

1856-7.

VICTORIA.

L I G H T H O U S E S .

(In continuation of Papers presented on the 19th December, 1856.)

FURTHER CORRESPONDENCE

RELATIVE TO

LIGHTHOUSES ON THE AUSTRALIAN COAST.

PRESENTED TO BOTH HOUSES OF PARLIAMENT BY HIS EXCELLENCY'S COMMAND.

By Authority :

JOHN FERRES, GOVERNMENT PRINTER, MELBOURNE.

No. 71.—a.

SCHEDULE.

No. in Series.	Date and Number.	From and to whom.	Subject.
	1857.	NEW SOUTH WALES.	
1	28—9th March	Colonial Secretary, New South Wales, to Chief Secretary, Victoria	States that the arrangements necessary to carry out recommendations of Lighthouse Commission are under consideration, and requests estimate for lighthouse at Wilson's Promontory.
2	G.B., 568—7th April	Chief Secretary, Victoria, to Colonial Secretary, New South Wales	In reply to the above.
3	68—30th May	Colonial Secretary, New South Wales, to Chief Secretary, Victoria	Alteration in Gabo Island light, and in that proposed for Cape George.
4	G.B., 1573—31st July	Chief Secretary, Victoria, to Colonial Secretary, New South Wales	In reply to the above.
5	3rd August	Chief Secretary, Victoria, to Colonial Secretary, New South Wales	Further reply to No. 1.
	1856.	SOUTH AUSTRALIA.	
6	2155—27th December	Chief Secretary, South Australia, to Chief Secretary, Victoria	States that South Australia will only undertake the erection and maintenance of lighthouse within her own territory.
	1857.		
7	G.B., 164—27th January	Chief Secretary, Victoria, to Chief Secretary, South Australia	In reply to the above.
		TASMANIA.	
8	2613—3rd January	Colonial Secretary, Tasmania, to Chief Secretary, Victoria	Notifies concurrence in recommendations of Lighthouse Commission, and states that estimate will be prepared for King's Island Lighthouse.

CORRESPONDENCE.

No. 1.

No. 57 | 28.
57 | 906.

Colonial Secretary's Office,
Sydney, New South Wales, 9th March, 1857.

SIR,

With reference to your letter of the 5th of December last, on the subject of the arrangements necessary to carry into effect the Report of the Commissioners appointed on the part of New South Wales, Victoria, South Australia, and Tasmania, relating to the erection and maintenance of lighthouses on the Australian coast, I have the honor to inform you that the several matters adverted to in your communication are under the consideration of this Government; and, at the same, to invite your attention to the proposal made in your communication to forward for the concurrence of this Government an estimate for the lighthouse to be built under the supervision of the Victoria Government at Wilson's Promontory.

I have the honor to be,

Sir,

Your most obedient servant,

The Honorable the Chief Secretary,
Victoria.

HY. WATSON PARKER.

No. 2.

G.B. 568.

Chief Secretary's Office,
Melbourne, 7th April, 1857.

SIR,

I have the honor to acknowledge the receipt of your letter of 9th March, notifying that the several matters adverted to in my communication relative to the erection and management of lighthouses on the Australian coast were under the consideration of the Government of New South Wales.

With reference to the latter portion of your communication relating to the estimate of the cost of erection of the lighthouse on Wilson's Promontory which it is the intention of this Government to submit for the approval of His Excellency Sir William Denison, I am directed by Sir Henry Barkly to inform you that a Board has been appointed and had received instructions to proceed on Tuesday last, the 31st March, in H.M.S. *Victoria* to Wilson's Promontory and Cape Schanck to determine the exact sites on which the lighthouses shall be erected at those places respectively; but that in consequence of the late serious outbreaks of the convicts in Hobson's Bay it has been deemed advisable not to despatch the *Victoria* on the abovementioned service at present; but it is confidently hoped that the delay thus occasioned will not extend beyond the end of the present month.

