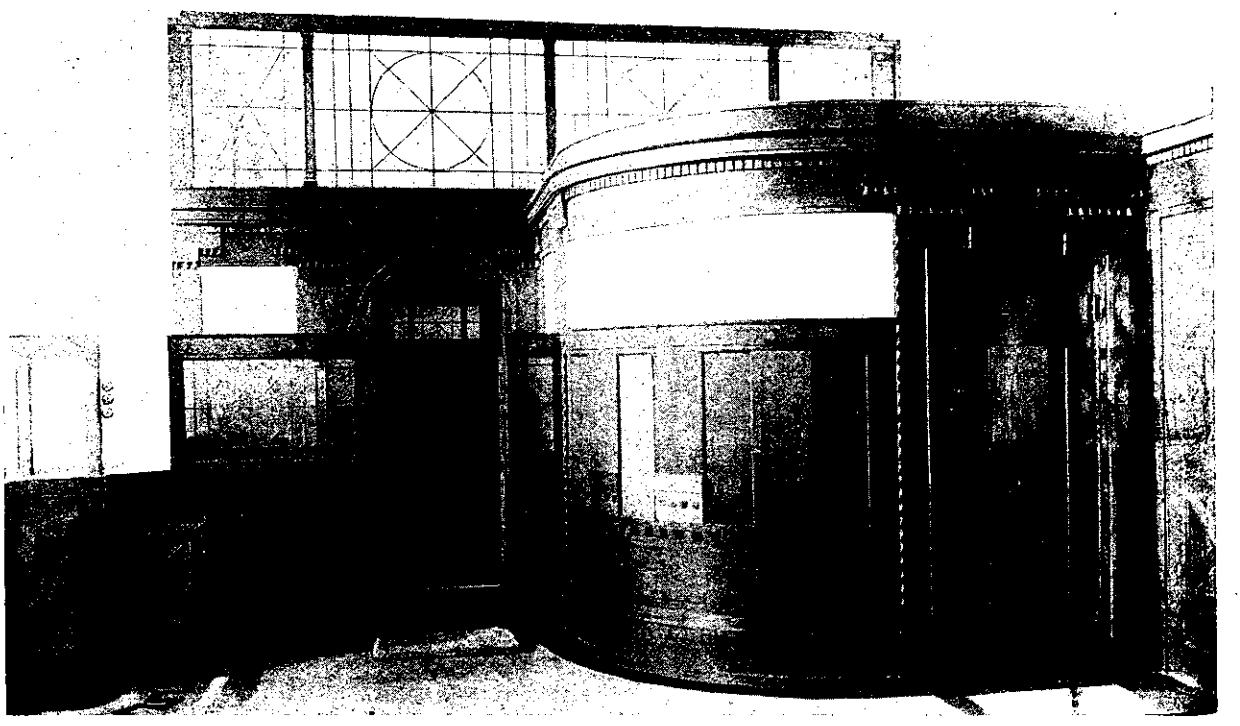
Oak finishings, Main Doors, Counter Screens and panelling in offices, Messrs. Scott & Gibson.

Rimu Joinery, The Kauri Timber Co.

Plumbing, Mr. J. Auld.

Ironmongery, Messrs. Wingate & Co.

Furniture, Messrs. Tonson & Garlick, Messrs. Cousins & Cousins and Messrs. Scott & Gibson.



Entrance to General Manager's Office, showing Oak Panelling

Oak Staircases. Mr. Geo. Stevenson.

Glazing, Messrs. Hill & Plumber, (Pilkington Glass), and The Luxfer Prism Pavement & Lighting Co.

Painting & Signwriting, Messrs. Henderson & Co. (Mr. R. Taylor).

Bronze, The Wunderlich Co. and A. & T. Burt.

Rubber Tiles "Rublino", Redpath & Son.

Cement, "Star" and "Crown."

Asphalt Roof and Basement Waterproofing, Limmer Asphalt, H. Mainland.

Bricks, Gravel, etc., J. J. Craig & Co. and Winstone & Co.

