STEAM COMMUNICATION WITH AUSTRALIA.

A LETTER

ADDRESSED TO

The Right Hon. The Lord Mayor of London;

WITH A MAP.

BY

JAMES LAMING,

Manager of the General Screw Steam Shipping Company.

PRICE SIXPENCE.

LONDON:

BURRUP & SON, ROYAL EXCHANGE, AND STANFORD, 6, CHARING CROSS.

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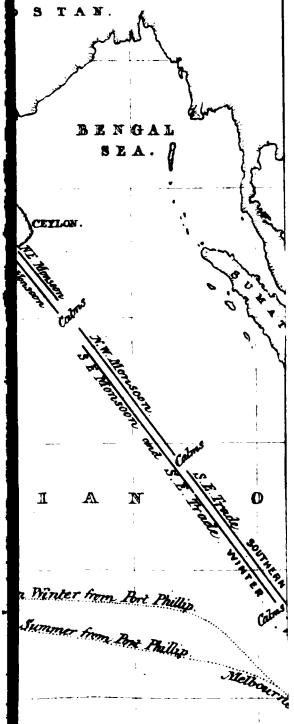

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Steam Communication with Australia.

TO THE RIGHT HONORABLE

THE LORD MAYOR.

My Lord,

At the large and influential Public Meeting, on the subject of Steam Postal Communication, over which you recently presided with so much practical discernment, the unanimous concurrence of those assembled on that occasion went with the advice of your Lordship in the substitution of "the most eligible route," for that of "the shortest" in the preliminary resolutions that were passed, and in the prayer of the petition that followed; I venture to hope that the same unanimity of opinion will confirm the propriety of my laying before the public, through the medium of a letter thus respectfully addressed to your Lordship, a brief sketch of the efforts hitherto made to establish Steam Postal Communication with our Australian Colonies, and of the plan by which I propose to apply the lessons of the past to the advantage of the future: and under that impression I will proceed with the performance of the task I have assigned to myself, without further preface.

The Steam Postal Service with our Australian Colonies was first publicly agitated at various meetings held in the metropolis during the years 1846, 47, and 48; and in consequence of these proceedings the Board of Admiralty offered to competition the conveyance of Mails from Singapore to Sydney, and tenders were thereupon made by the Peninsular and Oriental Company (whose previously existing contract included Singapore, *en route* from the Red Sea to China,) and by a projected association called the Indian and Australian Mail

Steam Packet Company, which having proposed to perform the service for less money than the former, obtained the Contract. Yet, as the Company whose tender was accepted had never been in a condition to carry it out, the Contract was necessarily abandoned, and the Steam Postal Service with Australia remained in abeyance until it was referred to Lord Jocelyn's Committee by the House of Commons, in 1851.

By Lord Jocelyn's Committee the respective merits of three projected routes were deliberately and patiently examined; namely, the Singapore, the Panama, and the direct route *viâ* the Cape of Good Hope; and, upon the evidence adduced, that Committee reported in favor of the last mentioned, as best adapted to the general interests of the three Colonies of Adelaide, Melbourne, and New South Wales; but, at the same time, some members of the Committee recommended that another route should be thrown open for alternate bi-monthly services, *viâ* Singapore, as well as the Cape of Good Hope, and the Government concurring with that suggestion, tenders were in consequence made for the direct route, by the General Screw Steam Shipping Company, (already performing the Mail Service to the Cape of Good Hope,) and by the Royal Australian Mail Company, then in course of formation.

To the Peninsular and Oriental Company the Singapore contract was appropriately awarded; and to parties subsequently constituting the Royal Australian Company the other contract by the direct route was awarded, unquestionably upon the expectation that such Contractors would be able to fulfil the agreed conditions, at about one-half the remuneration which their practically experienced competitors had more prudently assumed to be necessary. But this particular contract for the direct route turned out to be an utter failure, from the ships not being calculated for the service. The consequence was that great and undeserved discredit was brought upon the route, *via*. Cape of Good Hope; and having caused serious inconvenience to the Colonies, the British public, and the Government, the contract was finally terminated after an unsuccessful trial of two years.

