

~~Bohny~~

6151  
28<sup>th</sup> August 1899

Dear Sir,

re Rushmore

Our Representatives attended at Rushmore on Friday last and tested the Lightning Conductor there. We trust the lateness of their arrival did not greatly inconvenience you, but it appears they did not anticipate the difficulties of access by road to the Mansion that arose. However our Representatives electrically tested the Conductor and as a result we beg to submit the following report and suggestions for your consideration.

- 1 The conductivity of the Lightning Conductor from the top to the ground level is good and in this respect the Conductor is in order, but
- 2 The ground connection, immediately below the level of the earth is defective, inasmuch as no electrical circuit could be formed the earth plate connected to the Conductor having evidently perished and become useless; and
- 3 The Conductor in its present state is dangerous to the building as, owing to the above defect, if struck by Lightning the electrical fluid not being properly carried away to earth would discharge itself on the building and probably do a considerable amount of damage.

This defect could be remedied by a new short length of tape and copper earth plate being fitted to Conductor immediately below the ground level, but we do not recommend this course for the following reasons:—



(a) The whole conductor is of an old and obsolete pattern and owing to its rough edged surface will easily corrode from atmospheric influence, and

(b) The position in which the conductor is now fitted is not sufficient to properly protect the Buildings as the conductor should be fitted to the highest point thereof and we are informed a Flagstaff runs up near to and beyond the Lightning conductor itself and it is this Flagstaff which should be fitted with a conductor. We, therefore, beg to suggest that we be allowed to supply and fix a new Lightning conductor of  $3/4" \times 1/8"$  solid copper tape (which does not corrode from atmospheric influence) to the Flagstaff, with suitable Upper terminal, the tape to run to earth and there wired to a solid copper earth plate ( $2' \times 2'$ ) thereby affording a proper and efficient protection to the Building. Our price for doing this we supplying all labour, tackle, materials etc, would be  $3/6$  per foot run of the tape, and £2  $2/6$  for the earth plate. (nett)

Awaiting the favour of your commands

We are, dear Sir,  
Yours obediently  
Butting & Co

Total cost £18.18.0

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