Clock, Synchrome Co., London, (A. Kohn).

Safe Doors, Milner.

The Photographs are by Messrs. J. J. Potter, Bell, W. Smith and Winklemann.

The Clock

The Tunet or Bracket Clock and systems of clock dials shown in connection with the New Zealand Insurance Building was imported and erected by A. Kohn (F. L. Diddams, manager), 178 Queen Street, Auckland. It is one of the most up-to-date systems of time keeping that is possible to obtain, and should be eventually adopted by all business houses where correct time is essential. The great advantages connected with these clocks are uniformity and accuracy with every clock in the building. No winding whatever is required. Effectiveness, reliability and independence are assured. There is little or no variation where a number of clocks are needed. The original outlay is no more than the old style of clock. The clocks consist of an electrically driven pendulum, called a master clock, which operates any number of dials. The pendulum is combined with a simple switch so that both the time keeping and switching functions are performed automatically, and in an ideal manner. Each dial has a "one wheel" movement behind it, yet this simple mechanism secures uniformity and accurate time-keeping without winding up or any other attention. The clock shown on the building has two dials placed "V" shape, to enable it to be seen the full length of Queen St. Each dial is 6 ft. in diameter, clock over all being 8 ft. Case is composed of antique bronze and weighs over a ton. The lighting is automatically turned on and off according to the season of the years. The power is derived from the city mains through the master clock erected in the board room. In case of failure of the city supply, the power is derived from the ordinary dry cells. The firm of A. Kohn have also in hand another order for a similar system to be erected for a well-known Queen Street firm.

Electrical Installation

The electrical installation is of a most comprehensive character, comprising over 500 lights and 150 heating plugs. Power is supplied from the underground mains of the Auckland City Council, and is led to two main switch boards in the basement from whence it radiates to 29 distribution centres throughout the building. All distributing pipes, telephones, wires, etc., are led up two conduit wells located on either side of the main stairway which extend the whole height of the building, providing an easy means of extending and altering circuits. The main offices and corridors are lit with indirect fixtures giving an even and restful illumination. Lighting and heating points are provided in each tenant's office, so arranged that any combination of rooms may be grouped for metering purposes at the switchboard with a minimum disturbance of connections. A private intercommunicating system of 20 lines capacity is installed between various parts of the main offices. Conduits radiate from each room in the building to the two conduit wells, permitting the easy installation of exchange telephones without interfering with the internal decorations. The two main elevators are of the Smith Stevens makes, having three speeds, the maximum being 300 ft. per minute. A smaller automatic elevator is provided for goods service. Messrs. Tolley & Son, Chews Lane, Wellington, are responsible for the successful carrying out of the above installations with the exception of the elevators which were installed by The Electric Construction Coy., Auckland.

The Stairs

The stairs to the mezzanine floors are all in solid oak, and were built by Mr. Geo. Stevenson, who, in addition to giving a first class job, has faithfully carried out the artistic design which is the hall mark of the professional workman. Mr. Stevenson, who has for 20 years been building stairs exclusively, says that he is seldom given such scope as he had on the stairs at the New Zealand Insurance Building. No skimping or economy was required, everything is massive, solid and substantial, yet these stairs, although beautiful in appearance, are not over-burdened with enrichment. The beautiful straight lines with plain faces and bold curves showing off the inimitable grain of oak, give at once the impression of chaste design, substantial construction, and artistic workmanship. The stairs are a credit alike to the building and to the builder, and one would go a long way before finding such a combination of beauty, strength, and artistic merit as are found in these stairs.