Upon the cancelling of that unsuccessful contract with the

Royal Australian Mail Company, the Post-office authorities entered into an engagement with the General Screw Steam Shipping Company to take up the line for which the latter had previously tendered. This Contract, however, was not very long in existence before it was relinquished, on the breaking out of the war, by mutual consent. But it must be remembered that, during its continuance, the bi-monthly conveyance of letters, *via* the Cape of Good Hope route (the ships, however, not touching there) to Melbourne, the voyage was performed quite as expeditiously as that by Singapore, outwards, returning by Point de Galle, Ceylon, which had been found by the Peninsular and Oriental Company to be better suited as the place of return than Singapore; but which line was also given up in consequence of the war.

Upon a comparison of voyages respectively made by the ships of the Peninsular and Oriental and the General Screw Steam Shipping Companies, under the last-mentioned routes and Contracts, it will be seen (vide Appendix No. I.) that the quickest conveyance of Mails from Southampton to Melbourne was accomplished by the "Argo" belonging to the latter Company, her last outward passage having been completed in 62 days.

Urged by the Colonial interests, both in Australia and at home, to make another effort in furtherance of an object so important and indispensable, the Board of Admiralty issued notices in March last for fresh tenders, and the required proposals were sent in by various parties, more or less experienced or experimental, neither of which were accepted; and thus, after a lapse of ten years, the vast and increasing trading communities in correspondence between Great Britain and the Australian Colonies, and other large sections of the people in both hemispheres, interested in regular and speedy postal communications, still remained without any provision for the conveyance of mails with the already ascertained (to say nothing of the improved) rapidity with which their transit can be accomplished through the medium of steam propulsion.

That all that can *now* be done has not already been achieved, either in the way of improved routes or accelerated speed, may

be easily proved, if the experience of the past, and the practical lessons thereby inculcated, may be accepted as the safest guides; and it would certainly appear to be better that those experiences, the results of heavy outlays in money, and the absorption of ten years in otherwise unprofitable delay, should form the bases of immediate provision, rather than that the risk should be run of further failures. This is not a mere question of linear distance, but infinitely more so of physical phenomena. In fact, as far as Australia is concerned, the prevailing winds, the course of currents in different latitudes, and the longitudinal variations also, affect the selection of the best route more materially, both the outward and homeward passages considered, than in that of any other voyages of similar magnitude.

As it is generally conceded that the sail and the screw, properly adapted, combine the essentials of propulsion, partly or wholly for the object in view, the best method of arriving at a right conclusion, is to take the log books of both sailing ships and steam ships, and, observing the courses they have respectively taken, and the winds and currents they have met with, to ascertain from those practical results, the most eligible route. For this purpose I have taken the log book of a sailing ship for four consecutive voyages, commenced from England at four different seasons of the years 1853, 4, and 5, and which, consequently, shew the prevailing winds in the progress of the several passages, for the whole twelve months. (See appendix No. 2.) Now, if an ordinary merchant ship of 900 tons can, with sail alone, perform the passage from Plymouth to Melbourne in 79, 78, 80, and 71 days respectively, the deductions to be drawn from these data is, that, if with the winds and currents this ship experienced, she had been assisted with steam power, during the light or counter winds and calms, her passage might have been shortened as regards distance, as well as otherwise accelerated by increased speed.

To the particulars quoted from the log book of that sailing vessel, it is necessary to add the following analysis, from the log books of the ships of the General Screw Steam Shipping Company, for the only three voyages made under the postal contract direct from England to Melbourne.

"ARGO," 1st Voyage outward.

	TIME.	DISTANCE	STEAM.	SAILING	SPEED.	WEATHER.
	D. H.	MILES.	D. H.	D. H.	MILES.	
Needles to Canaries.	6 20	1,615	6 0	.....	9 8	Light and Calm ... 10days
Canaries to Equator.	10 4	2,488	9 7	.....	10 0	Moderate...39 ,,
Equator to Meridian of Greenwich	12 0	2,541	7 14	.....	8 8	Gales .....11 ,,
Meridian of Greenwich to Port Phillip	31 0	7,025	10 16	.....	9 5	
Passage.....	60 0	13,699	33 13	26 11	9 4	

"CALCUTTA," outwards.

	TIME.	DISTANCE	STEAM.	SAILING	SPEED.	WEATHER.
	D. H.	MILES.	D. H.	D. H.	MILES.	
Needles to Canaries.	6 18	1,572	6 12	.....	10 0	Light and Calm ... 18days
Canaries to Equator.	10 2	2,034	6 10	.....	8 4	Moderate...31 ,,
Equator to Meridian of Greenwich	12 0	2,522	4 3	.....	8 7	Gales .....20 ,,
Meridian of Greenwich to Port Phillip	40 0	6,988	4 19	.....	7 4	
Passage.....	68 20	13,116	21 20	47 0	8 0	-

"ARGO," 2nd Voyage outward.

