



1922.

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

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PARLIAMENTARY STANDING COMMITTEE ON
PUBLIC WORKS.

Clerk of the Senate.

12-7-22

REPORT

TOGETHER WITH

MINUTES OF EVIDENCE

RELATING TO THE PROPOSED

PROVISION OF OFFICE ACCOMMODATION IN
ADELAIDE, SOUTH AUSTRALIA, FOR VARIOUS
COMMONWEALTH DEPARTMENTS.

MEMBERS OF THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

Third Committee.

The Honorable HENRY GREGORY, M.P., Chairman.

Senate.

Senator Hattell Spencer Foll.*
 Senator George Henderson,†
 Senator John Newland, Vice-Chairman‡
 Senator Edward Needham§
 Senator William Plain.*

House of Representatives.

Llewelyn Atkinson, Esquire, M.P.‖
 The Honorable Frederick William Bainford, M.P.
 David Sydney Jackson, Esquire, M.P.**
 George Hugh Mackay, Esquire, M.P.
 James Mathews, Esquire, M.P.
 Parker John Moloney, Esquire, M.P.

* Appointed 25th July, 1920. † Resigned 22nd July, 1920. ‡ Re-appointed 25th July, 1920.
 § Crossed to be a member of the Senate, 30th June, 1920. ‖ Resigned 12th May, 1921. ** Appointed 19th May, 1921.

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EXTRACT FROM VOTES AND PROCEEDINGS OF THE HOUSE OF REPRESENTATIVES.

No. 204 of 6th DECEMBER, 1921.

23. PUBLIC WORKS COMMITTEE. REFERENCE OF WORK OFFICE ACCOMMODATION, COMMONWEALTH DEPARTMENTS, ADELAIDE. Mr. Groom moved, pursuant to notice, That, in accordance with the provisions of the Commonwealth Public Works Committee Act 1913 1914, the following work be referred to the Parliamentary Standing Committee on Public Works for its investigation and report thereon, viz.:—Provision of office accommodation in Adelaide, South Australia, for various Commonwealth Departments.

Mr. Groom having laid on the Table plans, &c., in connexion with the proposed work—

Question—put and passed.

PROVISION OF OFFICE ACCOMMODATION IN ADELAIDE, SOUTH AUSTRALIA, FOR VARIOUS COMMONWEALTH DEPARTMENTS.

REPORT.

The Parliamentary Standing Committee on Public Works, to which the House of Representatives referred for investigation and report the question of the provision of office accommodation in Adelaide, South Australia, for various Commonwealth departments, has the honour to report as follows:—

PRESENT PROPOSAL.

1. There are in Adelaide about a dozen branches of Commonwealth departments which are occupying rented premises in as many privately-owned buildings in various parts of the city. As this is said to be neither economical nor convenient, a proposal has been submitted to utilize a valuable vacant block of Commonwealth land adjoining the General Post Office by erecting thereon a suitable building, to be occupied by those various branches of Commonwealth departments.

DESCRIPTION OF THE BUILDING PROPOSED.

2. The building suggested to be erected is proposed to take in the front portion of the existing Telephone Exchange, and will then have a frontage of 126 ft. 6 in. to Franklin-street by a depth of 211 ft. 6 in. along Oddfellow's-place. It is to comprise a basement and five stories, be constructed of reinforced concrete, so worked as to give an outward appearance of stone, and so designed as to harmonize with the present General Post Office building. The plans submitted make no attempt to subdivide space to meet the requirements of departments, but the floor areas provided are all large open spaces conveniently subdivisible.

ESTIMATED COST.

3. The estimated cost of the building is set down at £115,000.

COMMITTEE'S INVESTIGATIONS.

4. In addition to taking evidence in Melbourne, a Sectional Committee visited Adelaide, took further evidence there, inspected the site, carefully scrutinized the plans and discussed the proposal with the City Engineer, the President of the Institute of Architects, and members of the Chamber of Commerce.

5. A visit was paid to the South Australian Branch of the Federal Taxation Department, and it was apparent that the conditions under which the officials in that office work are most unsuitable, and some relief should be given to them as soon as possible.

6. In the course of its investigations, the Committee ascertained that the Commonwealth offices in Adelaide are at present scattered all over the city, and that some of the offices are inconvenient and unsuitable. Most of them are held on leases, which will expire during 1922 or 1923, and there is always a danger in renewing such leases that an increased rental will be demanded.

At present an aggregate rental of £4,133 per annum is being paid for these rented premises, which, excluding the large hall used about once a month for the payment of pensions, works out at a little over 2s. 6d. per square foot per annum.

MINUTES OF EVIDENCE.

(Taken at Adelaide.)

THURSDAY, 23RD MARCH, 1922.

SECTIONAL COMMITTEE.

Present:

Senator NEWLAND, in the Chair;
 Senator FOLL Mr. Mathews.
 Senator PLAIN

John Smith Murdoch, Chief Architect, Department of Works and Railways, sworn and examined.

1. To Senator Newland.—The proposition before the Committee is to inquire into the advantages or otherwise of providing a new building in Adelaide for the purposes of the local branches of the Commonwealth Departments outside the Postmaster-General's Department, the Defence Department, and the Customs Department. In submitting the matter to Parliament the then Minister for Works and Railways said:—

"This proposal is to utilize the valuable vacant land adjoining the General Post Office by erection thereon of a suitable building to be occupied by local branches of the Taxation and other Commonwealth Departments. Economy is expected to result in the way of saving of rents now paid for privately-owned premises and by concentration of the Departments at one centre. In its report upon the extensive projected works at the Adelaide General Post Office, the Public Works Committee included a recommendation that a building such as is proposed be erected. The drawings submitted provide for a building of six floors of fire-resisting construction. Owing to portion of the site being in temporary occupation, the project would have to be executed in two sections, and the intention is that the first section would provide offices for the Taxation Department. The estimated cost for the complete building is about £115,000, details of which will be submitted in evidence to the Standing Committee during its investigations."

The site referred to and for which the building has been designed was purchased by the Government some years ago to meet expansion of postal requirements in Adelaide. At that time no definite idea with regard to the manner in which those requirements would be met had been arrived at, but, in 1920, the Public Works Committee investigated a projected method of

dealing with post-office accommodation, and it became apparent to the Committee that this particular piece of land would not be required for postal purposes. Therefore, in its report to the Government concerning the post-office building project it recommended that the land be utilized for the purpose of Commonwealth offices. The recommendation brought the whole subject up to a definite point. Since 1918, some consideration had been given off and on to the method of utilizing the land, but as it was not then quite clear what form the post-office expansion would take there was no very settled view as to how it could be done. However, the Public Works Committee's report having brought the whole question to definition, the Home and Territories Department wrote to the Works and Railways Department asking for the preparation of a scheme for utilizing the area in the manner now before the Committee. In a letter, dated 8th December, 1920, the Secretary to the Home and Territories Department wrote as follows:—

"I desire to inform you that the Secretary of the Postmaster-General's Department has advised that the proposal to remodel the General Post Office, Adelaide, was investigated by the Parliamentary Works Committee which decided that the provision therein was to be restricted to post-office purposes. The Secretary further intimated that the land adjoining is available for building purposes for other Departments if required. Will you kindly submit a preliminary design of a building to contain about 50,000 square feet with offices accommodation suitable for Commonwealth Departments in Adelaide. From the attached list you will observe that the Commonwealth is at present leasing 33,000 square feet of office accommodation in Adelaide. It is also probable that the Department of the Navy will require accommodation in the new building."

The area referred to is the site the Committee is now considering at the corner of Franklin-street and Odd-fellows-place. In accordance with the instructions contained in the letter I have just read the Works and Railways Department designed a building, plans of which are now before the Committee. The accommodation at present leased in privately-owned premises in Adelaide by the Commonwealth Government, and the rentals paid are shown in the following schedule supplied by the Lands and Surveys Branch:—

Purpose.	Premises and Address.	Annual Rental.	Square Feet.	Tenancy or Date of Expiration.
Public Service Inspector	Rooms 115 and 116, Brookman's Buildings	£ 2 4 6	730	24.1.23, thence monthly
Pensions	Rooms 117 to 123, Brookman's Buildings	332 8 4	2,410	24.1.23, thence monthly
Pensions	St. Luke's Hall	17 0 0	1,800	Monthly
Customs Office	Eagle Chambers, Pirie-street	225 0 0	855	28.12.23, thence monthly
Excise Branch (T. and C.)	Rooms 127 to 131, Brookman's Buildings	131 0 8	950	24.1.23, thence monthly
Audit Office	Rooms 61-64, 71 and 72, Royal Exchange Buildings	168 0 0	1,080	Half-yearly
Sub-Treasury	Rooms 57, 57A, 59, 60, 58A, and 5, Royal Exchange	250 0 0	1,557	Monthly
Shipping	Portion of Ground Floor, Currie Chambers	438 16 0	2,800	31.5.23
Taxation	First and Second Floors, and part of Ground Floor, Hindmarsh Buildings	1,752 0 0	14,544	19.9.22
Investigation Branch	Room 6 on Third Floor, Darling Buildings	91 0 0	365	31.5.24
Meteorological	West Terrace	50 0 0	600	30.9.30
			and use of about 24 acres	
Works Director	Portion of Top Floor, Selborne Chambers	175 0 0	3,000	7.6.23
Electoral	Portion of Top Floor, and Rooms 22-25, 30-40, on First Floor, Selborne Chambers	350 0 0	3,300	31.7.22
Electoral (Storage)	Destitute Buildings, 1 Room on Ground Floor	30 0 0	*	Quarterly
	Total	4,132 16 0	33,882	

* Area not available.

7. In the proposal for a building to accommodate the whole of the Commonwealth officials in Adelaide, with the exception of the Departments of Defence, Postmaster-General, and Customs, the Committee is assured that better, more fireproof, and more extensive accommodation can be given to the various departments at the same cost to the Commonwealth of 2s. 6d. per square foot per annum.

In addition, it is considered that the provision of suitable office accommodation, besides being more convenient for the public, promotes greater contentment and efficiency in the Service, and in that way is a good investment for the Commonwealth. Further, the Committee had to bear in mind the possibility of the early amalgamation of the Federal and State Taxation and Electoral departments. Under these circumstances, in view of the crowded and unhealthy conditions under which the officers of the Federal Taxation Department are working, the Committee has no hesitation in recommending that the whole of the Commonwealth activities in Adelaide be concentrated in one building, the property of the Commonwealth, and recommends accordingly.

SITE.

8. It was stated in evidence that the site on which it is proposed to erect the building was acquired by the Commonwealth in 1915 at a cost of about £24,596. It has remained unused until recently, when a temporary structure was erected on it to house certain of the postal officials during the projected remodelling of the General Post Office. Situated in the heart of Adelaide, and adjoining the General Post Office, the area is of considerable value to the Commonwealth, and eminently suitable for a building of the nature proposed.

