

OPINION OF THE SHIPBUILDERS.

4th October, 1858.

GENTLEMEN,—

In reference to the class of ships we have agreed to build for your proposed Company, we beg to say that we have attentively considered the subject of your proposed line. Taking into account the favourable offing afforded by the departure from Queenstown, which we deem a very great gain, and also the exceptionally fine and free navigation in the Pacific on the line you have selected, we are of opinion your ships will, on the whole voyage, maintain the average of 12 knots, our guaranteed minimum speed being 13 knots.

Assuming the distance of 12,063 miles to be nearly correct, as it appears, 10 knots an hour would be about 50½ days, the lowest average to be expected, and 12 knots under 42 days' steaming. We speak here as engineers, without reference to the above favourable circumstances; so that, fair and foul, your proposal of 45 days for the eight favourable months, and 50 days for the other four of heavy weather in the Atlantic, seems to be fairly within the mark. And we have no hesitation in saying that we expect you will be enabled to effect a considerable improvement in course of time, when the line is properly organized.

We are, &c.,

EVIDENCE BEFORE THE COMMONS' COMMITTEE OF 1851.

The result of operations since the report of the Committee on Steam to Australia (1851) proves the accuracy of the views of Captain Sir Edward Belcher, R.N.

Preferring the Panama route, he says:—"I think that the passage out is secure and smooth, and that the return is not liable to so many dangers, either to the machinery or to the vessel, as by either of the other routes. I consider that by the other two routes you would have, in most cases, either the outward passage to perform before the wind, or the passage back dead against the wind, in either case with very heavy seas or with calms, as the case may be, and I think you are more subject to be influenced by the different monsoons; whereas in the Pacific, I think in either case you would have a leading wind, which is the best wind always for a screw steamer, or you would have an opportunity on the return passage of having what is called a soldier's wind, and that the breezes which blow there would enable a vessel to go faster than she would even with strong breezes on the other side."

He is asked as to the obstruction of the westerly breezes south of the Friendly and Society Islands, a little beyond the Tropics. "They are not," he tells us, "sufficiently strong; in fact, she would make a leading wind of it till she got farther south, or she might run farther north. She would lie so close to the wind under the screw,—she would run within four points of the wind. I do not think it would have any material effect upon her voyage." "Are you considering that the vessel is burning fuel all the time?" "Only light fuel; I consider that she is burning only half her coal when she is performing that sort of work; she would consume her whole coal only when she was making a direct set head to wind." "What tonnage is calculated on?" "Anything over 1,000 tons." "What power to 1,000 tons?" "About from a fourth to a fifth of her tonnage. I consider that as soon as you arrive at 1,000 or 1,200, the weight of the vessel is such that the velocity which is given by the engines to force the vessel under ordinary circumstances through the sea will not be much affected by the wind, her yards are so much out of proportion as compared with a smaller class of vessels. She has no spars to impede her; her own weight will keep up her velocity; she is not so easily affected by head winds."

This impartial evidence, corroborated in all its material points by past experience, as well as by the original and, at the time, unbiassed testimony of Captain Fitzroy, who thus deliberately recorded his judgment on the 10th September, 1850. After denouncing in the most concise and emphatic terms the courses, 1st, *via* Torres Straits; 2nd, by Cape Leuwin; and 3rd, round the Cape of Good Hope, he adds:

"The fourth line, by the Isthmus of Darien and across the Pacific, is shorter by nearly 2,000 miles than the first, which is not so long as the second, and is considerably less than the third. Fine weather, smooth seas, and an equable climate of agreeable temperature prevail; the only obstacle of consequence being the transit of the Isthmus, and even that is likely to be much lessened. Between Panama and Sydney the ocean is unequalled for the facility afforded to navigation. Steady moderate breezes, regular currents, and clear weather are everywhere prevalent. The precise situation of every island near the proposed route is known. Supplies may be procured, and coal can be carried cheaper, from America, New Zealand, or Australia, if not from the North Atlantic.

"Having myself circumnavigated the globe twice, in merchant ships as well as in the command of a surveying expedition, and having traversed that delightful space of ocean above mentioned, between Panama and Sydney, when induced by duty as well as by inclination to study its peculiarities, I feel bound to add my mite towards attracting the attention of the public to the comparative advantages of establishing, by way of the Isthmus of Darien, the principal line of 'Steam communication with Australia.'"

OPINION OF CAPTAIN TOOKER.

Steam Ship "Preussischer Adler," 1st October, 1858.

MY DEAR SIR,—

In answer to your request that I should give you my present views as to your plans, I have only to repeat my observation in the letter I addressed to you so long ago as the 28th of June,