	TIME.	DISTANCE	STEAM.	SAILING	SPEED.	WEATHER.
	D. H.	MILES.	D. H.	D. H.	MILES	
Plymouth to Canaries	7 16	1,698	6 0	.....	9 3	Light and Calm ... 16days
Canaries to Equator.	9 0	1,723	8 15	.....	8 0	Moderate...39 ,,
Equator to Meridian of Greenwich	15 0	3,239	9 10	.....	9 0	Gales..... 3 ,,
Meridian of Greenwich to Port Phillip	26 8	6,123	10 12	.....	9 8	
Passage.....	58 0	12,783	34 13	13 11	9 2	

It is thence apparent, that if on the first voyage of the "Argo," one knot per hour were added to her speed, by increased steam power, during the ten days light winds and calms by which she was delayed, 240 knots would be gained; and that if she had been full clipper-rigged she would have sailed, during the 39 days of moderate weather, at least one knot per hour faster, and thus have gained 1176 miles within that time; making

an acceleration of 1176 miles. A saving in distance, by taking a composite course of the great circle on the 43rd degree of south latitude, might also have been effected, and thus have altogether reduced the passage from 60 to 53½ days

The same principle is applicable in the examination of the two other voyages; but it will be seen that their distance was much reduced by the improved course that was taken.

From an attentive consideration of the materials I thus venture to submit to you, it will be seen that very great improvement can be made both in the adaptation of Screw Steamers, to the direct passage to Melbourne, and also in the selection of the most eligible route outwards and homewards.

It will of course be assumed, that ships capable of carrying fuel from England to Melbourne are indispensable; because experience has shown that the deviation from the proper course to obtain Coal, with the time necessarily occupied in taking it on board, has created a detention much greater than the reduction of speed that a smaller daily consumption of Coal would have occasioned. Hence the proportion of steam power to the tonnage of the ships to be employed, must be guided by the weight of Coal she can carry without materially affecting her sailing qualities. That a ship of 3,000 tons, full, or clipper-rigged, which under canvass, will sail with moderate breezes 10 knots, with strong winds 14 knots, and with sufficient steam power to propel her 10 knots, and having on board coal for 30 days' consumption, has not yet been constructed, I am free to admit; but that such a ship with these full appliances of sail and steam will make the passage to Melbourne, taken at the practical steering distance of 13,200 miles in 50 days, I am, upon the data adduced, fully warranted in asserting. One sailing vessel, as an instance, made good 7,264 miles in 31 consecutive days, being an average of 9¾ knots per hour. And I may fairly ask, is there any outward route that offers greater or equal general advantages?

The witnesses examined on Lord Jocelyn's Committee, proved that the westerly winds prevailing southward of the Cape to Melbourne, made that above all others, the most eligible route outwards; they consequently, recommended it

for adoption on that ground, as well as because of its being the most generally useful for passengers and freight; and the improvements in nautical and engineering science, and the practical experiences of the last five years have added so very considerably to these advantages, that there is no risk in assuming that the direct passage can be made with Mails and Passengers to Melbourne in 50 days.

The question then naturally occurs, which is the most eligible route for postal and passenger accommodation homewards? Most unhesitatingly I reply that, with ships of 3,000 tons, fully equipped as clipper sailing ships with 10 knots steam power, and fuel for 30 days' consumption, there will be no difficulty to get round Cape Leeuwin from Melbourne, against the prevailing westerly winds, and so to get into the South East Trade winds to the Northward of Cape Leeuwin, and proceed to the Mauritius—a distance of about 4,800miles —in 20 days.

The ship having arrived at the Mauritius in 20 days, the Mails, and the passengers so disposed, could be transhipped to a branch steamer, reach Aden in 10 days, and Suez in 5 days, say together 15 days, and from Suez by the established route, *viâ* Alexandria and Marseilles, to London, in 10 days; and thus perform the postal transit from Melbourne in 45 days. The passengers who wished to proceed to England with the ship from Melbourne would remain in her whilst coaling for a couple of days at Mauritius, proceed to the Cape in 10 days, there remain 2 days, and taking 30 days more to England, would make the voyage, including stoppages at the Mauritius and the Cape, in 64 days without any change.

