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271 MADISON AVENUE.

NEW YORK.

Oct 15<sup>th</sup> 1879

My dear Prof Facchini

I take great pleasure  
in congratulating you on your  
splendid promotion. The position  
at Rome will give you a grand  
opportunity of doing great work.

Please also to accept  
my thanks for the handsome  
manner in which you have published  
my paper on "Oxygen in the Sun"  
in the *Memorie*. I am just

preparing a paper on "Photography  
of Stellar & Planetary Spectra" to  
read before our National Academy  
of Sciences this month. I have  
had great success & have obtained  
the spectra of Vega, Arcturus, Capella,  
Jupiter, Mars, <sup>Venus</sup> the Moon &c. As  
you doubtless know I have been at  
this work since 1872 and indeed  
my 28 inch telescope was built to  
accomplish it. The spectrum of  
Capella as far as I can see, <sup>at present</sup> is  
identical with the Solar spectrum.  
Vega has eleven great lines in the  
ultra violet, two of them are hydrogen  
[near  $\lambda$  4350; and  $\lambda$  4101] another

$\lambda$  3968  
Coincides with  $H_{1,1}$  and is of similar size,  $H_{2,1}$  is only represented  
by a fine, narrow line. Above  $H_2$  there are at least 7  
large lines which I have not yet identified.

$\lambda$  3933

Wm. S. Phillips  
New York