I am further instructed to state that so soon as this necessary preliminary step has been taken the works will be pushed forward with the greatest possible despatch.

I have, &c.,

(Signed) J. MOORE,
Under Secretary.

The Honorable the Colonial Secretary,
Sydney, New South Wales.

No. 3.

No. 57 | 68.

Colonial Secretary's Office,
Sydney, 30th May, 1857.

SIR,

Adverting to the report of the Commissioners appointed by the Governments of New South Wales, Victoria, South Australia, and Tasmania, to confer upon the subject of lighthouses in the several Australian colonies, I have the honor to transmit to you a copy of a paper recently submitted by Mr. H. H. Browne, who was a member of the Commission, as the representative of this Government, in which, with reference to those portions of the report which relate to the lighthouse on Gabo Island, and one proposed to be erected on Cape George, he suggests that an iron tower of fifty feet high should be obtained from England, fitted with a first class revolving light, shewing alternately a red and white flash, to be erected on the extreme portion of Gabo Island, on the rocky point which juts out to the south-east; and that as soon as this lighthouse is erected, the lantern now in use at this place, shewing a fixed light, should be removed to George's Head, the tower for it being in the meantime erected for its reception.

2. The portions of the report of the Commissioners, of which I enclose a copy, relating to the lighthouse at Gabo Island, and to one proposed at Cape George, are paragraphs 3 and 9; and the paper of Captain Browne fully explains the grounds on which he has recommended these alterations in

the arrangements suggested by the Commissioners. It will be observed that besides other advantages which these changes appear to present, the placing a revolving light at Gabo Island, and a fixed light at Cape George, would tend to improve the arrangement of the several lights on this coast, which, from Cape Otway to Moreton Island, would then be alternately revolving and fixed.

3. As, however, the propositions now made by Captain Browne differ from the arrangements recommended by the Board of which he was a member, it appears necessary to submit them, in the first instance, for the consideration of the several colonies interested, and I therefore request that you will favor me as early as convenient with the views of your Government on the subject.

I have the honor to be,

Sir,

Your most obedient servant,

HY. WATSON PARKER.

The Honorable the Chief Secretary of Victoria.

Sydney, 19th April, 1857.

That portion of the suggestions of the Lighthouse Commissioners which it is proposed to allot to the control of the Government of New South Wales, is the removal of the lighthouse on Gabo Island, and the erection of a revolving light on Cape George.

It is not necessary here to discuss the great importance of the Gabo Island light, as it must be obvious to all acquainted with the navigation of this coast that it ought always to be maintained in the highest state of efficiency.

It may, therefore, in the first instance be as well to allude to the position of the present lighthouse, and the nature of the materials of which it is built.

The present lighthouse is placed near the centre of the island, it being merely a lantern erected on a wooden fencing, which not only renders it liable to accident by fire, but also exposes the reflectors to the action of the land, which is ascertained to be most detrimental to their brilliancy.

It is also placed at about a quarter of a mile from the residence of the keepers, and from the stores in which the oil is kept.

These defects, it must be acknowledged, are of serious importance, as affecting the permanent character of the light; and it therefore appears to me that it would be advisable to commence the improvements here instead of by the erection of the Cape George lighthouse, as is, I understand, at present contemplated.

On the score of economy I think it would also be beneficial, as it would enable the Government to remove the lantern now in use at Gabo to George's Head; and it would at the same time enable the distinctive features of the several lights to be so arranged as to prevent any possibility of mistakes being made by a stranger approaching the coast.

On reference to the Commissioners' report it will be seen that it is recommended that the Cape George lighthouse should be an intermittent light of intervals of thirty seconds, thereby making the only distinctive feature between that light and the one on the south head of Port Jackson, a difference of time between the flashes.

This, I think, will be considered by nautical men to be hardly a sufficient distinction for lights so nearly placed, and on headlands so much alike, that it appears to me that if, in carrying out the recommendations of the Commissioners, a satisfactory arrangement can be made, and greater distinctive features obtained, that the opportunity should not be lost sight of in doing so as early as possible.