This area was originally acquired to provide for future extension of postal business, and although the remodelling of the General Post Office now in hand will provide adequate accommodation for a period of perhaps twenty years, the postal authorities request that it be made a condition that, if at some future period the extension of postal business demands it, that Department be given first call on space in the building now proposed. The Committee considers this a reasonable request, and recommends accordingly.

9. When the proposal to erect a Central Commonwealth Office in Adelaide was first mooted, the Postmaster-General's Department intimated that the area adjoining the General Post Office suggested as the most suitable site was unlikely to be required for the purposes of that Department; since then, however, representations have been made that, in all probability, in the general scheme of telephone development of the City of Adelaide, the site will be required for an automatic telephone exchange within the next five years. It is stated that in the interests of economic wiring this exchange should be as near as possible to the General Post Office, which is approximately the theoretical telephonic centre of the district to be served.

10. The position arises that, if a portion of the land now available is set aside for a telephone exchange, the remainder of the area will be insufficient to carry a building of the dimensions necessary to house the other Commonwealth activities in Adelaide. Consideration was, therefore, given by the Committee to the two questions as to whether the projected building might be so designed as to include also space for the automatic telephone exchange when required, or alternatively that the larger site be retained intact for the building now proposed, and another site be purchased for the automatic telephone exchange when required.

COMMITTEE'S RECOMMENDATION.

11. After reviewing the matter from all points, the Committee is of opinion that it will be in the best interests of the Commonwealth to utilize this splendid site for the larger building, and that a suitable site, in close proximity to the present telephone exchange, be acquired for automatic telephone purposes.

H. GREGORY,
 Chairman.

Office of the Parliamentary Standing Committee on Public Works,
 Parliament House, Melbourne, 7th April, 1922.

I am not personally acquainted with the quality of the accommodation except in regard to the offices of the Works and Railways Department which are fairly good. I do not know definitely of any proposal in regard to increasing the rental of the offices in Brookman's Buildings, but I understand from what I have learned that there is a distinct possibility of another property-owner putting up his rental very considerably when the present lease expires. We are now paying, in Adelaide, according to the schedule which I have just submitted, about 2s. 5d. per square foot rental per annum. Since the receipt of the letter from the Home and Territories Department, the Postmaster-General's Department has pointed out that while it has no objection to this building going up it will always keep in reserve the right to use any part of it for post-office purposes. It wants that right reserved before it gives up the land. Of course, no one can say what the future of the Post and Telegraph Department will be, but I think that any further extension of the Post Office, Adelaide, is likely to lie in the direction of still further enlarging the existing building, rather than in extending on to new ground. The utilization of the postal building has not been exhausted by means of the building alterations in contemplation, but probably the Department is wise in placing it on record that, although it gives up this land, it still claims the first right to use it if it is necessary for the purposes of postal expansion. It is a question for the Government of the day when the difficulty arises, probably fifty years hence. The matter can be left to decide itself. It does not affect this building one way or another. It will be suitable for postal expansion if it comes along. As promised by Mr. Groom, in Parliament, I now submit for the Committee's information a detailed estimate of costs of the complete building. Mr. Groom said, in Parliament, that its probable cost would be about £115,000. That estimate was based on figures prepared in Melbourne. But, in order that the closer knowledge of local values held by the Department's branch in Adelaide might be availed of, a blank schedule was sent over to the Works Director in South Australia, so that he might fill in his idea of the rates for comparison with those we had had in Melbourne. The Works Director in Adelaide has done this, and when I arrived here yesterday he and I devoted the day to comparing each item on the estimates as filled in by him with each item of the estimates as filled in by head office. After compromising and discussing, whereas, at the beginning of our deliberations, there was a discrepancy of a few thousand pounds between us, we arrived at a total of £114,160 as being the probable value of the building when completed. That figure is astonishingly close to the estimate given by Mr. Groom to Parliament. The proposed accommodation in the building will be as follows:—

Floor.	Machinery Office Space, Complete Lighting.		Effective Office Space, Complete Lighting.		Space Provided for Post Office Exchange.		Total Effective Office Space, Complete Lighting.		Total Office Space, Complete Lighting.	
	sq. ft.	sq. ft.	sq. ft.	sq. ft.	sq. ft.	sq. ft.	sq. ft.	sq. ft.	sq. ft.	
Basement	11,720	5,130	1,326	13,055	2,783	15,818	11,720	5,130	13,055	15,818
Ground Floor	9,324	4,830	1,110	11,010	2,237	15,047	9,324	4,830	11,010	15,047
First Floor	11,020	5,130	2,100	13,120	2,783	15,818	11,020	5,130	13,120	15,818
Second Floor	11,720	5,130	1,326	13,055	2,783	15,818	11,720	5,130	13,055	15,818
Third Floor	11,720	5,130	1,326	13,055	2,783	15,818	11,720	5,130	13,055	15,818
Fourth Floor	11,047	4,841	1,081	12,165	2,783	15,148	11,047	4,841	12,165	15,148
	67,114	30,811	9,216	76,356	17,652	93,911	67,114	30,811	76,356	93,911

The effective space means office space—outside essential corridors, staircases, and lavatories. The building will essentially have to be erected in two sections, as part of the site is now occupied by temporary buildings,

housing branches of the post-office which have been dislodged on account of the new works soon to be started on the General Post Office building. It is intended, in the completed building, to improve the accommodation for the administrative branch of the telephone branch of the Postal Department. The girls will also have better retiring accommodation and a sick room. This work will come into the second section, which will be undertaken immediately the alterations to the General Post Office are completed, because if we dislodge the telephone officials now in order to carry out the required alterations we have nowhere to put them. When the alterations to the General Post Office are completed we can temporarily house them there. The space in the new building occupied by the Telephone Department will not be available to other Departments. It will be devoted to the improvement of the space now occupied by the administration of the Exchange, and for the recreation and welfare of the telephonists. Thus, 9,245 square feet of the new building will be taken up by the telephone branch, and will not be available for housing Commonwealth Departments generally. The Telephone Exchange itself, which will be incorporated in the new building, will remain unaltered, but there is an area of land available for its extension when the time comes for it. This 9,245 square feet has to be added to the 67,114 square feet which I have mentioned as being the effective office space for the complete building. The total effective space will thus be 76,356 square feet. The Committee will get an idea of the amount of space taken up by corridors, staircases, lifts, and lavatories from the table I have given, which shows that 17,552 square feet is utilized in this way. The total gross floor area, including corridors, &c., is 93,911 square feet, as against 76,356 square feet of effective space. To secure this amount of effective space we estimate it will be necessary to expend £115,000, representing a charge of about 2s. 6d. per square foot per annum, in comparison with the 2s. 5d. per annum rental now paid in Adelaide. I make my calculation on the basis of 7 per cent, which is made up as follows:—5 per cent interest, 1½ per cent maintenance, a high charge for a building of this kind, and ½ per cent for liquidation of capital or sinking fund, also a high charge for a building of this class. I include the value of the land at £20,000, but, of course, I am only loading the land to the extent of 5 per cent, not making any allowance for maintenance or sinking fund. I do not know that the land is actually worth £20,000, but its value to the Government is now approaching that amount, and unless the loss of accumulated interest is arrested, possibly the value will speedily mount up to a sum which the Government will probably never get return for. It is now being partly used, and is, therefore, reproductive to a certain extent, but not commensurate with its value. It should be made use of in some form or another. I think it will be found that this Government will get a better proportion of service per square foot of floor area in a building of this class with large offices and large open spaces thoroughly well lit than it would secure in any promiscuous buildings that could be rented. A saving will be effected in administration by having the offices concentrated in one building. Taking into consideration the time lost by the public and the inconvenience people suffer through having to go to different centres, some of which are not situated in the middle of the city, to do business with the Government Departments, it will mean a lot to the public generally to have these Departments concentrated right in the middle of the city. Therefore, the people doing business with the Departments will save time. It is by no means certain that we can continue to enjoy the rented accommodation we have in Adelaide at its present price. Another advantage the Government will derive by erecting

this building is that it will at once arrest the leakage I have already referred to through having the land vacant. I have deputed my figures with the amount of interest accumulated on the purchase price of this vacant land. I have made out as bad a case as possible against the site. Again, there is the loss occasioned through illness to staff due to unsuitable premises, badly lighted offices, and badly heated offices. The new building will be properly heated with hot water and thoroughly ventilated and lighted, and the records will be kept comparatively secure in a fireproof building. We estimate that the cost of the first section will be £50,000, and the cost of the second section £65,000. All engineering services are included in the cost. The building will be of six stories. It is undesirable to contemplate going higher on account of the proximity of the General Post Office, and the expectations existing in Adelaide that we should do nothing to outrage that building which is regarded by the people of Adelaide as being a beautiful one. The class of building proposed is an economical one, but quite modern in every respect. It will be fireproof. We do not propose to spend a lot of money in ornamentation. It will be heated, ventilated, and lighted in the most modern way. In order to bring it into exact unison with the General Post Office people might expect it to be constructed in stone, but the economical result of doing that would be disastrous. The Department considers that there is no real necessity for it, and that if we have to construct the building to have an outward appearance of stone, as is being successfully done in many commercial buildings in Adelaide, it will be all that is necessary. We could not, without loss, maintain all the horizontal lines of the General Post Office, but we have been able to maintain in our design the main horizontal lines of that building, leaving the detail between these lines to depart from the General Post Office design. That method of design is the theory practised in countries that exercise censorship over the designs of street buildings. It is not altogether the detail that the eye looks for. If the main lines are sympathetically arranged, and all in line with each other, it is all that is necessary. When the time comes to increase the height of the post-office building, I anticipate that still greater sympathy will be obtained between the General Post Office and the proposed new building for Commonwealth offices. That is to say, the proposed new building will, at first, be two stories higher than the General Post Office, but should two stories, or even one storey, be added to the General Post Office, the sympathy of the two buildings will thus be increased. There is a gap between the two buildings. That will continue to be the main mail entrance. As I have explained before it is intended to incorporate the Franklin-street end of the present Telephone Exchange in the new building, and to take the opportunity of improving the present accommodation for the telephone staff and administration. The new building at the Telephone Exchange, or eastern end, will be only 40 feet deep where it passes over the existing end of the exchange. The floors of the new building and the telephone exchange will not all be level, but the inequality will be taken up by staircases which will give off at the different levels between the old building and the new. In some years the telephone exchange will possibly be vacated, and then its height can be brought up to the level of the new building in the form of new offices. The new offices will have a frontage of 126 ft. 6 in. to Franklin-street, 211 ft. 6 in. to Oddfellows-place, and 82 ft. 3 in. to the lane to the north of the post-office property. No attempt has been made to apply any of the space to the individual requirements of any Department except that when the first section is completed the Taxation Department will have first claim on the space provided. That section will provide 30,300 square feet.

