[^0]To this saving in money must also be added the important consideration that portions or the whole of the trestle-work may be destroyed by fire, which are of frequent occurrence in the woods, through which the whole of this section of the railway passes.

Should such an event occur, the traffic of the line would be seriously interrupted. Indeed, it is not at all improbable, some portions of the trestle-work will be destroyed by fire before the line is opened.

These dangers will be entirely removed by the adoption of the course now recommended.

Yours truly,
(Signed) JAMES H. ROWAN.
Sandford Fleming, Esq.,
Engineer-in-Chief.

## Winnipeg, 6th November, 1877.

Dear Sir.-I beg leave to make the following remarks and proposition in reference to the work on Contract 15, with a request that you will submit the same to the Government.

The quantity of rock required to be placed in the base of embankment through lakes, in order to make them wide enough to carry earth embankment, subsequently has to be carried such a distance over intervening spaces as to greatly retard the progress of the work. The disproportion between the quantity of material in the


[^0]:    Or putting it in another form, as follows, the result would be, estimated cost of completing now the banks with earth instead of trestlework :-

    Earth $1,433,281$ cubic yards @ 37 cents. $\$ 530,31397$
    Timber in culverts.
    20,030 75
    Permanent structures......................... 70,000 00

    Trestle-work done away..................... | $\$ 620,344 \quad 72$ |
    | ---: |
    | 361,056 |
    | 61 |

    $\$ 258,48811$
    Suppose trestle-work put in now at a cost of $\$ 361,85661 \Longrightarrow$
    And that it would last 10 years before being replaced by earth, 1,433,281 cubic yards @ 28 cents................. 401,318 68
    To which add timber in culverts......... 20,03075
    do permanent stractures...... 70,00000
    Add 10 y 0 .
    Add 10 years simple interest at 5 per cent. on $\$ 361,856.61$
    trestle-work
    180,92830
    \$1,044,134 34

    If for purposes of comparison, 10 years simple interest at 5 per cent. per annum be also added to present increased cost, on account of change................ \$620,344 72
    Interest............................................................ 310,172 08
    $\$ 930,51680$
    Shewing a balance even this way of ..................... \$103,617 54