Australian Boring Beetles

Some correspondence has passed through the Christchurch papers regarding the alleged danger of importing Australian boring beetles of a large size in timber used for telegraph poles. The matter was referred to Mr. E. Shrimpton, engineer to the Post and Telegraph Department, who said he had noticed the tunnels bored by beetles in the timber used for poles, but he had never yet been able to find the living beetle, though he had looked for it carefully. He considered that so far as the South Island was concerned, and the colder parts of New Zealand, there need be little fear of an Australian beetle living, as the climate would kill it. In the Auckland district, however, insects such as white ant had been imported from Australia, and damage had been caused by it, and in this climate boring beetles might survive. Mr. Shrimpton thinks that the holes in the poles were probably made when the tree was in its living state. Enquiries made at the Christchurch museum regarding the matter elicited the fact that Australian beetles of the boring variety had been found as far back as 1873. There was one labelled as having been found "in Tully's cowshed" in February, 1873, in the Wakefield collection, but, generally speaking, an insect of imported species was rarely found. On the other hand, New Zealand has a large native family of beetles ranging in size from a fraction of an inch to nearly two inches long, which all bore in timber during the larval stage, but in many cases these beetles do not attack the living tree, but chiefly confine their attention to dead and rotten wood. The opinion was again expressed by our informant at the museum that the cold climate of Canterbury and the South Island was more than likely to kill Australian insects.

Special (Open) Architectural Competition

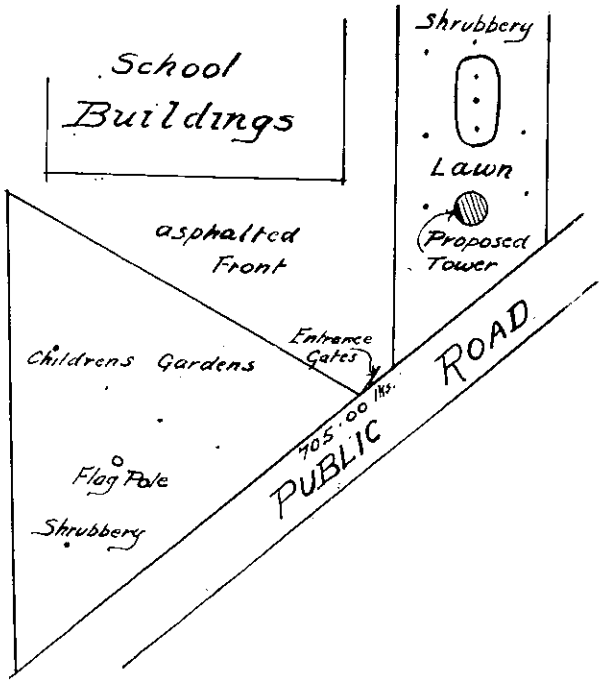
A prize of £3 3s., and a 2nd prize of £2 2s. (adjudicator's prize) is offered by an Education Board for a Soldiers' Memorial to take the form of a

Water Tower in Concrete

in a public school grounds, which is to cost about £50 (estimated).

The capacity of ferro-concrete tank to be 2,000 gallons, height 15 feet to water level, and depth of tank about 5 feet. Top of tank to be concreted over and suitable manhole provided. Tank to be fed from bottom with at least two 1 inch pipes and 1¼ inch pipe overflow.

Twenty-four square feet of marble slabs to be provided for, no strip to be of a less width than 18 inches and bottom of slabs to be not less than 6 feet from base. Slabs to be arranged on the most con-



spicuous places looking from road (see plan herewith), and are not to be included in the cost. They are to form panels for names, etc.

The tower can stand on pillars or solid concrete, as suitable for design, and consideration will be given if any item can be introduced under the tank, such as a seat for the use of school children, or anything that may prove of interest in connection with public school work.

The first three designs will be the property of the Education Board, and will be adjudicated on by a Wellington architect, who very generously offers his fee as a second prize.

Designs must be sent in under a nom de plume (with covering letter giving competitor's name and address), marked clearly "Water Tower Competition," C/o "Progress," 8 Parish Street, Wellington. Competition is open to anybody, and drawings must reach above address by September 18th.

Our 64th Competition

Owing to pressure on our space this month the results of our 64th Competition for a 6-roomed house set by Mr. F. de J. Clere, F.R.I.B.A., of Wellington, have been held over till next month.

Personal

Associate P. Watts Rule, who has been for the last ten and a half years with Mr. Jas. S. Turnbull, architect, of Timaru, enlisted some time ago, and entered camp this month. Private Rule has been posted to the Machine-Gun Section of the Specialists' Corps, 49 Reinforcements.