These are, therefore, my reasons for wishing that the Gabo Island light should be first removed; and as one-half of the expense of its removal will fall on the Colony of Victoria, I feel sure that the expense will be readily met by them, knowing as they do the advantages that will be derived from having a light of a permanent character erected on so important a turning point as this.

I would therefore suggest that an iron tower of fifty feet high be sent for from England, fitted with a *first class* revolving light, shewing alternately a red and white flash; and that it be erected on the extreme portion of the island on the rocky point which juts out to the S.E.

As soon as this lighthouse is erected, the lantern now in use might be removed to George's Head, and in the meantime the tower could be got ready on that head for its reception.

In placing a fixed instead of a revolving light on Cape George some money will be saved, as the tower need only be of sufficient height to render it a conspicuous object during the day, whereas the revolving one will require a height of at least forty feet to work the revolving machinery. If this course is adopted, the arrangement of the several lights on the coast will be as well defined as can possibly be wished for, as they will stand thus:—

Cape Otway—revolving.
Melbourne Heads—fixed.
Cape Schanck—revolving.
Wilson's Promontory—fixed.
Gabo Island—revolving.
Cape George—fixed.
Sydney Heads—revolving.
Newcastle—fixed.
Moreton Island—revolving.

The only light which could possibly be said to interfere with the revolving light on Gabo Island would be that on Kent's Group; but as the distance is so considerable, the one being in 39 deg. 30 min. S. and 146 deg. 24 min. 30 sec. E., and the other in 37 deg. 31 min. S. and 149 deg. 59 min. E., and the elevation of Kent's Group being very great, and also the distinctive features of Gabo Island being different from any light on the coast, with the exception of Cape Northumberland in South Australia; that I do not fear that any difficulty could possibly arise detrimental to this arrangement.

In reference to the position of Cape George lighthouse, it appears to me that much must depend on the features of the country in which it is to be placed; but as it is intended more as a guide to vessels coming from the south, to prevent them from falling into the deep bight which extends to the south of the cape, it should be placed on the easternmost part of the headland, so as not to be in any way shut in by any high land to the south of it.

I am not at all aware of what would be the cost of the iron tower for Gabo Island, but I believe that Captain Ward, who superintended the erection of an iron lighthouse in the Bermudas, could give some approximation of the expense. I conceive, however, that the sum voted will be ample for all arrangements that can be carried out this year; and as the King's Island light is the only one likely to be at all expensive, I think the £10,000, with the addition of the first class lantern now in store, which would be gladly taken by the Government of Victoria for Wilson's Promontory, and which will not be required here, will be found sufficient to meet all the requirements of the Commission.

(Signed) H. H. BROWNE.

No. 4.

G.B. 1573.

Chief Secretary's Office,
Melbourne, 31st July, 1857.

SIR,

With reference to your despatch of 30th May last, enclosing copy of a paper furnished by Mr. H. H. Browne, relating to that portion of the report of the Commissioners on Lighthouses which regards the removal of the lighthouse on Gabo Island and the erection of a revolving light on Cape George, I have the honor, by desire of the Chief Secretary, to bring under your notice the enclosed copy of a minute of Captain J. H. Kay, R.N., the Commissioner for Victoria, containing his opinion on the proposals of Mr. Browne, and I am to state that this Government concurs in the views of Captain Kay, in favor of continuing a *fixed* light on Gabo Island.

As regards the material of the proposed building, I am to intimate that if the Government of New South Wales are satisfied of the suitability of an *iron* tower, and of its not being more expensive than one of stone, the Government of Victoria will offer no objection to the adoption of the former.

With reference to Mr. Browne's suggestion, as regards the lantern in store at Sydney being taken by this Government for the proposed lighthouse on Wilson's Promontory, I am instructed to observe that, as it is of the greatest importance that the lights about to be erected should be of the very best description, the lantern in question could not be so appropriated unless it were found to be of really first class construction, and with all the latest improvements.

