carried the interpretation of
Macroscopic phenomena very
much farther, & have also
shown why it is that this method
is so efficient, by demonstrating
the fundamental propositions and
~~showing~~ ascertaining what they
really are.

It is most unfortunate that in
addition to all the Astronomical work
I have had to do, I am also down
for a lecture in the R. Institution
which is involving very serious labour.
And I am nearly 71. I am a
patient man, but at my age these
things badger me a good deal.
And added to them is the annoyance
of an attempt to cut me out, which
which it is stated to me is backed
up by you. Yr affte ~~Uncle~~
G. Johnstone Stoney.

8 Upper Hornsey Rise. N.
1897 Jan. 22.

13/14

Dear George

Very many thanks for
your note.

As Preston tells me he
intends to publish before I have
time to write out more of what
I worked out months ago —
almost all ~~much~~ of it more than a year
ago, some of it nearly 50 years
ago — I have sent an ad interim
letter to the Phil. Mag. for which I
hope they will find room, giving
without mentioning his name, Lord
Rayleigh's understanding of the part
of it I have published —

On the whole I see that you & I are ~~in~~ hunting round a circle. What you start with — that any pattern can be analysed into gratings — is in my method of treatment Theorem 2 of my paper & is deduced from Theorem 1. You will find this proof of it in Section 30 (N.B. 30) of my paper, p 438, in connection with which please read 30 & 31 of the table of contents on the inside of the wrapper. The gratings are of infinite extent, each consisting of equidistant straight luminous bars all alike & uniform throughout their whole extent — each with the same intensity every where, the same phase & the same position of transversal.

Can this proposition be proved independently of Theorem 1.? And could you refer me to where I shall find it proved? This reference may be of great use to me.

13/14

Abbe had glimpses of these things, but I am not aware that he had more vision of them than can be inferred from an examination of what I call 'image x', see Sec. 34 of my paper, p 503. But it was wholly because Abbe had shown that, they are very useful in interpreting microscopic vision, that I was started on the work. I have