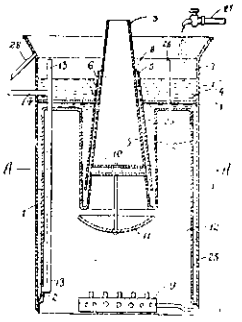
State Town Planning

South Australia does not think as we hear some people in New Zealand do, that this country is not ready yet for Town Planning! The Government of South Australia have recently re-engaged Mr. Charles C. Reade for a further two years. He is attached to the Civil Service as expert in Town Planning and Housing. The Attorney General recently announced that the Government had decided to maintain Town Planning as a separate and permanent department.

Patents of Interest to Builders

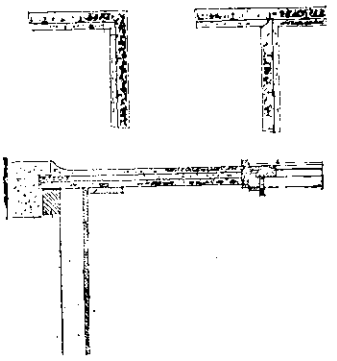
Wood, Paper Maché &c., Substitutes.—A patent No. 38,719 has been taken out by William Aggers, of Home street, Auckland for a substitute or facing material. It is made from flax, tow, fibre, grass, or other fibrous substance, rags, paper, and other pulp or substance suitable for the purpose. Mixed with starch, flour, and water, either with resin and (or) oil or without it, rice, sago, tapioca, glue in any form, shellac or other form of varnish, enamel, pitch, tar, bitumen, asphalt, and any glutinous matter of a suitable character, in such a manner that after being sufficiently heated and pressed the material required is produced in any shape.

Water Heater.—A patent, No. 38,165 has been taken out by Wm. Joseph Dicker, 5 Herald Terrace, Wellington. According to this invention, the heater consists of a cylindrical casing, and within this casing is inserted another cylindrical casing of smaller diameter and concentric with the first. These two cases form a water-jacket which extends across the top of the appara-



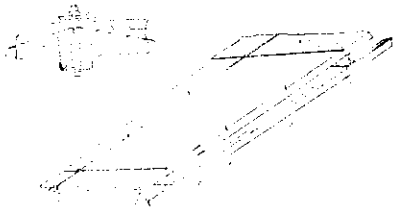
tus and around the flue. The flue is preferably made conical, and the water is fed down to the casing hereinbefore referred to through a sleeve surrounding the flue. Any desired heating-medium may be employed, and in the case of wood or coal a suitable grating is supplied, and when gas is employed the usual suitable arrangements are fitted.

Weight-Carrying Wall, Reinforced Concrete, without Boxing.—A patent, No. 38,437 has been taken out by C. H. Mitchell, architect, Kouini road, Hataitai, Wellington, by means of which the



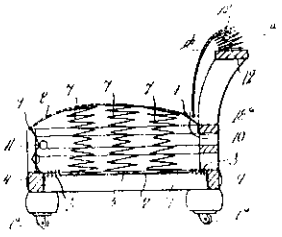
concrete substance is applied by means of either or both a trowel or a float, or their substitute, to the reinforcement, which is constructed to permit of such application.

Concrete Roofing, &c., Slab.—A patent, No. 39,817 has been taken out by J. A. Main, of Glasgow. In the construction of the slab of this invention a curve for the reinforcing material approximating to the catenary or natural curve of said material when suspended between two points of support is employed, and



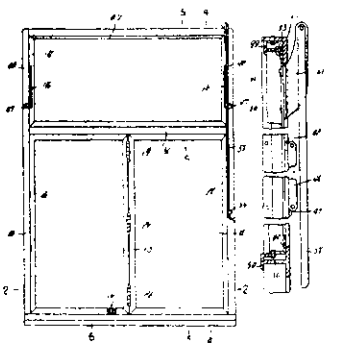
in this manner a thin slab of such a weight as to be easily handled is obtained, while a strength is obtained for the slab which is much greater than the strength of the usual flat or corrugated reinforced concrete slab of considerably greater thickness.