Complaints having been made to this Government that the light on Gabo Island has occasionally not been properly attended to, I am to request you will have the goodness to state whether any such complaints have reached the Government of New South Wales, and if so, whether steps have been taken to remove the cause.

(Signed) J. MOORE,
Under Secretary.

The Honorable the Colonial Secretary,
New South Wales.

Enclosure to No. 4.

The lighthouse on Gabo Island, Cape Howe, has been erected for some years, and is marked on all charts used throughout the world as a *fixed light*. To change the distinctive character of a well-known and well-established light on such an important headland as Cape Howe would, in my opinion, be attended with great danger; and, with all the precautions which could be taken to give publicity to the proposed change (if carried out), I fear many masters of vessels would still be found using the charts in their possession which now describe the light as *fixed*.

I think the distinctive character of a great highway light, when once established and known to mariners, *should never be changed*.

I am also of opinion that a revolving light on Gabo Island and another revolving light on Kent's Group would not be entirely unattended with danger to ships entering Bass's Straits from the eastward under charge of an inefficient or careless master, and possibly much out in their reckoning, after a long voyage. I allude, of course, to the oversea trade from the Islands of the Pacific or from the west coast of South America.

The distance between Kent's Group and Cape Howe is about 165 miles, and it is quite possible that a ship, very much out in her reckoning (from not having been able to obtain observations), and running in an easterly gale for the entrance of the Straits, might get into difficulty by mistaking one revolving light for the other.

The safest precaution which could be taken, in my opinion, to make a distinction between the proposed lighthouse on Cape George and that already erected on the South Head of Port Jackson, would be, to place *two* lights on the former, either horizontal or vertical, or to increase the intervals between the revolutions of a single light to such a lengthened period as to make it impossible, with ordinary precaution, to mistake between Cape George and South Head. *The first proposal would remove all possible doubt*, and the first expense is the least.

(Signed) J. H. KAY, R.N.,
Commissioner for Victoria.

Melbourne, 12th June, 1857.

No. 5.

Chief Secretary's Office,
Melbourne, 3rd August, 1857.

SIR,

Adverting to a letter from this office, dated the 7th April, relating to the Board appointed by Sir Henry Barkly to determine the sites for the erection of the proposed lighthouses at Cape Schanck and Wilson's Promontory, I have now, by desire of the Chief Secretary, the honor to bring under your notice the enclosed copy of the report of the Board on the subject, and the other papers relating thereto, which are specified on the margin.

No. 71.—6.

Report of the
Board.
Report Geological
Surveyor.
Report of Mr.
Balmain, Public
Wks. Dept.

Chart of Cape
Schanck.

It will be seen from the report that it is deemed advisable to erect the lighthouse at Cape Schanck on the high table land which lies north by west of the extreme point of the cape, a spot which it appears Captain Stokes had marked on his chart as a suitable place for a lighthouse. The cost of the erection of this tower, with the necessary buildings to complete the station, is estimated, as appears by enclosure B, at fifteen thousand five hundred pounds. A sum of £9,500 has been placed on the Estimates as the amount which this Government will be in a position to expend during the present year, and it is intended that the work shall be undertaken without delay.

As regards Wilson's Promontory, it will be perceived that the site selected for the lighthouse is the same as appeared to the Commissioners, who visited the place in 1856 the best that could be chosen. The cost of erecting a tower on this spot, together with all the requisite works connected with it, is estimated at nineteen thousand five hundred pounds.

To meet this expenditure a sum of £7,000 has been placed on the Estimates, and as soon as the funds have been granted by the Legislature it is proposed to commence this work also without delay.

I have, &c.,

(Signed) J. MOORE,
Under Secretary.

The Honorable the Colonial Secretary,
New South Wales.

Melbourne, 22nd May, 1857.

SIR,

I have to inform you that in compliance with the instructions contained in your letter of the 26th of March last, the Lighthouse Board left Hobson's Bay in the *Victoria* steam sloop on the 6th instant, and having completed the examination of Cape Schanck and Wilson's Promontory, returned to port on the 13th.