The Taxation Department is now occupying 14,500 square feet of rented premises, but it is known that it anticipates requiring in future something like 40,000 square feet or 50,000 square feet. However, if the new building is proceeded with, and the Taxation Department comes into it it may be assumed that 20,000 square feet of space would meet its requirements at the beginning, leaving about 10,000 square feet available for other Departments. Outside the single understanding that the Taxation Department is to have first call on the first section of the building, no consideration has been given to the claims of other Departments. No attempt has been made on the plans to subdivide the space to meet the needs of Departments, but the floor spaces will all be large open spaces conveniently subdivisible. The whole of the area of the block of land will be carrying a building to its full capacity. The only further additions to the building project will be with the existing telephone exchange, which could conveniently be brought up to the level of the new building and become part of it, providing considerable additional floor space. Access to the new building will be had by two independent entrances in Franklin-street and two independent entrances in Oddfellows-place. From the top to the bottom of the building it is proposed to have three continuous fireproof staircases each contiguous to a lift. The telephone staff will occupy the eastern end of the building, and they will have one staircase and one lift exclusively. All the other Departments would have two staircases and two lifts. The eastern entrance on the ground floor in Franklin-street will give access to the portion of the building occupied by the telephone staff. A room is provided for the telephone manager, another for the sub-manager, and a large room 32 ft. by 27 ft. 6 in. for the clerical staff, where the public would do business in connexion with telephone administration. Another room, 25 ft. by 19 ft. 6 in., is provided for the statistical section; and for the traffic inspectors connected with the telephone branch. Still another room, 15 ft. by 13 ft. 6 in., is provided for the staff supervisors. The remainder of the space on the ground floor has not been subdivided to meet the needs of any particular Department. I can only give the Committee the large spaces which are suitable for convenient subdivision. Entering from the western door in Franklin-street on the right is a room 19 ft. by 53 ft., and on the left another 63 feet by 18 feet. Continuing along the corridor on the right is a room 61 ft. 6 in. by 31 feet, and on the left a room 60 ft. 9 in. by 22 feet. Further along the corridor there is a room on the right 53 feet by 54 feet, and on the left a room 60 ft. 3 in. long by an average width of 20 feet. The corridor is 9 feet wide. The subdividing walls are 3-in. concrete. The same arrangement is adopted in the Commonwealth offices in Melbourne. The whole of the floors in these offices could be cleared in a few days, because the partitions are doing no structural work. There is a light area, 25 feet by 100 feet between the telephone building and the new building. An excavation will be made here to afford light to the basement, which runs through out the whole building. Each floor will have two sets of latrine accommodation. These latrines are at the back of the building with obscure entrances, not seen from the corridors, and situated on the staircase landings. The latrines will have an open air platform approach. On the ground floor also in connexion with the two large rooms facing Franklin-street there will be four strong-rooms. On the other floors strong-rooms are more liberally provided. On the ground floor also there will be accommodation for messengers and inquiry officers. The basement will be provided in every respect with accommodation similar to that on the ground floor. The portion given over to the telephone work will contain a battery room and a large space for storage of cables, accessories, and other articles belonging

to the Telephone Department. On the basement floor still more liberal strong-room accommodation is provided under the entrance to the main building. Under each entrance there will be three strong-rooms and a main switch-room is provided for the electrical services brought into the building. The basement will also contain the latrine accommodation for the male staff of the Telephone Department. The lighting of the basement will be secured by prismatic lights in the pavement in addition to the vertical windows 5 feet high in the front of the building, so that the rooms there can be used if necessary as offices. The accommodation facing the area behind will be lighted by windows of the full height. All the rooms in the basement can be used either as offices or for the storage of records. On the first floor the telephone accommodation will be a large cloak and locker-room suitable for the requirements of the telephone staff, a rest room for the girls, a medical observation room for the girls who fall ill, and a school room. The remainder of the space throughout the first floor is exactly as described for the ground floor, with the same large rooms, strong-rooms, and separate latrine accommodation. On the second floor the telephone accommodation is somewhat similar to that provided on the floor below. There will be a luncheon room for the monitors, and a separate luncheon room for the operators. The remainder of the floor space is just as described on the other floors; large spaces capable of being kept large or divided to suit requirements of Departments. I anticipate that it will be mostly used in large spaces, and that there will not be so much corridor as is shown on the plans. On the third floor the telephone accommodation will be a dormitory containing five beds for girls who are indisposed, and a toilet room. Off the dormitory there will be a bathroom, a fumigating cupboard, and a store for linen. Off the toilet room there will be lavatory accommodation with a fresh air cut off. On the fourth floor the accommodation for the Telephone Department is dropped out altogether. The whole of the accommodation provided for will be for Departments outside the post-office, and in the same form as on other floors. I have provided on this floor a flat roof on each corner of the building in order to soften the break between the post-office and the higher building. The basement will be 13 feet high, the ground floor 15 feet high, the first floor, second floor, third floor, and fourth floor each 13 ft. 6 in. high. The reason for having these high floors is that if the area of accommodation is left in one big room a ceiling lower than 13 ft. 6 in. high would not be proportionate in appearance. It would be healthy enough, but would not look so well. Therefore to meet the contingency of the rooms being used as large rooms the height of the room is to be 13 ft. 6 in. As the Committee will remember, a hot water scheme has been introduced for heating the General Post Office, and we intend to make use of that apparatus for heating this building also. If it is desired to have dining accommodation in the new building one of the rooms on the top floor can be used for the purpose. We have not allocated any of the floor space to any particular function. The floors will be jarrah in narrow boards, nailed directly into the concrete without the intervention of joists. The corridors will be laid with jarrah blocks lying in bitumen on the concrete. The entrance vestibule on the ground floor will be laid with Angaston marble. The walls coming into the vestibule will also be lined with this marble. There will be granolithic steps in the staircases 4 ft. 6 in. wide. There will be three automatic electric lifts 7 ft. 6 in. by 6 feet, a size which will enable them to take big loads. There will be a flat concrete roof approached by stairs. It can be used for recreation. There will be no structures on the roof except the covering of the lift machinery, which will not be seen except at a distance from the building. There will be very little risk of fire. The

usual fire services will be provided. There are higher buildings in Adelaide. This building will not be too high for the water pressure to reach the top. The same form of floor construction to be adopted in the altered post-office is to be adopted in this building, a modification of the mushroom construction suitable for floors with light loads. The floor load in the average store would be from 100 lbs. to 400 lbs. per foot. Here we can calculate on a load of 80 lbs. per square foot. The sashes and frames of the windows will be of steel. I do not think that wire glazing will be necessary. The fire risk would only arise from our own property adjoining. There is a wide right-of-way at the back of the building, and no fire on the other side of the adjoining streets is likely to affect us.

2. *To Senator Foll.*—We are making provision for twice the space at present required by the Commonwealth Departments in Adelaide. The portion of the site not covered by the first section of the building will be occupied by temporary buildings belonging to the Post Office for the next three or four years, so that we shall not be able to go on with this building to its full size until that time. In order to make provision for the Taxation Department we suggest that we should go on with half of the building now, that is, the northern half. Of course, if the Federal Taxation Department disappears, the accommodation will be there to be let to tenants if the Commonwealth Government does not use it. It will be a suitable site for getting a fair rental return. It is the next building to the Post Office, which is supposed to be the Charing Cross of Adelaide. It is a very good thing in every capital city for the Government to keep in mind the necessity for being in a position to provide office accommodation as it is required. Looking at the question broadly from that stand-point, there is no doubt whatever that the opportunity is presented to bring about such a condition of affairs in Adelaide. We have the land, and it could be utilized by this building and extensions to it, unit by unit, as the necessity arises. The land has cost the Government in purchase money and in accrued loss of interest about £30,000. If this loss of interest continues at the rate of 6 per cent. on £30,000 it means £1,500 per year. Therefore, as an ordinary business proposition the earliest possible steps should be taken to make the area reproductive. Any ordinary business man would do it with a block of land in the middle of a city. It will be good business for the Government to concentrate all their offices in Adelaide in one building, at a cost of £115,000. They will be saving money in many directions. Even with building construction at its present high cost, I think it will be a good step for the Government to take. The cost of several materials has come down distinctly. Cement is slightly cheaper, steel is considerably cheaper, and some varieties of timber are decidedly cheaper. There has been no change in the cost of labour or bricks. I anticipate that there is a possibility of this building costing less than our estimates; but as there is so much human error in prophesying, I hesitate to say that this will be the case. I anticipate, however, that the financial aspect of this matter will be easier to the Government than our figures to-day suggest; and by the time this building is erected I would not be surprised to see it cost 10 per cent. less than our present estimate. After actual construction is begun, the first section, to cost £30,000, should take something like twenty months to build. We shall be obliged to put up a temporary wall, which may cost £700 or £800.

3. *To Mr. Mathews.*—I should think that, if necessary, space could be provided in the new building for Federal members. I have not heard of any complaint that the scattered nature of the Commonwealth offices in Adelaide has an effect on public business. The principal complaints I have heard are that the offices now occupied by Commonwealth Departments

are overcrowded, not fireproof, and badly ventilated and lighted. The public have not yet enjoyed the conditions of having the Commonwealth offices concentrated, and consequently have not realized the inconveniences to which they are being put. I think it is quite clear to every one connected with the Government that it is an advantage to have concentration of offices in each city. Steps are now being taken to bring this about in Sydney and Melbourne, and we have started on a program to do the same in Brisbane. It has already been done in Perth. This Committee is now considering the matter for Adelaide. The rental paid by the Commonwealth to private owners, although it is 2s. 6d. per square foot per annum at the present time, may be higher when the present leases expire. That has been the experience elsewhere. The original cost of the block of land on which the building is to be erected was £23,700. The purchase was made seven years ago. With loss of interest on that amount, the present value to the Commonwealth is a little over £30,000. There will be no necessity to make provision for vehicles to get into the light space between the telephone exchange and the new building. Access to the basement of the telephone exchange is obtained from the post office right-of-way. We are providing for all the usual fire appliances.

3A. *To Senator Foll.*—In preparing the design, we have paid due consideration to the fact that the State Government may hand over to the Federal Government the control of taxation and electoral matters. If the Commonwealth Government do not seize an opportunity like this to provide and extend accommodation for these various functions they will not be doing their duty. The public have been very long-suffering in regard to convenient offices, but the trouble is now being gradually overcome. One of the worst features at the present time is that development along these lines is not so attractive a proposition as it would be if building were cheaper.