Couch, Easy Chair.—A patent, No. 38,828 has been taken out by D. P. Palmer, of Springfield road, Christchurch. The frame of ordinary construction of a chair is mounted on castors in the usual way. Spiral springs attach to the back and front of the frame support transverse bars, and other spiral springs attached to the sides of the frame support a longitudinal bar. The spiral springs ordinarily used for seats of furniture are fixed to the top of the transverse and longitudinal bars, and over the springs a covering of woven wire is stretched. Wires



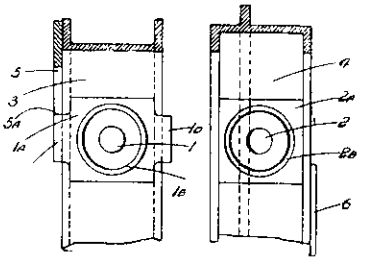
are threaded through the back, front, and side edges of the woven wires, the wires at the sides being attached to the frame by wire and spiral springs. Along the front edge of the frame a plurality of springs of special construction secure the maximum resistance without affecting the springiness of the seat. These springs are made with a coil or coils, each having a leg, one leg attached transversely to the frame and the other to the woven wire. Above the top rail of the back and sides of the couch a top rod is provided, having its ends attached to ferrules, which in turn are attached to springs fixed to a board forming the scroll ends of the couch. At the corners of the couch, corner wires bent to the required contour for the back and sides are lashed together, the woven wire where it abutts against the wires being cut to a template and afterwards bound to the said wires. The ends of the woven wire at the sides of the couch are cut off square and secured to the scroll-boards, the tops thereof being fastened to the said top rod and the bottoms thereof being fastened to a bottom wire and to one of the said corner wires. At intervals along the top rail, and attached to the top wire at the back and sides of the couch, spiral springs are fixed; and, between these spiral springs, springs having scrolls are fixed. The whole top edge of the couch is thus effectually sprung, so that no matter from what angle pressure is applied the couch will respond. When the framework above described is completed the canvas or underwork is tacked in position, and the stuffing and covering material applied in the usual way, but less in quantity owing to the continuous support derived from the woven wire. The scroll being formed with a moulded edge, over which the woven wire is stretched and fastened down, understuffing at these parts is dispensed with.

Casement Window.—Another patent window has been invented by Niels Nielson of 162 Khyber Pass, Auckland, No. 39,230. According to the invention, the casement-sashes and fan-light



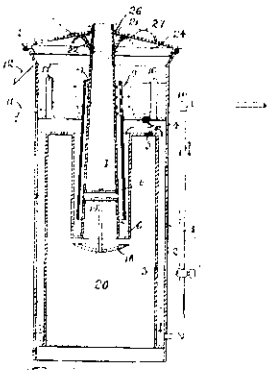
frames and parts are made of iron or other metal, with roller bearings for the sashes and fanlight, and a combined handle and catch for closing and fastening the sashes.

Window-Pivot.—A patent, No. 38922, has been taken out by A. Woolnough of Dunedin, and comprises a spigot 1 and faucet 2 to form a pivot, made in two parts, 1A and 2A, let into each other, one part 1A being attached to the frame 3 of the window and the other part 2A to the window-sash 4, each to each and opposite, the part 1A having a protruding ring 1B on its surface, adapted to engage with and rotate in a corresponding circular groove 2B in the part 2A, the said ring 1B being of a diameter



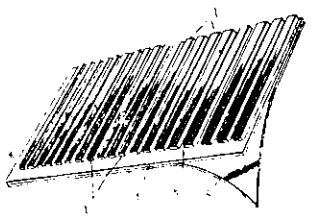
greater than the distance left uncovered by the weathering-strips 5 and 6; the lug-pieces 1C and 1D of the part 1A being of sufficient length to reach from the terminal end 5A of the weathering-strip 5 on one side of the pivot to the terminal end 6A of the weathering-strip 6 on the other side of the pivot, and the protruding ring 1B is of such a depth as, when the window-sash is removed from its normal distance from the frame 3, the said ring 1B will remain in contact with the groove 2B in the opposite part 2A.