I have now the honor to make the following report:—

I. CAPE SCHANCK.

The extreme point of the cape is formed of two sandy hummocks resting on a basaltic base; and in a nautical point of view the Board were of opinion that the outermost of these hummocks was the correct position for the lighthouse, provided that a tower could be erected there of a sufficient altitude for the light to be seen by vessels approaching Port Phillip Heads from the westward.

They accordingly selected a site which afforded the greatest area on the hummock, and which, by the observations of the Marine Surveyor, was ascertained to be 155 feet above the level of the sea, and 496 yards distant inshore of the rock which lies awash off the extreme point of the cape.

An examination of the ground however soon proved that it would be extremely difficult to obtain a secure foundation to support a tower of the requisite height; and I refer you to the accompanying report of the Geological Surveyor for an accurate description of its features, as well as to the report of Mr. Balmain, of the Public Works Department, upon the estimated expense of erecting a tower of 100 feet high, at that spot.

After great consideration of the unexpected difficulties which would have to be overcome in placing the lighthouse on this outer hummock, the Board selected another site on the high table land which lies N. by W. of the extreme point of the cape, and distant 1170 yards from the outlying rock before mentioned.

On Captain Stokes's chart of Western Port, the same spot is marked as the proposed site for a lighthouse, and I imagine it is near to the position referred to by Mr. La Trobe in his letter to the Colonial Secretary of New South Wales, dated the 28th June, 1854, to which you have drawn my attention.

The Board therefore recommend that the Cape Schanck lighthouse should be erected on this tableland, close to a tree which they marked.

By the observations of the Marine Surveyor it stands 263 feet above the level of the sea, and the position is commanding.

To vessels approaching Port Phillip Heads from any direction it will be invaluable, and it will also be of great service to vessels seeking shelter in, or bound to, Western Port. Placed on a tower 50 feet high, this light will be visible from a ship's deck under ordinary circumstances at a distance of 23 miles, and will embrace an arc of the sea horizon of 213°, or from Point Nepean to Cape Wollomai.

The Board have also ascertained to their satisfaction that in moderate weather good landing can be effected on a shingle beach in a small cove on the eastern side of the hummocks which form the cape. Although at the period of the Board's visit it had been blowing fresh from the southward for some days, no difficulty would then have been experienced in landing with safety.

A plentiful supply of good water can be obtained within half a mile, and lime is abundant; but there is not any timber fit for building purposes.

II. WILSON'S PROMONTORY.

The Board decided that the site selected in 1856 by the Lighthouse Commissioners was the best position on the promontory for a lighthouse. It is at the extreme point, and is marked by a flag-staff secured in a cairn of stones.

On the former visit in 1856, this spot was ascertained by the Marine Surveyor to be 276 feet above the level of the sea, and on this occasion I have been informed by that officer that his observations made it 274 feet in height. I again beg to refer you to the reports of the Geological Surveyor, and Mr. Balmain, for information upon the quality of the building materials to be found on the spot. Water can be obtained in sufficient quantity for the daily use of the men to be employed at the lighthouse, by constructing a small reservoir, and good landing is to be effected on either side of the promontory, according to the direction of the wind, except in hard southerly gales, when it would not be practicable.

3. I have further to inform you that advantage was taken of a remarkably smooth sea, and low water, to land on the so-called "ten foot rocks," which lie four miles south of the promontory, and the information thus obtained may be useful at some future time.

They consist of three separate and distinct islets of granite, of which the largest or westernmost was ascertained to be 165 feet long, with a breadth of 50 feet at the broadest part near its centre. This islet is 30 feet high at low water, and on its southernmost extremity there is a granite boulder which was estimated to be about 20 additional feet in height, and 50 feet above low water-mark, and which when the sea is breaking heavily over the rocks, is probably the only part of them which is then visible. The other two islets are of minor dimensions.