4. *To Senator Plain.*—Tenders could be called for the building within two months. The working drawings are complete, and a number of the detail drawings. The specifications have yet to be written, but they could be completed in five or six weeks. No provision has been made on this year's parliamentary estimates for this work. In any case, however, there would be very little expenditure undertaken before the next estimates were authorized. A danger of the existing rented offices is the risk of fire. Another source of leakage in occupying rented premises is the sickness of the staff, and the impossibility of having proper supervision. The service in the new buildings should be more economical and more satisfactory. It will be possible to have a dining room on the roof of the new building, but I should not like to see one put there. Some day in the future we may be obliged to do something of the sort, but there is no necessity for doing it at present. I would rather go on extending the building as required. In any case I would allow the staff to promenade on the roof.

5. *To Senator Newland.*—I am allowing 9s. a yard for the removal of spoil from the basement. It will have to be carted to the Mile End railway yard to be disposed of. The trouble is that Adelaide is a level town, and no one requires spoil for filling purposes. The cost is in the cartage. On the flat roof there will be reinforced three-ply malthead lath on concrete bedded in mastic. That is to make the flat roof waterproof. I am satisfied that we can get a good foundation. In connexion with the General Post Office we had to sink a shaft to the gravel bed to dispose of the surface water. That shaft will be used for this building also. If it were not for the hot water boiler in the post office it would be necessary to provide £4,500 instead of £3,300 for a hot-water service in the new building. The building will be plastered smooth

inside, and to imitate sandstone outside. The cost of plastering will be a big item, but the biggest will be the concrete work on the floors and staircases. We propose to call tenders for the work. There would be very few fittings in it. Those the Departments will bring with them. All engineering costs are provided for in our estimates. No caretaker's quarters will be provided for. It is far better to have a watchman coming on duty at night, and remaining awake all night. No provision has been made for installing a vacuum cleaning apparatus. A portable one will probably be obtained. We are proposing to install in other buildings a portable apparatus instead of introducing pipes and connecting the hose at different points.

6. *To Mr. Mathews.*—The temporary wall will be waterproof. It will be a 9-in. wall, and the bricks in it will be used when we go ahead with the second section.

(Taken at Adelaide.)

FRIDAY, 24th MARCH, 1922.

SENATORIAL COMMITTEE.

Present:

Senator NEWLAND, in the Chair;
Senator FOLL, | Mr. Mathews,
Senator PLAIN, |

Harold Bruce Jackson, Acting Chief Clerk, Federal Taxation Office, South Australia, sworn and examined.

7. *To Senator Newland.*—I have come to tell the Committee the accommodation required by the Taxation Office, and that which we now occupy in rented premises. The information I shall give has been prepared by Mr. Hamilton, the Deputy Commissioner and myself. It is as follows:—

The offices now occupied by the South Australian Branch of the Federal Taxation Office are located in Hindmarsh Buildings, which are situated at the corner of Grenfell-street and Hindmarsh-square, about 880 yards from the General Post Office. The existing lease expires at the end of September next, the rent payable thereunder being £1,752 per annum for 17,192 square feet of space, or approximately 2s. per foot. Of the total space of 17,192 square feet, approximately one-quarter, or 4,078 square feet, is taken up by corridors and lavatories, inquiry room and lobby for public, luncheon room for females, and filing presses for returns, leaving about 13,114 square feet as a working space for the present staff of 250 officers, which gives an average floor space per officer of 52.5 square feet. Owing, however, to the unsatisfactory "lay-out" of the premises, the average space per officer is not uniform, and cannot be made uniform under existing conditions. Considered from the aspect of efficient organization, the present premises are unsatisfactory because—

- there are too many partitions and corridors;
- lift accommodation is inadequate;
- there are no strong-rooms.

The highly important papers kept in the office are subject to constant danger from fire because of—

- the absence of strong-rooms already mentioned;
- the presence in the same building of a furniture shop.

A further and important reason for the present premises being unsatisfactory is that the staff has complained from time to time of unsuitable working conditions, and a medical report received consequent upon a visit from representatives of the Commonwealth Department of Health goes to show that in the Assessing Branch—

- (a) there has been overcrowding and inadequate ventilation;
- (b) conditions have existed which favoured the spread of tubercular infection;
- (c) reforms should be at once initiated regarding air space and ventilation.

In this connection it may be added that the system of ventilation in the Assessing Branch is the same as that in other branches. There have been cases of pulmonary disease in the office, and the medical report shows that they have been due in part to the conditions of work—insufficient ventilation and heating, excessive draughtiness, and insufficient air space. If the desired reforms are to be made, the only practical course open is to secure enlarged premises, and the Deputy Commissioner has advised that it may be possible to secure an additional floor in the present building. The space now occupied consists of the first and second floors, and part of the ground floor, and, as already stated, covers 17,192 square feet. The third floor, if secured, would give an additional space of about 7,150 square feet, or a total space of, say, 24,342 square feet. The average staff provided for on the Estimates for the coming financial year 1922-23 is 289, or an increase of about 20 per cent. of the average staff which has been employed to date during the current financial year. It is probable that the 24,342 square feet referred to will suffice for the Department for the next three years, say, until October, 1925. This area includes corridors, &c.; the net working space being approximately 19,950 square feet only. If a modern building were made available during 1925 it would be advisable to reserve at least 24,000 square feet, exclusive of passages and lavatories, as a working space for the staff. A further provision of, say, 6,000 square feet should be made for future expansion, giving a total of 30,000 square feet for the administration of the Federal Taxation Acts during the next ten years. The somewhat conservative increase between the requirements of 1925 and 1923 may be accounted for by the probability that, whilst there would be a normal growth, the Department by that time should have succeeded in discovering the majority of defaulters for the earlier taxation years. To provide additional accommodation in anticipation of the amalgamation of Federal and State Taxation Departments, it is estimated that such provision should be about 12,500 square feet, or a total of 42,500 square feet, to house the joint Federal and State staffs. The staff employed at present by the State Taxation Department is believed to be less than one-half of that employed by the Federal Office, but the space available for the use of the State Department is possibly not less than 15,000 square feet, as compared with 17,200 square feet now occupied by the Federal Department. The foregoing estimates have been made on the assumption that the Federal taxation laws will maintain their present general characteristics. Provision of modern office accommodation fully equipped with passenger lifts, and, if deemed necessary, with subsidiary smaller lifts for the speedy passage of files from floor to floor, would tend to reduce the number of messengers employed. An inspection of the plans of the building proposed to be erected in Franklin-street lends the Deputy Commissioner to

say that such a building would clearly be more suitable than the one now occupied, even if it were necessary for a time to occupy four half-floors. It would be advisable, however, to provide that the Taxation Department could ultimately spread out by occupying full floors in the completed building, because of the obvious advantages to be derived in improved organization and supervision of a large staff. The advantages of a central situation for the Federal Taxation Office rest mainly upon the facts that the majority of taxpayers reside in the metropolitan area of the State, and in the majority of payments of tax are made in person. The following table shows the comparative distances from (a) present premises, and (b) General Post Office corner, of the various public offices, &c.—

	(a) From Federal Taxation Office, Yards.	(b) From General Post Office, Yards.
To General Post Office corner	880	—
To Commonwealth Bank, Sub-Treasury and Audit Department	550	240*
To State Taxation Office	640	240
To Survey Office	840	44
To Lands Titles Office	880	200
To Commonwealth Public Service Inspector (pre- sent site)	350	500
To Electoral Office (present site)	550	310
To Supreme Court	1,300	400
To Railway Station	1,400	850

From the point of view of the public travelling by either tram or train, the advantages of the General Post Office site are obvious. On the other hand, three or four of the officers of the Department are continuously employed visiting various State and Commonwealth offices, so that the travelling time which would be saved to the Department by a removal to the proposed new site would be quite considerable. Reasons in support of the provision for increased accommodation may be summarized briefly—

- (1) A large proportion of the staff performs high-class work of a technical nature, and, generally speaking, all classes of officers work under conditions of stress for a more or less lengthy period each year. Provision should be made for luncheon rooms for both male and female officers.
- (2) The work of tracing defaulters is proceeding, but is by no means complete, and some years must elapse before the Department's requirements in accommodation will depend only on the three factors of (a) industrial and economic conditions, (b) increasing population, and (c) possible changes in legislation.
- (3) At the present time, filing accommodation for both returns and index cards is inadequate, many of the filing presses being overcrowded. Not only should filing accommodation be adequate, but also the floor space available must permit of the presses being arranged with a view to good working conditions and supervision.
- (4) The number of new registrations of income tax returns in respect of the last three taxation years is shown hereunder—

1919-20 returns, due by 31st August, 1919—14,000.

1920-21 returns, due by 31st August, 1920—20,000.
1921-22 returns, due by 31st August, 1921—14,000.

- (5) The necessity for action by the Department to secure lodgment of returns which should have been lodged voluntarily is shown by the figures extracted at the 28th February, 1922, as follows:—

Returns for financial year.	Due August.	Lodged to 28th Oct.	No.	Lodged to 28th Feb., 1922.	Increase.
1918-19	1918	1918	76,000	65,283	10,717
1919-20	1919	1919	85,193	87,856	2,663
1920-21	1920	1920	65,955	116,537	50,582
1921-22	1921	1921	107,701	111,728	4,027
					69,437

- (6) The total number of returns received in the calendar year 1920, 109,620, in respect of the six financial years 1915-16 to 1921-22, inclusive, was as under, and discloses an average annual increase in returns received of about 14 per cent.—Calendar year 1919, 100,741 returns, 8 per cent. increase; calendar year 1920, 109,708 returns, 11 per cent. increase; calendar year 1921, 136,102 returns, 24 per cent. increase.

- (7) The Inwards Correspondence received (excluding taxation returns) during the last three financial years has been—Year ended 30th June, 1919, 35,620; year ended 30th June, 1920, 55,013; year ended 30th June, 1921, 93,784.

- (8) The foregoing figures disclose a steady increase in the returns received, all which must be examined by assessors to determine whether they are taxable or non-taxable. The Federal system of taxation calls for a greater amount of work in the examination of returns than does that of the State, consequently a comparatively larger staff of assessors is required. Again, the Income Tax Assessment Act has recently been amended to provide for the averaging of the incomes of primary producers, and this innovation can be expected to necessitate increases in staff from time to time. Moreover, the ambit of Federal income taxation covers a greater number of taxpayers than does the State legislation. Consequently there must be greater provision for records and for records staff.

- (9) With the development of the Department, the already thorough character of the assessing work will steadily improve, and in combination with increased activities of investigating officers, will result in an increase in the ratio of taxable to non-taxable returns, thus increasing the number of assessments to be issued and tax to be collected?

- (10) Improved working conditions in building of which the fair charge for rental to the Taxation Department would be less than the present rental of 2s. per square foot, would reduce the percentage cost of collection.