Water Heater.—A patent, No. 39,990, has been taken out by W. J. Dicker, of 49 Vivian street, Wellington which relates to heaters of the type described in New Zealand patent No. 38,165. According hereto, instead of feeding the cold water into a reservoir at the top of the apparatus as in the former invention, the cold water is fed to the bottom of the water-jacket, and the water thus travels in a winding course until it



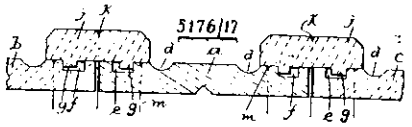
passes into a reservoir in the top of the apparatus. It is found that this construction gives better results than in the case of No. 38,165, because in the former construction, at times when the fire is strong, a pressure of steam periodically checks the downflow of cold water. Moreover, the former construction in which the draw-off pipe was placed internally in the furnace was more difficult and expensive to manufacture satisfactorily.

Composite Board.—A patent, No. 39,853, has been taken out by Noyes Bros. Ltd of Sydney. The invention consists essentially of a combination of wooden laths spaced apart and



secured by asphaltic or bituminous mastic cement to one surface of a waterproof roofing-felt or similar material of bitumen and paper, the other or plain surface being exposed to the weather.

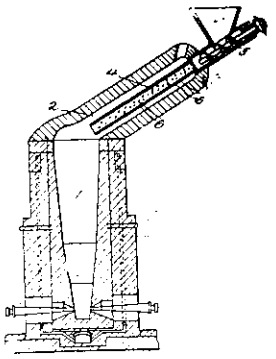
Roof Covering.—A patent, No. 5,176, has been taken out by W. J. Properjohn of Western Australia for a roof covering



1 figure, 1 claim

which consists of a grooved covering board for roofs or walls, in which recesses E and F are provided to accommodate tongues G on the covering battens J.

Iron Steel Manufacture from Magnetic Ironsand.—A patent, No. 39,032, has been taken out by W. P. Heskett of Christchurch. According to this invention, the top of the furnace is covered by a dome of brickwork, with openings on either side or both sides. These openings lead into a chamber or chambers 2, the waste heat of the furnace travelling the same. Extending through the chamber 2 are a plurality of pipes 4, each of which is adapted to receive material by means of a worm-feed or other suitable device 5 and to deliver such material into the furnace 1. The said pipes 4 may be disposed vertically, horizontally, or at any suitable angle as here shown, the form of the chamber 2 being modified accordingly. The pipes 4 are formed with perforations 6 adapted to permit the escape of gases from such pipes to the surrounding chamber 2. The iron-ore is intimately mixed with coaldust, or any form of carbonaceous matter in solid or liquid form, and also, if thought desirable, with caustic lime, silica, and alumina. In lieu of the lime, silica, and alumina, Portland cement or any form of hydraulic lime comprising the approximate proportions of 70



per cent. lime, 20 per cent. silica, and 8 per cent. alumina may be employed, or carbonate of lime in any form may be used. The mixture so constituted is then delivered to the feeding-devices 5, by means of which it is caused to pass through the pipes 4 into the furnace 1. The gases given off by the mixture when passing through the pipes 4 escape through the perforations 6 into the chamber 2, where they are consumed, thus augmenting the heat arising from the furnace 1 and so providing the temperature necessary for deoxidation of the iron-ore contained in such mixture, which is in consequence delivered by such pipes 4 to the furnace 1 in the requisite conditions for smelting.

Building Notes.

AUCKLAND.

The Minister of Education stated at Pukekohe that if the citizens would find the land he would do his best to get the Government to make the monetary grant necessary to build a Technical School.

