

I am therefore of opinion that the light on Cape Pine should be a fixed light, of the most powerful kind, recommended by Mr. Gordon. The "Catoptric System" of lighting, with its Argand lamps and reflectors, being more simple, less liable to derangement, and therefore better suited to a position so remote, and so far removed from either surveillance or assistance, whilst it is also less liable to suffer from the rapid and extreme changes of temperature which so frequently occur here.

7. The Lighthouse should not, I think, be less than 70 feet in height; but I can offer no opinion founded on experience respecting the comparative merits of iron and stone for its construction. If there be no objection to the former, on account of the great and sudden variations of temperature in Newfoundland, it would seem to be preferable, from possessing the advantages of being more expeditiously made, transported and erected.

If stone be adopted, it will require to be cased in wood, as has been found necessary in less exposed situations in the neighbouring colonies. The insinuation and subsequent expansion of water by freezing, soon destroys ordinarily good masonry in these countries, and could scarcely fail to do so on so exposed a situation as Cape Pine, where the change from driving rain, and a temperature of 40°, to an extremely dry air, and a temperature below zero, sometimes occurs in little more than 24 hours.

The clay-slate formation in the neighbourhood of the Cape affords no good building stone, certainly not for the outside facings, neither is there any large timber there; therefore, if either iron or stone be adopted, all the heavy materials will have to be brought from Great Britain or the neighbouring colonies.

Every thing required for the Lighthouse should, in the first instance, be taken to Trepassey, and thence transported to Cape Pine, a work of considerable difficulty, respecting which I beg leave to offer the following remarks:—

8. From Trepassey out to Cape Pine, and thence round the headland to St. Shotts, the precipitous clay-slate, in vertical strata, is nearly or entirely inaccessible. The only landing-place is at Arland's Cove, three-quarters of a mile to the westward of Cape Pine, and there I do not think it would be possible to land heavy materials above once in a fortnight, upon an average, during the summer months, when the prevailing south-west winds send in a constant swell upon the coast. In the spring, when northerly and easterly winds are frequent, and often of long continuance, with moderate weather, there would doubtless be less difficulty, and the months of May and June would possibly afford many opportunities for transporting the materials from Trepassey, if they were placed there in readiness during the preceding autumn.

The small fishing schooners and boats of the place, under the management of their experienced owners, would afford the readiest and best means of transport; and if, in addition, a steamer could be added, to tow the laden boats out to the Cove at once, when opportunity offered, and to bring them back again into shelter, on the approach of bad weather, or wind or swell, upon the coast, it would add greatly to the expedition and safety of the work. No other description of vessel could remain near Cape Pine without very great risk.

9. The communication by water being in the most favourable season precarious, and in winter impracticable, a road from Trepassey to the Lighthouse appears to me indispensable, and this appears to be the opinion also of Colonel Robe, the Commanding Engineer at St. John's. Lieutenant Binney, R. E., was sent to Trepassey whilst I was there, to communicate with me, to collect information on various points, and to survey the most accessible line for a road over the barren moors; to assist him in this latter duty I furnished him with the principal points and outline of our survey.

10. As there has been much difference of opinion as to which is the point on the south-east coast of Newfoundland on which it would be most beneficial to place a light, I beg leave to offer the following remarks upon that part of the subject:—

The principal use, and a most important one, of the light on Cape Pine, will be its tendency to prevent the numerous and fatal shipwrecks which are continually occurring in the vicinity, among the homeward-bound vessels from the Canadas