If the number of returns continues to increase in the ratio of the past there will be a slight increase in the number of staff employed. In our present premises the Deputy Commissioner has ample room, but the Assistant Commissioner's room is only 14 feet by 12 feet. These rooms are on the ground floor. The entertainments tax officers are badly off for room. They are obliged to work in a room 18 feet by 14 feet on the ground floor. On this floor also there is a room 28 feet by 38 feet occupied by the cashier and his staff. The space for the public is 17 feet by 37 feet. All inquiries and payments are made on the ground floor. On the first floor the records branch has two rooms connected by an opening in the wall, the total space being, approximately, 92 feet by 28 feet, including all filing presses. The Chief Clerk and the staff clerk are situated on the first floor, in a room 21 feet by 17 feet. The mailing room is 30 feet by 29 feet, the store-room 28 feet by 20 feet, the luncheon-room, for females, 41 feet by 23 feet, and the correspondents and typists' room 52 feet by 23 feet. On the second floor the Land Tax Records Office is 41 feet by 22 feet, inclusive of filing presses. The Valuation Branch occupies a room 42 feet by 23 feet. The chief valuer's room is 29 feet by 9 ft. 6 in. The Statistics Branch is in a room 39 feet by 14 feet. The Default Branch occupies 23 feet by 41 feet space, and the Assessing Branch 57 feet by 52 feet. If we secure the floor above we will have an additional gross space of approximately 7,150 feet, of which 1,000 square feet will be absorbed by corridors. There are additional lavatories on the third floor which would be available for any of the staff placed on that floor. There are no strong rooms in the building. If our documents were burned it would be a very serious loss to the Department. All our titles, and deeds, and extra important documents are locked in a safe in the Cashier's Branch on the ground floor. The bulk of the records are simply stored in ordinary presses. The provision of adequate strong-room accommodation is an urgent necessity. Income tax returns, which contain balance-sheets and profit and loss accounts, may be classed as important documents. The whole concern is a pretty bad fire risk. There is a furniture shop on the ground floor in the building we occupy, and a picture-machine agent is also located in the building, but he does not store films. There is a motor cycle establishment on the ground floor, and a wholesale soft-goods merchant also. At the rear, across a narrow lane, is Fentz, Schless, and Felstrod's warehouse. The basement is occupied by a furniture man, who stores linoleums there. The position is very dangerous. Some of the staff have complained, and their complaints were referred to the Works Director, following on which an investigation was undertaken by the Commonwealth medical authorities. These officers investigated the causes of sickness, and examined all the medical certificates supplied by the staff. Statistics relating to these have been furnished in Dr. Hohe's report, from which I have extracted the following figures:—

Average days' sickness per employee—	
Males, 18 and over	.. 9.31
Males under 18	.. 11.93
Females, 18 and over	.. 13.98
Females under 18	.. 2.
Totals—18 and over	.. 10.78
under 18	.. 1.
Grand total for all employees	10.64

The Melbourne average, I understand, is 10.6. There is only one lift in the building used also by tenants on the third floor. Messengers have to be employed in taking documents from one branch to another. The lift is in such constant use by other persons that our

messengers are usually crowded out, and this causes delay. We do not send documents to the Survey Department. Our officers go to the Lands Title Office to examine plans and make extracts and copies. It occupies a considerable time, because our office is half-a-mile away. Probably our journeys to and from the Post Office are most frequent. We collect and deliver our own mails at the Post Office. In the luncheon-room there is a couch; there are also two lockers. There is no retiring-room where a sick girl can lie down. If a girl falls suddenly ill, as sometimes occurs, we have to send her to her home. There is a gas ring in the luncheon-room where the girls can make tea. No luncheon-accmodation is provided for male employees. I believe that the health authorities would compel a private employer to take steps to improve the working conditions which are under the requirements of the Act. In regard to the apparent decrease of the registrations of returns in 1921, generally speaking, the year ending 30th June, 1921, was a period of prosperity as compared with the previous year. There was practically very little unemployment, and wages had increased. Consequently a large number of persons who were previously not liable to make returns had to lodge them in that year. There was a drop in the following year, indicating that the work of the Department was not growing to the same extent as in former years.

8. To Senator Foll.—There will be a reduction of revenue owing to the recent amendment of the Act, but it will not be very substantial. The people will still have to make returns, but the revenues derived will be somewhat less. Our work will be practically the same. Whereas, a man who had an income of £100 previously had to lodge a return, the minimum has now been raised to £104, so that there is only a difference of £4 on which to work.

9. To Senator Plain.—The staircase in the building we occupy now is wooden. The premises were originally used as a boot factory. There have already been two fires there. The lift is electrical, and all iron. There is also a wooden staircase at the back. The health statistics were taken for the year ending 31st December, 1921. Messengers are employed by us to do the mail work. A search clerk visits the Lands Title Office. Officers of our Department are continually at the Courts for the collection of taxes and the recovery of moneys under judgments. The building we occupy is very defective in regard to the preservation of the secrecy of returns. As the tenants on the third floor use the same stairs and corridors it would be practically impossible to prevent collusion on the part of any of our officers with these people.

10. To Senator Foll.—We would require 12,500 square feet of additional space if the State Government handed over to the Federal Government the collection of the State Taxation. I believe that if that were done it would be a source of saving to the taxpayers of South Australia.

11. To Mr. Mathews.—In arriving at the cost of collection figures our Department takes into account the rent of the premises we occupy. If we are housed in a Government building it will be a fair charge against our costs to debit us with so much per annum as rent. I do not know what the estimated cost of new offices will be, but I know that when we come to renew our present lease our rent will be more than 2s. per square foot. Approximately, half our employees are females. The conditions under which the staff work are not conducive to the best service. Supervision is difficult, owing to there being so many corridors. Mr. Hamilton has seen the plans of the new offices, and he approves of them, generally speaking. There is a caretaker who lives in the building we now occupy.

The witness withdrew.

Charles Herbert Uttley Todd, Commonwealth Works Director for the State of South Australia, sworn and examined.

12. To Senator Newland.—Mr. Murdoch having dealt with the building itself, I propose to confine my remarks to the proposed occupants. At present there are certain Departments scattered over Adelaide. When I came here two years ago the lease of the premises provided for by the Taxation Department had just expired, and to renew it we had to pay an increase of 25 per cent., which was below the figure originally asked by the owner, which we were successful in getting reduced. Since then, however, the Taxation Department has re-assessed city property, considerably increasing the taxation upon it; and I am aware that as soon as the present lease expires we are faced with a large increase in rent. It is quite safe to assume that if the growth of rental was 25 per cent. between 1917 and 1920, it will be 25 per cent. again, so that the premises we now secure for £1,752 per annum will probably cost us a further 25 per cent. on that amount. Mr. Jackson, in giving evidence, mentioned that the floor space of the Taxation Department was rented at 2s. per square foot. He was referring to the gross area. The effective floor space occupied by his Department is just under 14,000 square feet. Mr. Goodwin, the Commonwealth Surveyor, rather overstated the effective floor space in the return which Mr. Murdoch quoted yesterday. The effective floor space in the Taxation Department is costing us per square foot just under 2s. 6d., and over 2s. 5d. If we have to pay an increase of 25 per cent. on that, which I do not doubt we will have to pay, it would bring the annual rental of the Taxation Department to over 2s. per square foot of effective floor space. At the time these premises were leased, they were the only buildings with the amount of space required available. We had to take them, and once a Department occupies a building like this it is a very difficult matter to shift, unless you are forced to do so. There is a decent building in Currie-street of fairly modern construction, which has been erected since the Taxation Department commenced operations. It does not afford the conveniences proposed to be given in our Commonwealth building, and yet the occupants are being asked to pay between 4s. and 5s. per square foot. The poorest offices, situated around the light wells, are rented at 4s. per square foot, and the best offices are rented at 5s. per square foot of effective floor space. In Darling Buildings we are now paying 4s. 4d. per square foot for effective floor space for an office for the Investigating Officer. Our offices in Brookman's Buildings are rented at 2s. 10d. per square foot for all floor space, effective and non-effective. The sub-Treasury is paying nearly 5s. per square foot of effective floor space for its accommodation in the Royal Exchange Building, in King William-street. The Customs Department are paying 5s. per square foot for office accommodation on the ground floor in Eagle Chambers, Pirie-street. Against this we have to set the Electoral Branch, which is paying only 2s. per square foot, and the Works Director's Office, for which the rent is under 1s. 6d. per square foot. However, when the latter lease expires I have not the slightest doubt we shall be obliged to pay a considerable increase if we wish to renew. These leases were all made in the time of depression, when it was not sure which way the war would go. I am entrusted with the task of renewing leases, and my conviction, based on past experience, is that we are faced with an all-round 20 per cent. increase within the next two years for the premises we now occupy. Any possible reduction in the rents of private premises is counterbalanced by the increase in taxation. There has been a heavy re-assessment of city properties to produce revenue, and this has to be passed on. The rents in Alma Chambers

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have been doubled since I came to Adelaide. There is no Australian city in which properties have not increased in rental value. The question of the health of the taxation officers has been briefly mentioned by Mr. Jackson. I do not think he sufficiently emphasized the serious condition of affairs that might easily obtain in the existing premises if we are to be guided by the medical officer's report. The necessity for the removal of the officers is more serious than Mr. Jackson has told me that we ought to get the employees into better premises at the earliest possible date. The tenor of his report is that a large amount of the sickness in the offices is due to the confined quarters in which the staff are working. The medical officer has assured me that, for a couple of years' further occupancy, with the safeguards he recommends, it is not worth while making two moves if we are to have Federal offices built. He recommends that more space should be occupied, and that the ventilation should be improved. We propose to take more space on the third floor, which, of course, will immediately increase the cost of running the Department, and induce a more favorable comparison with the Commonwealth building proposal. When our leases expire, in some cases we shall be on monthly tenancies, where we shall always be exposed to the danger of receiving notice to quit. Some landlords, in view of the fluctuations of rental values, are not prepared to grant long leases; but, speaking generally, the property owners are fair-minded men, and they are not likely to spring a surprise on one at a month's notice. In two years' time, when our leases expire, we may safely estimate that we shall be required to pay 25 per cent. more rent in Adelaide than we are paying to-day, excluding the additional accommodation required. This morning I took the opportunity of asking one of the biggest contractors in Adelaide his price for the excavation of basements, including delivery to Keswick, about the same distance away as Mile End. He says that it is 12s. a yard under a contract just secured; so that the departmental estimate of 9s. for the removal of the spoil from the new building is a very fair estimate, because the amount to be moved in our case will be considerably greater than is included in the contract I have just referred to. Cartage is the dearest item in Adelaide in this regard. The detailed plans of the new building were prepared in the head office.

13. To Senator Foll.—It is intended to carry out the new building by contract.

14. To Mr. Mathews.—The best Blackwood bricks cost £4 18s. per 1,000. We can buy a brick at £4 14s. per 1,000, delivered in Adelaide. But the price of bricks is not worrying us very much in connexion with this building, because we shall recover sufficient bricks from the General Post Office alterations to sell them again to the new Commonwealth offices. Cement is rather dear, but Mr. Murdoch told you that there was evidence of a reduction in price.