The rise and fall by the marks on the rocks appeared to be about seven feet; and as the tide rose, the sea again began to break over the smaller rocks, although it was nearly calm.

Cleft Island was also carefully examined, and found to be quite inaccessible for landing, as its sides are perpendicular.

I have the honor to be,

Sir,

Your obedient servant,

J. H. KAY, Commander, R.N.,
Chairman.

The Honorable the Commissioner of Trade and Customs,
&c., &c., &c.

Enclosure A.

Geological Survey Office, Department of Public Lands,
19th May, 1857.

SIR,

With this I have the honor to forward you, for the information of the Board, my report on the geological structure of Cape Schanck and Wilson's Promontory, having reference to the construction of lighthouses on those headlands.

I have the honor to be,

Sir,

Your most obedient servant,

ALFRED R. C. SELWYN,
Geological Surveyor.

Captain Kay, R.N.,
Chairman of the Lighthouse Commission.

LIGHTHOUSES ON CAPE SCHANCK AND WILSON'S PROMONTORY.

GEOLOGICAL REPORT.

CAPE SCHANCK.—BUILDING MATERIALS.

Stone.—Two descriptions of building stone can be procured in the vicinity of the proposed lighthouse at Cape Schanck; the one a rather soft earthy calcareous freestone, and the other a very hard and tough dark colored trap or basalt.

The first could be obtained in sufficient quantity within a short distance of either site, and would, I think, be found suitable for the erection of the necessary storehouses and quarters, but could not be recommended for any part of the light tower.

The second, though extremely tough and durable, would, on account of its very uneven and splintery fracture, not admit of being dressed, and is therefore only suitable for rubble work. It would have to be quarried at the base of the cliff, and the cost of raising it to the site selected by the Board on the western hummock, 262 feet, would probably be equal to that of transporting a far more suitable material overland from the east shore of Port Phillip Bay.

Granite of the finest quality could be quarried and shipped at Mount Martha, landed on the beach south-west of Arthur's Seat, and conveyed thence overland to the site selected by the Board on the western hummock. The distance being about ten miles and the road good.

Clay.—Good clay for making bricks could be procured within five miles of the cape, on the east side of Barker's Creek.

Sand and Lime.—These can be procured in any quantity within a short distance of either site.

Water.—There is a permanent spring of good water within one mile of the western hummock.

The relative position of the rocks and the general geological structure of the cape are shewn in the accompanying sections, drawn on a scale, vertical and horizontal, of one-fourth of an inch to twenty feet. No. 1 is on an east and west line through the site on the southern or outer hummock; No. 2 on a north and south line, through the site selected by the Board on the western hummock.

In order to obtain a sufficient area and a secure foundation on which to erect a light tower on the southern or outer hummock, the whole of the upper portion of the hill, consisting of strata of loose sand and friable sand rock, would require to be removed, and the limestone band (a section No. 1) laid bare, and this would then require to be secured on either side, east and west, from the undermining action of the wind by piles and embankments, before it could be considered a permanently safe foundation for a tower 100 feet high.

At the site on the western hummock the geological structure (section No. 2) is precisely similar, but as the required height of tower would here be much less, and as the sandy strata on which it will have to be built are exposed to the action of the weather only on one side, instead of four, as at the outer hummock, no difficulty whatever would be found in constructing a perfectly secure foundation on this site at a cost comparatively trifling.

WILSON'S PROMONTORY.—BUILDING MATERIALS.

Stone.—Wilson's promontory and the adjacent rocks and islands are all granite, of a very coarse grained and friable description, and consequently very inferior as a building material. It can be obtained in blocks of any size, and might be used for the erection of the storehouses and quarters, if cemented on the outside to protect it from the action of the weather. The tower, if built of this stone, would require to be faced entirely with some more durable material, either bluestone from Melbourne or granite from Gabo Island.

Clay, Sand and Lime.—None of these can be procured in the neighbourhood of the promontory.