By these means, also, Mails from England for the Cape could be brought to Suez, by the existing conveyance, thence by the branch steamer to the Mauritius, and on to the Cape by the homeward-bound steamer from Melbourne; and, allowing two days for reply, the same ship could proceed with the letters in 30 days to England, thus making a course of post of only 67 days to and from the Cape; and which is, in fact, shorter time than if by the direct Cape route. By reference to the map, the outward and homeward routes will be clearly

seen, as well as the physical obstacles to the Point de Galle route.

But it would appear from the forms of tender now issued by the Treasury, that all hope of a direct route of steam postal communication with Australia is to be, for the present, given up, and that encouragement is alone to be afforded to a route, *never hitherto tried on the outward voyage*, viz., *by the way of Point de Galle direct to Port Phillip!* Upon what premises I am totally at a loss to conceive, because scientific and nautical authority pretty generally concur in condemning that passage, upon the grounds of peculiar natural objections.

Applying the knowledge we possess of the meteorology of the Indian Ocean on the route between Point de Galle and Port Phillip, we find that in the southern summer a vessel proceeding from Point de Galle would carry the N. E. monsoon to within 2 or 2½ degrees of the Equator, thence to the Equator she would meet with calms and light airs, having passed through which she would enter the region of the N. W. monsoon. This monsoon would be found prevailing as far as 10° or 11° S., where another calm and light air zone exists, separating the monsoon from the S. E. Trade wind.

Thus far, the wind would have been in her favor; but, on entering the S. E. Trade wind she would have to pass over a linear distance varying from 1,200 to 1,350 miles, in which, whether the Trade wind blew to the eastward or the southward of S.E., it would still be against her. Then, having passed through the Trade wind, she would enter a third zone of calms and light airs, after which she would begin to feel the N. W. and S. W. winds prevalent on the W. coast of Australia, and she would bear away to the southward, as far as from 38° to 40° S., with the greater expectancy of carrying the westerly winds to her port of destination.

In the Southern Winter, on leaving Point de Galle, a vessel would first have the S. W. monsoon to within 1° or 1½° of the Equator, and after passing through a calm and light air zone about 2° or 2½° broad, she would enter the region of the S. E. monsoon, which, together with the S. E. Trade wind in this season, would give linear distance of not less than 1,600 miles, in which the wind would be dead a-head.

Having passed through a second zone of calms and light airs, W. and S. W. winds may be expected thence to Port Phillip.

Now, by the direct route from England to Melbourne, proposed by me, favorable Westerly winds prevail for 7,000 miles, being more than half the distance, and will, with the other advantages I have premised, secure the passage in 50 days; so that Mails, Passengers, and Goods, can be thus conveyed at materially less aggregate expense than by the Overland route *viâ* Southampton—equally quick—with fewer chances of incidental delay—and without any transhipment or stoppage whatever; whilst on the Homeward route the Steamer may reach Mauritius from Melbourne in 20 days, allowing one day there for transhipment of Mails; these will arrive at Aden in 10 days, and from thence, *viâ* Marseilles, at London in 15 days, being 45 days in all; and such of the passengers as might prefer the quicker transit, *viâ* Aden, would arrive at Southampton in 50 days. Meanwhile, the passengers continuing homeward by the ship bringing them on from Melbourne, after two days for coaling at the Mauritius, will come on to the Cape in 10 days, and with the Cape Mails, perform the passage to England in 30 days, and thus accomplish the entire voyage home in 64 days.

These propositions I place in the following tabular form for facility of reference.

Summary of proposed Route for the Australian and Cape Mails.

OUTWARDS.—*Australian Mails.*

England to Melbourne with Mails direct in ships of 3,000 tons in 50 days.

Cape of Good Hope Mails.

The Mauritius and Cape Mails to leave London *via* Marseilles, on the 10th of every month.

To Aden...	15 days
Aden to Mauritius	10 „
Mauritius to Cape	10 „
England to the Cape of Good Hope	35 days.

HOMEWARDS.—*Mail Route.*

Melbourne to Mauritius	20 days
Branch from Mauritius to Aden	10
Aden *via* Marseilles to London	15 „
Melbourne to England by Mail Route ...	**45 days.**

Main Route.

Melbourne to Mauritius	20 days
Coaling	2 „
Mauritius to Cape with Outward Cape Mail ...	10 „
Time to reply to Correspondence	2 „
Passage Home with the Homeward Cape Mail	30 „
Melbourne to England by direct Over Sea Route	64 days.