The witness withdrew.

Horace Percy Beaver, Town Clerk, of Adelaide, sworn and examined.

15. To Senator Newland.—By the courtesy of the Committee Mr. Richardson, the City Engineer, has shown the Lord Mayor and myself the plan of the proposed building. From what we have seen, we are satisfied that the ratopayers will be very pleased with it. Certainly it will be a great improvement to the city. The City Engineer reports that every consideration appears to have been given to the various features required in designing a building of this kind. Generally he thinks that it will be in every way satisfactory. The Lord Mayor has asked me to attend and express his appreciation.

(Taken at Adelaide.)

MONDAY, 27th MARCH, 1922.

SECTORIAL COMMITTEE.

Present:

Senator NEWLAND, in the Chair;
Senator FOLL, | Mr. Mathews.
Senator PLAIN, |
George Osborne Watts, Technologist, sworn and examined.

16. To Senator Newland.—I wish to bring under the attention of the Committee a new ceiling material called calcined gypsum. It is highly suitable for premises where even temperatures and fireproof qualities are required. It is described in the latest bulletin of the Bureau of Standards as the finest material for all classes of reinforced concrete buildings where fireproof qualities are essential. The gypsum is washed, dried, and calcined. It is in the last-named process that the hardness and other qualities are secured. After calcining, it can be passed through one or two other processes, which may be regarded as secret, but which, strictly speaking, are not essential. By the mixture of the correct quantity of water, about 20 per cent., the material after calcining is ready for use. In America sand is added, but it is preferable to have just the pure gypsum with water. It makes a harder substance. The mixture of sand is fatal to the hardness of the material. The shape is secured by pouring into moulds. It has been used for reinforcements for ceilings. The Americans use blocks of it. The blocks are formed in the correct size, and simply fitted in, the joints being filled with gypsum mortar. The whole substance then becomes one. Cores can be used in the material in which to place reinforcements. For stress, the Bureau of Standards have established certain facts, which appear to be quite satisfactory from every standpoint. According to the latest bulletin of the Bureau, this material is used extensively in America. Large quantities are used for ceilings, which are reinforced with hemp or flax. In a large room, calcined gypsum could be used cast on expanded steel. The thickness of the ceiling should not exceed 3 inches. The weight of the material would be less than that of concrete of the same size. The thickness of the ceiling would depend on the amount of fireproof qualities required. It could be as low as 3 inch thickness, which is the usual practice for building work, but there fireproof qualities and stability are essential, the practice is to have a ceiling 2½ inches to 3 inches thick. The Germans use this material very largely in hospitals but their process is slightly different. They heat the gypsum to a higher degree of temperature. This material will not be liable to crack if proper reinforcement is used. For ceiling without support, I would reinforce it; but, if girders or wooden joists are used, a certain amount of hemp could be incorporated. However, if wooden joists are used it discounts the fireproof quality. For inside walls these gypsum slabs could be used quite easily. The material is valued at £3 10s. per ton at the factory door. I think it will work out approximately at 2s. 9d. to 4s. per square yard for blocks 3 inches thick. There is an unlimited supply of seed gypsum at Lake Fowler, on York Peninsula. This seed gypsum has not hitherto been used for plaster work in this country. For this purpose, rock gypsum, of which there are enormous deposits throughout the State, has been used very extensively. There are big deposits of this on the Cororong, on the Murray side, and also on the West Coast, the Parunga line and in the Port Augusta district. I have submitted this material to Mr. Lane, of the Soldier Settlement Board, and Professor Chapman has tested one of the blocks. I shall forward the result of his test to the Committee. The Commonwealth Institute of Science informed me that

the matter had already been dealt with in Australia. I shall be pleased to submit the material to Mr. Todd, the Commonwealth Director of Works in Adelaide.

17. To Mr. Mathews.—This material has not been used in South Australia. It can be used for ceilings with proper reinforcing. It will not be too heavy. If weight is an objection, the thickness can be reduced. The ordinary ceiling of plaster of paris reinforced with hemp is about $\frac{3}{4}$ inch thick. I do not propose to use the material for exterior walls. For cavity work it could not be excelled. Lewis Beyoga assures me that it can be made waterproof with resin oil or linseed oil.

18. To Senator Newland.—The application of resin oil or linseed oil would not interfere with its taking colour or paint, but there is no occasion to waterproof the material for interior work. I am not suggesting its use for exterior work. It is practically the same as plaster of paris. The latter is made from the same base, the only difference being that the ordinary gypsum is made from a cruder material. It could be worked up to be used at any thickness, but I would not go lower than $\frac{3}{4}$ inch, which should cost about 1s. 9d. to 2s. per square yard, about the cost of heaver board.

(Taken at Melbourne.)

WEDNESDAY, 20th MARCH, 1922.

Present:

Mr. GREGORY, Chairman;

Senator Foll, | Mr. Mathews,
Senator Plain, | Mr. Parker Moloney.

John Smith Murdoch, Chief Architect, Department of Works and Railways, recalled and further examined.

19. To the Chairman.—The proposal to accommodate in one building all the Commonwealth officials in Adelaide was discussed by the Departments in a general way in 1916, but beyond a series of conversations and the interchange of some correspondence nothing was done. There was some doubt as to the exact accommodation that would be necessary, as it was thought that possibly some of the Departments would be accommodated in the extensions to the General Post Office which were at that time projected. The inquiry by the Public Works Committee, in 1920, regarding those extensions brought the whole subject into focus, and the Committee recommended that the Post Office building should be reserved entirely for postal services, and that on the vacant land adjoining a new building to accommodate the Commonwealth Departments in Adelaide should be erected in stages over a series of years, according to the growth of requirements. Following upon that report, the Department of Home and Territories, which has charge of all transactions concerning Commonwealth properties, advised the Department of Works that it had been informed by the Postal Department that the Post Office authorities had no further use for the vacant land adjoining the General Post Office in Adelaide, and that such land would be available for the accommodation of other Departments if the Government so desired. Thereupon the Department of Works proceeded with the preparation of building plans for submission to this Committee. Only within the last few months has the Postal Department discovered that, in view of a prospective development of the automatic telephone system in Adelaide an area of land measuring at least 80 feet by 150 feet, with means of obtaining light on all sides, will be required in the immediate vicinity of the General Post Office. When the Department of Works and Railways received from the Postal Department a letter to that effect, we suggested a conference of officers representing the different Departments concerned. Accordingly, a conference, representative of the Postal Department, the Home and Terri-

ories Department, and the Works and Railways Department was held, and, as a result, this report was prepared.

ADELAIDE.

Suggested Purchase of Additional Land for Prospective Telephone Exchange Building.

In accordance with instructions from our several Departments, we have considered the matter of a site for future projected telephone exchange building, Adelaide. It is clear that, if the vacant land owned by the Commonwealth adjoining the General Post Office is utilized as a site for the future exchange building, the area of land left would be insufficient upon which to erect a suitable building for local branches of Commonwealth Departments. Further, it is apparent that, as a site for only the future telephone exchange, the vacant land is disproportionately valuable. It has been ascertained that a site equally suitable as to location possibly could be obtained for a future telephone exchange for a sum less valuable than the vacant Commonwealth land. As, however, the project to erect Commonwealth offices in Adelaide on the vacant land has been referred by Parliament to the Public Works Committee, which in course of its investigations will necessarily consider the incidental question of a site for the telephone exchange, it is submitted the matter may be left to the Committee to indicate the proceeding, which will be the best to follow.

J. T. H. GOODWIN, Commonwealth Surveyor-General.

E. WOODROW, Chief Inspector, Postmaster-General's Department.

R. N. PARSONS, Acting Chief Electrical Engineer, Postmaster-General's Department.

J. S. MUNROE, Chief Architect, Department of Works and Railways.

Melbourne, 14th December, 1921.

Subsequently, the then Postmaster-General (Mr. Wise) referred to the Minister for Works and Railways as follows:—

Postmaster-General's Department,

Treasury Gardens,

Melbourne, 14th December, 1921.

Dear Mr. Groom.—In connexion with the recent reference to the Parliamentary Standing Committee on Public Works of the question of provision of office accommodation in Adelaide, South Australia, for various Commonwealth Departments, I deem it advisable to invite your attention to a memorandum, dated 13th September, 1921, from the Secretary of this Department to the Secretary, Department of Works and Railways, in which it is pointed out the necessity for the reservation, for future telephone development, of at least a portion of the land adjacent to the present telephone exchange, and on which land it is proposed to provide office accommodation for Commonwealth Departments.

2. If the project which has been referred to the Committee does not include provision for telephone exchange purposes, I consider that the necessity for this should be brought under the notice of the Committee at once, so that this need may be within the knowledge of the Committee when it is making its investigations.

Yours faithfully,

(Sgd.) J. T. H. WISE.

The Hon. L. E. GROOM, M.P., Minister for Works and Railways, Melbourne.

On receipt of that letter the Secretary to the Department of Works and Railways wrote as follows to the Secretary of this Committee:—

PROPOSED NEW COMMONWEALTH OFFICES.

ADELAIDE.

Memorandum To the Secretary, Parliamentary Standing Committee on Public Works, Melbourne.

With regard to the project for the provision of office accommodation in Adelaide, South Australia, for various Commonwealth Departments, which was referred by Parliament to your Committee for investigation on the 6th December, 1921, I am directed to forward the attached copy of communication sent to the Minister for Works and Railways by the Postmaster-General, referring to the necessity for reserving portion of land adjacent to the present telephone exchange for telephone purposes.

The question of the necessity to reserve a site adjacent to the present building for prospective telephone exchange purposes was discussed recently by a committee of officers of the Departments concerned, and from the report, a copy of which is attached, it would appear that it is considered that the alternative course of obtaining additional land for telephone exchange purposes and leaving the other site for the new Commonwealth offices should be investigated by your Committee as directly bearing on the main project referred to Parliament.

(Sgd.) WALTER D. BIRNIE, Secretary.