Water.—A sufficient and probably permanent supply might be collected in tanks from a small spring, a short distance below the site fixed on by the Board for the proposed light.

18th May, 1857.

ALFRED R. C. SELWYN,
Geological Surveyor.

Enclosure B.

Public Works Office,
Melbourne, 18th May, 1857.

SIR,

In connection with our recent examination of the sites proposed for lighthouses at Cape Schanck and Wilson's Promontory, I now give you for the information of the Board my report and estimate for the erection of the necessary buildings on the several sites.

CAPE SCHANCK.—*First Site*, £33,500.

As regards the site on the outer hummock, it will be necessary, in order to obtain a secure foundation for the tower and other buildings, to remove the bed of sand above the limestone vein, and to secure that vein and the bed of sand below it by driving piles along both sides of the ridge of the hummock, enclosing an area of about 300 feet by 100 feet, and to fill in the space inside the piles with stone or other solid material, the outside of the piles also to be backed up in a similar manner. This done I have no doubt that a foundation will be obtained which can be trusted to carry a tower 100 feet high, and the required storehouses, quarters, &c.

I should propose to erect the tower of the best description of rubble work, using the stone from the basalt stratum below the site, which, though extremely tough and difficult to work would, with good mortar, be capable of being formed into substantial and durable buildings.

I would case the outer face of the tower with ashlar, formed of the Melbourne blue stone, the stairs, cornice, and dressings also of the last-named material.

The storehouses, quarters, and other buildings would have to be built along the ridge and immediately behind the tower. These it would be sufficient to build of good rubble work, without ashlar as proposed for the tower.

Limestone, sand, and fresh water being abundant within a short distance of the site, there will be no difficulty in making excellent mortar and plaster.

It will be necessary for the conveyance of materials, &c., to construct tramways from the top of the cliff to the site on the hummock, also from the base of the hummock to its summit, these tramways would be made permanent so as to be left after the completion of the works as a means of transit for stores, &c.

The cost of the erection of a tower of the height named, with lantern complete, and the necessary buildings for stores, quarters, &c., and including the formation of the site and construction of the tramways, I estimate at thirty-three thousand five hundred pounds (£33,500).

CAPE SCHANCK.—*Second Site*, £15,500.

At the site on the cliff north-west of the hummock, I have no doubt of also being able to obtain a good foundation, though not without considerable expense, at a distance of say 400 feet from the edge of the cliff, and near to the tree marked by the Board.

The foundations for the tower would have to be taken down to a considerable depth to ensure their security from the effects of the weather upon the edge of the cliff.

In constructing the tower on this site I would build it of similar work to the first-named one, but to convey all necessary stone from Melbourne (or its vicinity), as the expense of quarrying, working, freight and cartage would be less than the quarrying and working of the tough stone at the point, added to the cost of raising it up the cliffs. The stone from Melbourne could be landed on the beach near Arthur's Seat, and carted from thence to the building site.

The stores, quarters, &c., could be built of rubble stone work or bricks, the materials procured in the locality.

The facilities for procuring limestone, sand, and fresh water would be same as for first-named site.

The cost of the erection of tower 60 feet high, with lantern and all buildings necessary to complete the station, I estimate at fifteen thousand five hundred pounds (£15,500).

WILSON'S PROMONTORY.—£19,500.

At this place the primary object, a secure foundation, can at once be obtained on the granite rocks near to the spot marked by the Board. The granite can be used for rubble work if not exposed to the effects of the weather, but with this exception all materials required for the works will have to be landed at the promontory from boats, as there appears to be no present possibility of making a useful track through the forests on the ranges. There is no stone fit for the exterior of the tower, no lime, and no sand.

The first proceeding in commencing works here should be to lay down good and substantial tramways on both sides of the neck of the Promontory, from the water's level upwards to the top of the neck. Here I would put up permanent storehouses (to be used at first for the material, &c., required during the progress of the works, and hereafter to receive the supplies necessary for the lighthouse and its attendants), from thence a tramway (also permanent) to the spot fixed for the tower.