For this arrangement—combining the most rapid steam postal service at all points, with the least expensive, most convenient and quickest conveyance of those preponderating classes of passengers, that, frequently accompanied by their families, cannot afford the enormous cost inseparable from the Red Sea route—every possible advantage may be fairly claimed. It provides for the utmost acceleration of the Mails, out and home, that experience, nautical skill, and constructive science can accomplish; it leaves a choice of homeward conveyance to passengers from the Mauritius; and outward and homeward it presents the most appropriate means for freightage of whatever kind, without transhipment—to Australia for British and European exports, and from Australia, for Gold and other Colonial productions. Whilst the ships employed in the main line may be docked and refitted on their return, and thus add the assurance of greater certainty and regularity in the performance of their duty.

Further advantages will be perceptible to commercialists and others who examine the subject from different points of view; but I prefer confining myself to what I believe to be the most prominent, because I would rather understate my case than overrate it; and thus submitting it to the judgment of the public through the influential medium of your Lordship's

name, for the reason assigned at the commencement of this letter, I respectfully assume that my proposition contains all the essential elements of "the most eligible route" to and from our Australian Colonies.

I am,

My Lord Mayor,

Your most obedient Servant,

JAMES LAMING.

27, CANNON STREET, CITY,
12*th June*, 1856.

Company (Overland)

ADELAIDE.			
Arrived.	Passage.	Stopped.	
.....	.....	.....	
2 May ...	69	.....	
.....	.....	.....	
July ...	66	.....	9
.....	.....	.....	
Sept. ...	61	.....	3
.....	.....	.....	
Nov. ...	63	1	7
.....	.....	.....	
1 Jan. ...	68	.....	1

	POINT DE G.		
lled.	Arrived.	Passage.	Sto
		Days.	D
...	.....	.....	..
...	25 June .	.....	..
...	.....	.....	..
...	21 Aug...	30	..
...	21 Oct....	31	..
...	.....	.....	..
...	.....	.....	..
...	24 Dec. ..	34	..
...	.....	.....	..
...	25 Feb. ..	29	..

the General Screw Steam Shipp
12 days' stoppages at St. Vincen
.. ..

APPENDIX No. 2.

The "KENT" of 900 tons made four consecutive Voyages from Plymouth to Melbourne as follows:—

First Voyage—

From Plymouth to Port Phillip in February, 1853.

	Miles.		Days
Plymouth to Equator	3,424	in	21
Equator to Meridian of Greenwich	3,901	„	21½
Meridian of Greenwich to Meridian of Cape Agulhas	1,167	„	6½
Meridian of Cape Agulhas to Meridian of 40° ...	903	„	7
Meridian of 40° to Port Phillip	4,681	„	22
	14,076	in	79

Average of the Voyage 180.7 miles per day, or 7.5 per hour. During this voyage the Ship experienced 10 days of calms and light airs.

Second Voyage—

From Plymouth to Port Phillip in October, 1853.

Plymouth to Equator	in 26	days.
Equator to Meridian of Greenwich	„ 20½	„
Meridian of Greenwich to Meridian of Cape Agulhas...	„ 4½	„
Meridian of Cape Agulhas to Port Phillip	„ 27½	„
	78	days.

Third Voyage—

From Plymouth to Port Phillip, in August, 1854.

Plymouth to Equator	in 24	days.
Equator to Meridian of Greenwich	„ 15⅔	„
Meridian of Greenwich to Meridian of Cape Agulhas	„ 9	„
Meridian of Cape Agulhas to Port Phillip	„ 31⅓	„
	80	days

Fourth Voyage—

From Plymouth to Port Phillip, in May, 1855.

	Miles.		Days.
Plymouth to Equator	3,581	in	24½
Equator to Meridian of Greenwich	3,392	„	18¾
Meridian of Greenwich to Meridian of Cape Agulhas	958	„	4¼
Meridian of Cape Agulhas to Meridian of 40° ...	837	„	3⅓
Meridian of 40° to Port Phillip	4,544	„	20
	13,312		nearly 71

Average of the Fourth Voyage is 187.5 miles per day, or 7.8 miles per hour. She, this voyage, experienced six days of calms and light airs. During this passage, on the 20th June, in latitude 29° 28′, South; longitude 19° 20′, West. She made in 31 consecutive days a distance of 7,264 miles, running the greater part on the parallel of 42° South latitude.