That correspondence indicates an aspect of this proposal which was not referred to during the taking of evidence by the Committee in Adelaide. The Postal Department anticipates that, within five years, the erection of an entirely new Telephone Exchange in Adelaide will have to be commenced on a site having a minimum frontage of 80 feet by a depth of 140 feet, with means of obtaining light on four sides. If such a building were erected on the vacant land adjoining the General Post Office, approximately half that area would be utilized for the purposes of the exchange, and the remaining area would be not large enough upon which to erect a building that would meet the future requirements of Commonwealth Departments in Adelaide, unless it were decided to carry it to a greater height. Adelaide citizens are opposed to the erection of anything in the nature of a sky scraper, they would prefer that any additions should be kept to the scale of the existing General Post Office building. The Postal Department says that it cannot now consent to the vacant site being utilized for other Government Departments unless suitable provision is made in the immediate locality of the existing exchange building for a new telephone exchange. As the present Post Office is the centre of the telephone system, and all the wires go there, the Postal Department considers that the erection of the new automatic exchange in the immediate vicinity would be in the interests of the purposes of the exchange, but as has been pointed out to the Committee, the original purchase price of that land and the accumulated loss of interest amount to over £30,000, and the question arises whether or not a site equally suitable for the purposes of an automatic exchange could not be acquired in the immediate vicinity at a very much smaller cost. Confidential inquiries have disclosed that there is a site which appears to be quite suitable. It is just across the lane to the north of the existing Post Office property, and has a frontage of 70 feet by a depth of 150 feet. It is almost an island site, having lanes on three sides. The land is not highly improved, and inquiries by departmental officers suggest that the property might be obtained for about £8,000 or £9,000. An island site is

very desirable for a telephone exchange, and the purchase of this area would leave the vacant land adjoining the Post Office, which, I repeat, has cost the Commonwealth over £30,000, available for the erection of accommodation for Government Departments. Including the present telephone exchange that site measures 126 ft. 5 in. by 211 ft. 6 in. If the new telephone exchange building were placed on that site it would occupy approximately half the area, and if we are to embark upon a project to provide the office accommodation that will be required by Commonwealth Departments in Adelaide some years hence, we ought to proceed on a plan that will give us eventually a very large building. Of course, the building would require to be erected in at least two sections, because, in accordance with a recommendation made by this Committee, portion of the site is now occupied by a temporary building which was erected to accommodate certain branches of the Postal Department in Adelaide which had to be displaced while alterations to the main building were being carried out. If the new automatic telephone exchange occupies half of this vacant land the area remaining will not be sufficient for the requirements of other Departments unless, instead of a six-story building, one considerably higher is built. To such a project there would be a good deal of opposition on the part of the Adelaide people, and the Works Department tries to avoid floating public opinion where possible. The day of the sky scraper, in Australia, is not yet, for, unfortunately the municipal authorities have taken time by the forelock and issued regulations limiting the height to which buildings may be carried. I think that, in both Melbourne and Sydney, the limit is 132 feet. I suggest that the Committee might consider the advisability of retaining for the accommodation of Departments the whole of the vacant site now possessed by the Commonwealth, and adhere to the plan already projected, and provide for the new automatic telephone exchange by purchasing an additional piece of land near by. The island site is suitable in every respect, even though it has not a main street frontage. There would be no undue fire risk in connexion with a building erected thereon. The existing vacant site is worth to the Government more than it would be to anybody else, because so much Government property, in the form of copper wire, is concentrated at that point. There would be little difference in the cost of a telephone exchange building erected on either of those two sites, except that a building having a frontage to a street would require to be a little more elaborate in external design than would a building having a frontage to a lane. Each of the three lanes about the island site is a public right-of-way. If that property is to be obtained at all it would be advisable to purchase it now, because, no doubt, it, like all city properties, is increasing in value, and the owners might proceed at any time to improve it with the result that, if the Government acquired it later, the cost would be increased by the value of the improvements. There need not necessarily be a loss by purchasing the land five years in advance of requirements, because, no doubt, it would return some interest in the meantime. The present telephone exchange is likely to remain in use for a number of years. I should say that possibly ten years hence the present exchange buildings will be available for the accommodation of other Departments. Since the negotiations which I have had to the Committee took place the Postal Department has again written, saying that if it should be decided that the vacant area of land is required for the accommodation of other Departments the Postal Department should be regarded as having a preferential claim to the use for Postal services of any accommodation provided there. That request is reasonable. If a big building is to be erected alongside the General Post Office, and the Postal Department ever requires increased accommodation, it

should be able to get it in that new building. I do not think any Government would deny that claim if it were in the public interest, but the Rostal Department is showing foresight by asking that its preferential right shall be put on record. No consideration has yet been given to the drawing of plans for a new automatic telephone exchange, and, therefore, I cannot give any estimate of the probable cost of the building. The project is still five years ahead, but the present view is that the exchange should be capable of handling 10,000 subscribers, and probably the building would be of three stories, and cover the whole of the island site if that should be acquired. It would be possible to so design the new offices that later they could be converted to the requirements of a new automatic telephone exchange, but my opinion is that an automatic telephone exchange, by reason of its technical peculiarities, and the service it renders to the public, is better placed on an independent site. Moreover, as I have already said, if the exchange were accommodated on the vacant land now owned by the Government it would restrict the future development of the site for the housing of the various Departments. If the automatic telephone exchange were included in the office buildings six stories would not be sufficient to accommodate the various Departments. In America I have seen telephone exchanges in independent buildings, and also as part of huge commercial structures. In New York I visited a couple of exchanges that occupied two floors of sky scrapers, but there is a lack of land in such that the erection of a building of two or three stories for exchange purposes only would be ruinous. The suburban exchanges I saw, however, were in independent buildings, and I think that policy is desirable wherever land can be obtained at a reasonable cost.

20. *To Mr. Mathews.*—Though I have mentioned £20,000 as being approximately the cost to the Government of the vacant land adjoining the General Post Office, its value is probably greater. I think it is not sound policy to erect a telephone exchange on such an expensive block when cheaper land, which would serve the purpose equally well, can be obtained. Moreover, the more valuable block is required in connexion with a large scheme of office accommodation for other Departments. The present exchange will continue to occupy the buildings in which it is now accommodated until they are allocated to other Departments. When this scheme of new offices was first drawn I thought that the area on which the existing exchange stands would be sufficient to meet the requirements of automatic exchanges for all time, but the experts of the Postal Department say that that is not so. Even if that building were extended back to the lane and another story were added it would not be suitable for an automatic telephone exchange, because it is deficient in width.

21. *To Mr. Parker Moloney.*—When the present exchange building is no longer required for telephone purposes, possibly ten years hence, it will be incorporated with the other departmental offices, and as the requirements of the Departments expand will eventually be raised from three stories to six, in conformity with the main building. The present exchange building is only 31 feet 6 in. in width. For even a small automatic exchange the Department prefers a minimum width of 35 feet. The island site, which has been informally inspected by the Committee, exceeds by a few feet each way the dimensions which the Postal Department has mentioned as the minima. I think it would be sound business to pay interest on the island site, even if it costs £10,000, notwithstanding that it will be utilized for telephone purposes only. The site of the Sydney North Exchange cost more than £10,000, I believe, and, as the Sydney South Exchange is to be located in Pitt-street, I may safely predict that that

land also will cost more than £10,000. Each of those sites is for an exchange serving only one district of Sydney.

22. *To Senator Plain.*—I agree that it would be wise to get the opinion of the officers of the Postal Department regarding the possibility of obtaining other sites near the General Post Office for the purposes of a new automatic exchange. They could say, within what distance of the existing exchange the new site would require to be in order to be an economical proposition from a departmental point of view.

(Taken at Melbourne.)

THURSDAY, 30th MARCH, 1922.

Present:

Mr. Grzeozik, Chairman; Mr. Mathews, Senator Foll, Mr. Parker Moloney, Senator Plain, Mr. Parker Moloney, Edgar Becher, Supervising Engineer, Postmaster-General's Department, Melbourne, sworn and examined.

23. *To the Chairman.*—I am aware that a proposal has been before the various Departments for the purpose of erecting large buildings on the land adjoining the post office in Adelaide, and I have recently made recommendations in regard to the possibility of the land being required in the near future for an automatic telephone exchange. Actual investigations in regard to an automatic telephone system for the city of Adelaide have not been made; but we know that we shall need an automatic exchange there in the near future. In about five years such an exchange will be required. A survey of the city of Adelaide and suburbs was completed on 5th March, 1920, and a later survey of the city itself was completed on 1st June, 1920. In my opinion, it is desirable to erect an automatic exchange at or near the present exchange. We require an area measuring 68 feet by 140 feet approximately with natural light on all sides. The decision that the present site was the most suitable was arrived at partly because of the situation of the present exchange and partly because it is the theoretical centre for telephone development in Adelaide. Therefore the nearer we keep to the present site the better it will be. The question of whether a site a quarter of a mile distant would be too far away is governed by costs. When we arrived at the theoretical centre for a telephone exchange we have to see if there is a place of land available. We cannot always get the land we want, and then, in order to see which is the most economical proposition for the Department, we work out the increased cost for the most suitable site that can be obtained. If we had to go a quarter of a mile away from the present centre, the total cost would be more than if we only had to go a few yards, or, say, 100 yards. Recent prices of cable show that it costs anything from 15s. to 25s. per yard. An 800-pair cable would cost approximately 25s. per yard, with conductors 10 lbs. to the mile. A 600-pair cable, with 10-lb. conductors, would cost £1 per yard, and a 400-pair cable approximately 15s. These cables are used for subscribers' lines. We have also to purchase junction cables. These are 300-pair cables, and the cost runs out at about £1 per yard. For the purchase of cable alone, apart from laying it, it would cost us 250 per yard for every mile we moved from the theoretical centre. There would also be the cost of laying the cable and joining it, and of laying the earthenware ducts. The cost, I have stated, would be for a five years' period only. If for fifteen years the cost would be very much greater, and every new subscriber put on would make it more expensive to the Department. If we had satisfactory natural lighting facilities, and the exchange be erected

on the first floor, it could be worked quite satisfactorily. With automatic equipment the adjustments are much finer than with the ordinary manual equipment, and it is essential to have natural lighting on all sides. The Perth Exchange was erected some years ago. That was one of the first big exchanges we took in hand in connexion with automatic equipment, and we have learnt by experience that it is desirable, if at all possible, to obtain natural lighting on all sides. I cannot imagine that in big American cities, for instance, such lighting would be possible, on account of the cost of the land; but it is much better to have those conditions if they can be obtained. It means cheaper running costs when artificial light is not employed, and we also get better work out of the employees, who appreciate the better conditions. Evidence was recently given before the Arbitration Court in connexion with a claim on this very subject. The men took exception to the artificial lighting in the telephone exchange. It would be practicable to place an automatic exchange in the general group of buildings in Adelaide, if space were allowed for it on the ground floor or on the first floor, provided there were not an undue number of stanchions or obstructions on the floor. I do not wish to insist on having a separate building, so long as we have a clear space, with natural lighting. The reason we want to be on the ground floor is because the exchange would be less expensive to construct and maintain.

24. *To Mr. Mathews.*—The only telephone accommodation required in the proposed new Commonwealth offices adjoining the present exchange will be for the housing of the telephone manager and his staff. The site of the present exchange is too narrow for a new exchange. Its depth would not make up for its narrowness. We must have a minimum internal width in the building of 40 feet. It is wholly for economic reasons that we have a theoretical centre: it would cost far more to establish a new exchange a quarter of a mile distant than at the present centre. It is not as though we could start a new telephone centre a quarter of a mile away. We have a telephone exchange at a certain point now, and if we go a quarter of a mile away we will have to extend our present cables and wires to the new centre. The fact that by going a quarter of a mile away we could obtain suitable land at a much lower cost is no aspect, but that does not govern the real issue. If we moved the Central Exchange a quarter of a mile to the south, it would be necessary also to extend the cables coming in from other directions. It would cost us about £30 per yard for every yard we moved from the theoretical centre, and in saying that I have reckoned that in five years we would have about 6,000 subscribers' lines to be moved to the new centre. We must have a new exchange room at Adelaide. The existing building is too small for a manual exchange.