The new Infant School was opened last month in the presence of the Minister of Education. The new structure has been erected at the head of Gillies Avenue on a commanding site of four acres, overlooking the present school, with a view of practically the whole of Newmarket and portion of the harbour. The building is said to be the most up to date of its kind in the Dominion, and to embody the latest improvements, recommended by educationists, in buildings for the teaching of children in the primary classes. Constructed of red pressed brick with plaster finishing, and roofed with Marseilles tiles, it comprises four commodious classrooms, a large porch, teachers' room, and cloak room, all finished in plaster. Casement windows make the building practically an open-air school. There is a blackboard dado round each room, and the latest type of individual desks and seats has been provided. The building, which has been erected by Mr. G. A. Jones to plans prepared by the Board's architect, Mr. J. Farrell, is capable of accommodating about 250 children. The cost was approximately £2,700.

Further accommodation is required at the Technical College, and the matter was brought under the notice of Mr. Hanan recently. The proposals involve the establishment of engineering rooms apart from the main structure, and the conversion of the present engineering quarters into four classrooms. It was stated that the adoption of the proposals would enable 120 additional pupils to be accommodated.

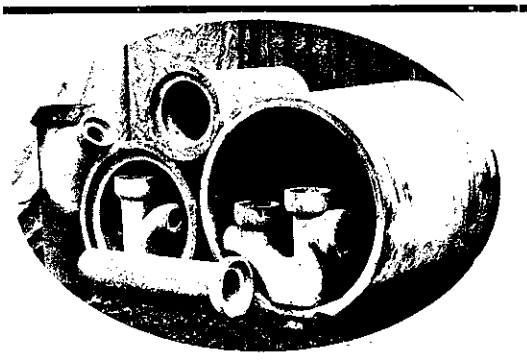
Plans are in hand for a large chocolate factory to be erected for an English firm.

CHRISTCHURCH.

The final plans for the new Canterbury Hall, to replace the building largely destroyed by fire, have been approved by the directors and shareholders of the Canterbury Hall Company and the City Council. The plans have been prepared by Mr. H. E. White, of Auckland and Wellington. The facade with its two towers will be left standing, but there will be a dome in the middle. Slight alterations only will be made to the towers. The doorway to the Alexandra Hall will be the same as the doorway to His Majesty's Theatre, each possessing a large portico. There will be a wide entrance to H.M. Theatre, giving a side-opening into the stalls, which will be entered by three doorways. H.M. Theatre will hold about 2,000 people. It will comprise in addition to the ground floor, two galleries, a dress circle, and an upper circle similar to His Majesty's Theatre, Wellington. Access to the dress circle will be by means of a flight of stairs, and then by a double landing on to a foyer. There will be six boxes on each side of the stage.

The new Alexandra Hall will possess a dancing floor of greater dimensions than the old hall, with a gallery above and two boxes on each side of its stage. It will hold over 1,000 people, and will be used for concerts and other performances. The stage will be fitted up in the same way as H.M. Theatre, scenery, etc., being provided.

The Nurse Maude District Nursing Association called for tenders through the architects, Messrs. England Bros., for premises in Madras Street. The same firm called for tenders



for extensions to a wool store for Messrs. Dalgety and Co., Moorhouse Avenue.

The City Council will have to erect a building to accommodate electric vehicles requiring to be charged, according to the Electrical Engineer's recommendation. A special committee has been set up to go into the matter.

The Orthopaedic Hospital, which it was proposed to build, will be accommodated in the new Chalmer's Ward recently illustrated in these pages and erected to plans of Messrs. Collins and Harman. An additional temporary ward may be erected accommodating 50 or 60 patients in the hospital grounds. Provision for a gymnasium, therapeutic and balneological rooms, is also to be made at a cost of £1,000. Also a new workshop costing £300, and other minor alterations.

Early this month Mr. J. S. Guthrie called for tenders for additions and alterations (brick and stone) to Agricultural College, Lincoln.