The quarters could be placed near to the tower.

The storehouses, quarters, &c., could be built of the local granite, cemented outside.
I would build the tower of work similar to that described for the other sites, using the granite of the locality for the rubble work, and probably the Melbourne blue stone for outside ashlaring.

There being no lime obtainable I would use Roman cement, conveyed to the spot in the original packages (barrels); sand will also have to be brought with other materials.

I have no doubt that the supply of water will be ample for building purposes, as well as for the use of the workmen.

On this site I estimate the total cost of tower, 60 feet high, with lantern, storehouses, quarters, &c., complete, tramways, cranes at landing places, formation of landing places, at nineteen thousand five hundred pounds (£19,500).

I have the honor to be,

Sir,

Your most obedient servant,

JAS. BALMAIN.

To Captain Kay, R.N., &c., &c., &c.,
Chairman of Lighthouse Survey Board.

No. 6.

SOUTH AUSTRALIA.

Chief Secretary's Office,
Adelaide, 27th December, 1856.

2155 | 56.

SIR,

I have the honor to acknowledge the receipt of your letter of the 5th instant, enclosing copy of a communication relative to the report of the Lighthouse Commissioners, and, in reply, I beg to enclose copy of a Minute of the Honorable the Treasurer of this Province on the subject, and to intimate to you, for the information of His Excellency Major-General Macarthur, that this Government shape their policy in accordance with that Minute, and consequently are not prepared to take any steps (in furtherance of a combined system) beyond the erection and maintenance of their own lights, including the new ones now in course of erection on Cape Northumberland and Cape Borda, on Kangaroo Island.

I have the honor to be,

Sir,

Your obedient servant,

B. T. FINNISS,

Chief Secretary.

To the Honorable the Chief Secretary, Victoria.

*Copy of Treasurer's Minute on Letter from Chief Secretary, Victoria, dated 5th December, 1856.
(C.S.O. 3728 | 56.)*

I do not think it necessary or advisable to take any further steps in the matter. South Australia is prepared to erect and maintain the lights on her own coast. The Commissioners have expressed their opinion that, in so doing, she contributes all that can in justice be expected towards the lighting of the Australian coast.

I can see no other result, except complication of matters at present well arranged, to arise out of a combined system of light dues and lighthouse expenditure amongst the Australian Colonies, and would advise that this Colony should refuse to be included in any such system.

18th December, 1856.

(Signed)

ROBT. TORRENS.

No. 7.

G.B. 164.

Chief Secretary's Office,
Melbourne, 27th January, 1857.

SIR,

I have the honor, by desire of the Chief Secretary, to acknowledge the receipt of your letter of the 27th ultimo in reply to mine of the 5th idem, and forwarding a copy of a Minute by the Honorable the Treasurer of South Australia stating the policy of the Government relative to the recommendations contained in the report of the Lighthouse Commissioners.

2. In reply I am to inform you that the Government of Victoria are glad to find that the views of the Government of South Australia are in this matter identical with their own.

I have, &c.,

(Signed)

J. MOORE,

Under Secretary.

The Honorable the Chief Secretary,
South Australia.

No. 71.—c.

No. 8.

TASMANIA.

Y.2613.

Colonial Secretary's Office,
3rd January, 1857.

Sir,

I have the honor to acknowledge the receipt of your letter of the 5th ultimo, transmitting copy of a communication which you have addressed to the Government of New South Wales relative to the report of the Lighthouse Commissioners who recently met in Melbourne, and, in reply, I have to acquaint you that the Governor in Council has approved of the recommendations contained in the report in so far as they concern Tasmania, and will be glad to receive the Bill referred to in your enclosure, to give effect to those recommendations, whenever it is drafted.

I have also to add that instructions will be given for the preparation of an estimate for the erection of a lighthouse on King's Island.

I have the honor to be,

Sir,

Your most obedient Servant,

W. CHAMP.

The Honorable the Chief Secretary, Melbourne.