25. *To Mr. Parker Moloney.*—The site of the existing telephone exchange would not be suitable for an automatic exchange, being too narrow. Apart from that, the only solution would be to add to the existing structure; but that would not be an economical procedure. It would be unwise to crowd automatic equipment into such a narrow building.

26. *To the Chairman.*—We do not require such a big block in Adelaide as we have in Sydney, where the development is going to be tremendous.

27. *To Mr. Parker Moloney.*—It is advisable, for economic reasons, to have the exchange on the ground floor. In the first place, we save the cost of cables from one floor to the other. Furthermore, the transmission over cables in a building is not as efficient as it is over cables employed in a street.

28. *To Senator Plain.*—If it were possible to obtain a piece of land, say, a quarter of a mile from the present site, at a lower cost, I would prefer to go to the new land rather than add two or three stories to the existing building. I am certain that ultimately that would be the more economical course. The present building is too congested already and too narrow for a manual exchange.

29. *To Senator Foll.*—Judging by the present growth, a new exchange will be required at Adelaide within five years. The available space for boards is to be filled up as soon as possible, and when it is all utilized the exchange will be unduly crowded. The additional equipment, which is either on order or about to be ordered, will have to be put in straightway. We cannot wait for the opening of the Prospect Exchange. Speaking from an engineering as well as an operating point of view, I say decidedly that when the new equipment is installed at Adelaide, the exchange will be badly congested, both from an equipment and from a staff point of view. At present I am revising specifications for extending the Adelaide exchange, and I have to include in the specifications a provision for opening up new cable routes altogether, owing to the congested condition of the frames room. When we make the proposed extension, the exchange will be unduly overcrowded.

30. *To the Chairman.*—I mean to say that there will be too many frames and too many people in the room for its size.

31. *To Senator Foll.*—I regard the work at Adelaide as being of an urgent nature, particularly at the Central Exchange. We must get some relief there. We propose to do that by opening the Prospect Exchange and extending the present Central Exchange. Those two works will carry Adelaide on for approximately five years, and at the end of that time we must be prepared to have a new exchange in that city or close by. It would be possible to extend the present exchange by utilizing the ladies' retiring room; but that would give an inferior service, and it would be most costly to run it. It would mean an additional supervising officer. The size of the switch-room at present keeps one officer fully occupied in the supervision of the staff. In Sydney the supervision over traffic is most costly, because there are four different rooms for the switching apparatus. It is much better to have the whole of the plant in one room; but if we must separate it we put the racks in one room and the switching apparatus in another. If the plant has to be separated to any greater extent than that the work becomes too costly. In all the capital cities of the Commonwealth the Department is hung up for want of switchboards, external construction material, or telephone switchboard accommodation and instruments. I cannot say off-hand whether Adelaide is least of all in need in those respects. From a survey completed on 1st June, 1920, it finds that the present subscribers represent 5,936 lines connected with the Central Exchange at Adelaide. In five years, according to the present growth, there will be 9,526 subscribers, while the capacity of the Adelaide Exchange is only 8,000 lines. In fifteen years there will be 16,112 subscribers. We cannot carry on unless we get money with which to obtain new plant and material. The telephone system in Adelaide Central Exchange could be carried on in the present building under most uneconomic conditions; but we could not render good service, no matter what equipment was installed.

32. *To the Chairman.*—It is desirable to have one exchange in one room, rather than extend from floor to floor as business grows. The limit is 10,000 lines. If you have more than 10,000 in one exchange it

becomes cumbersome, and you need to establish a new exchange. If you have your new exchange in the same building it would be more economical, because you would have your building site, and your foundations would be there. In such a case all that would be necessary is to extend the building. The City North Exchange has been erected on those lines. The limit for an exchange is usually 10,000 lines, and if the business increases the Department can go up another floor.

33. *To Mr. Mathews.*—If there were 100 per cent. trunking we could not work more than 10,000 subscribers from one exchange, because of what is called the numbering scheme, assuming the system to be five figure. Take the Malvern Exchange for example. The prefix is "U." The numbering scheme and the equipment are so designed under the "Strowger" system that we can allot only 10,000 subscribers to that exchange. If we wanted to allot more we would have to make extensive alterations to the equipment. It is better to keep a 10,000 line exchange in the same building. I do not say that the peak of the trunk demand is reached when at 10,000, but the trunking arrangements would be exceedingly difficult. It is possible to give a trunking arrangement for 20,000 lines; but that would be unduly complicated. We think 10,000 lines is the most desirable number to have.

(Taken at Melbourne.)

MONDAY, 3RD APRIL, 1922.

SECTIONAL COMMITTEE.

Present:

Mr. GREGORY, Chairman;

Senator Plain, | Mr. Parker Moloney.
Mr. Mathews, |

Frederick Golding, Chief Electrical Engineer, Postmaster-General's Department, sworn and examined.

34. *To the Chairman.*—For the new automatic telephone exchange which is estimated to be commenced in Adelaide five years hence, my Department has asked for an area of 66 feet by 140 feet, with natural light from all sides. These are the ideal conditions, allowing the whole of the exchange to be accommodated on one floor. But, of course, the exchange can be extended over more than one floor. That condition exists in Sydney, and must exist in all congested and expensive building areas. The question of cost of land becomes a deciding factor. Unless the land is very cheap, I do not know why it should be proposed to put the automatic exchange on to one floor, although I do not think it should be distributed more than is necessary. The large American exchanges, which extend over many floors of skyscrapers, are manually operated, but there is no reason why an automatic exchange also should not be operated on several floors. The American exchanges use artificial light, as we do in Sydney, and when we have to face an extension of our systems in Sydney, we shall have to use successive floors and employ artificial light. I agree that the present manual exchange building in Adelaide, which is only 32 feet wide, would not be satisfactory for the purposes of an automatic exchange. I shall take an opportunity of studying the plans of the proposed new Government offices on the land adjoining the General Post Office in Adelaide, and, after consulting the technical officers in my Department who have seen the land and all the plans, will give the Committee my opinion regarding the possibility of accommodating the projected new automatic exchange on successive floors in that building.

(Taken at Melbourne.)

TUESDAY, 4TH APRIL, 1922.

Present:

Mr. GREGORY, Chairman;

Senator Newland, | Mr. Mathews.
Senator Plain, | Mr. Parker Moloney.
Mr. Jackson, |

John Thomas Hill Goodwin, Commonwealth-Surveyor-General, Melbourne, sworn and examined.

35. *To the Chairman.*—I am aware of the proposal to erect Commonwealth public offices in Adelaide on the block of land acquired several years ago by the Postal Department, but I have not examined the plan itself. I understand that within about five years it may be necessary to install an automatic exchange in Adelaide, and that the site of the present exchange, which adjoins the block of land referred to in Franklin-street, will not permit of the installation of the automatic. The adjoining block, which measures 90 ft. 5 in. by a depth of 210 feet, and is irregular in shape, was acquired by the Commonwealth on 18th September, 1915, at a cost of £24,000. We have reserved the right of a carriage way, air, and light, over the portion coloured brown on the plan before the Committee, although we hold the fee-simple for that portion of land also, which is 20 feet in width at one end and 30 feet at the other end, over a total length of 130 feet. I could not at the moment state definitely the value of the block referred to; but I should say it is considerably more than at the time it was purchased, because land in all the capital cities of the Commonwealth has increased in value in recent years. I think the price paid for it was reasonable, in view of the fact that portion of the land was occupied in connexion with an adjoining saw-mill business. There is a two-story building upon the area, and the Commonwealth have obtained a slight revenue from it since its acquisition. The present manual telephone exchange is on a transferred property right alongside this area. We have received reports concerning other areas marked "A," "B," "C," and "D," in the plan before the Committee, as to their suitability for the purposes of an automatic telephone exchange, and we have made an estimate of their probable cost to the Commonwealth in the event of their purchase or acquisition in the near future. Two of the areas—blocks "A" and "C"—are occupied in connexion with other business enterprises, and therefore it is likely that a substantial sum would have to be paid by way of compensation for severance before they could pass into possession of the Commonwealth.

36. *To Mr. Mathews.*—It is probable that if the occupation of these areas were deferred for five or six years, the severance costs would be somewhat less, because the present owners would have more time to look about them, in order to purchase other sites to be used in connexion with their businesses. If possession were taken immediately, it is probable that the Commonwealth would have to pay heavily for disturbance.

37. *To the Chairman.*—It is not likely that these blocks or other sites in the vicinity would be actually required for about five years, but it would be advisable to take action as soon as possible. I do not know of any other land in the locality that could be obtained at a more reasonable cost than the estimate for the blocks I have mentioned.

38. *To Mr. Mathews.*—The block adjoining the present telephone exchange has probably cost the Government, up to the present, about £33,000, including purchase money and interest on capital cost.

39. *To Senator Newland.*—Block "C" is occupied as a necessary adjunct to the business carried on in block "D." Both are held under leasehold. Speaking

generally, the buildings on blocks "A," "B," and "C" are of very little value, and I should say these three areas could be acquired at a sum considerably below that paid for the block adjoining the existing telephone exchange, and the area would be quite as suitable for an automatic exchange. I do not know definitely what are the requirements of the postal authorities, but I understand they take the view that the site of the existing exchange is not large enough for an automatic exchange, and that if Commonwealth offices were erected on the block adjoining the exchange building, there would not be sufficient room for both Commonwealth offices and an automatic exchange. I think, however, that if there were no serious objection to the erection of additional stories, sufficient accommodation for all purposes should be provided. Apparently the people of Adelaide object to a tall building right alongside the G.P.O. I think their opinions should be respected.

40. *To Mr. Parker Moloney.*—I understand it is proposed to raise the height of the General Post Office building another story. If the proposed Commonwealth offices were erected on the site adjoining the present telephone exchange, and taken to the same height as the General Post Office building, the whole of the accommodation would be necessary for Commonwealth offices.

41. *To Senator Newland.*—I should say that it would not be a good business proposition to erect an automatic exchange on a valuable block of land, such as that adjoining the present telephone exchange, if other land equally convenient could be obtained at a lower cost. I understand it is necessary that the automatic exchange should be somewhere in the vicinity of the present exchange building, which is the centre of the Adelaide telephone area. The responsible authorities are emphatic on this point. Therefore I recommend that it should be on a site contiguous to the present exchange.