In accordance with a notice of motion Councillor Ell, at a recent meeting of the Christchurch City Council, moved:—"That a Town Hall Committee should be appointed to report on a site for a Christchurch Town Hall, and on the estimated cost, and that the Canterbury Branch of the New Zealand Architects' Association should be asked to appoint a committee from its members to make recommendations. That the Town Hall Committee should consist of the Mayor (Mr. H. Holland), ex-officio, the Hon. H. F. Wigram, M.L.C., and Messrs. A. E. G. Rhodes, W. Reece, H. J. Beswick, and J. J. Dougall (ex-Mayors), Crs. A. S. Taylor and W. Nicholls, the chairman of the Works and Reserves Committees of the City Council, and presidents of the Canterbury Chamber of Commerce, Christchurch Beautifying Association, and Canterbury Trades and Labour Council."

Speaking in support of his motion, Cr. Ell said many citizens were opposed to the Victoria Square site. He (Cr. Ell) favoured the site of a certain private property near-by. In the course of his remarks he referred to the Council's proposal to erect additions on the present municipal offices site.

Cr. Flesher: Wait and see.

Cr. Ell: I am prepared to block your Bill when it goes before Parliament next year.

Cr. Ell agreed to move the first part of his motion only, deleting the reference to architects.

Cr. Hayward seconded the motion.

Cr. McKellar considered the Council was quite competent to go into the question of a Town Hall itself.

Cr. Howard favoured the erection of municipal offices before the Town Hall building was erected. These offices should be erected at once. He suggested the building of them on the section opposite the present municipal offices and connecting the two buildings by an archway. He agreed with Cr. McKellar that the members of the Council were quite competent to select sites, etc., without calling in outsiders.

Cr. Williams said he held similar views. He moved, as an amendment:—"That a committee, consisting of the

Mayor, the chairman of all committees, and Cr. Howard, be set up to consider the Town Hall question, and report to this Council."

Cr. Herbert seconded the amendment. The Council's present offices must be enlarged first, he said; they were a disgrace to the Council. He hoped the Council's Bill on the subject would pass Parliament next session.

Cr. Ell: On the river-bank here?

Cr. Herbert: Yes, we have been hung up long enough.

Cr. Beauland said he did not think any definite site had been selected for the Town Hall.

The Mayor (Mr. H. Holland) hoped the lesser would not be over-shadowed by the greater. He hoped the Town Hall, which was a luxury, would not overshadow the municipal office accommodation, which was an urgent necessity. The offices down below were like dog boxes. If Cr. Ell added the names of the whole of the members of the Council to the names of the gentlemen on the committee he had mentioned, his motion might meet with success.

Cr. Ell immediately agreed to this, and obtained permission to alter his motion accordingly.

The amendment was, however, carried by 9 votes to 3, the voting being as follows:—

For: Crs. Loasby, Peek, Herbert, Wells, Howard, Burgoyne, Beauland, McKellar and Williams.

Against: Crs. Hayward, Ell, and Nicholls.

FEATHERSTON.

So popular has the Salvation Army Hostel at Featherston proved that it has been found necessary to extend it. A new building, to contain 32 bedrooms, is being erected, and the dining-room is also being enlarged to accommodate 100 people. The new building is expected to be available within a few weeks.

TAUMARUNUI.

During last month a loan of £25,000 was made to the Taumarunui Hospital Board by the Public Trustee, repayable in 30½ years, for the purpose of erecting a new hospital.

TE AROHA.

Mr. E. G. Gillman called for tenders for the erection of a residence at Hetherton, Thames river.

WELLINGTON.

An artificial limb factory is to be built near the old Te Aro Railway Station to cost £2,762. It will be under the control of the Defence Department.

A proposal is being considered to provide hostel accommodation for girls in Wellington. The Management Committee of the Teachers' Institute have the matter in hand.

Messrs. Clere and Williams called for tenders early this month for the erection in brick of an 8-roomed house with large hall, gymnasium and garage.

NOTICE!

TO OUR READERS.

The Publishers of "N.Z. Building Progress" announce that from and after the June issue, owing to the enormously high cost of paper, the price of "Progress" will be **9d.** per copy, or by subscription, **paid in advance, 8 6 post free** per annum.