

SEPTEMBER 26th., 7.

Dear Mr Hackett,

Dr Keen has handed to me your paper on the Capillary Pull of an Ideal Soil, which I have read with great interest. As you will have seen, Haines and I differ somewhat profoundly as to the interpretation of his observations with the Atterberg wedge, while he is still inclined to interpret as measuring the static stress due to capillary forces in the soil, but while I am more inclined to ascribe to the work needed to rupture the aggregate. Haines' attempt to treat of soil cohesion seems to me to fail, and I am glad therefore that in his last paper he turns his attention to the more important aspect of the situation represented by the pressure deficiency, and its relation to capillary rise.

If I understand your paper rightly you have obtained by a very direct method a measure of the pressure deficiency which will just draw the meniscus through an aggregate of packed spheres. I am not quite clear whether you identify this pressure with the entry value which plays such a conspicuous part in Haines' treatment. If you could spare the time I should be very glad also if you would clear up the calculations of your letter of Sept. 16th., of which I have very stupidly missed the point. I do not know how the numbers 24 and 9.5 were obtained from my table p. 502, and from the agreement with observation. I feel I am missing something rather interesting. I enclose a further Note which I wrote on reading

Haines' last, which rather annoyed me. Perhaps I have expressed myself too sourly; certainly Keen would be glad not to publish it; it would in any case come after your paper, but you may like to see it, and to put me right if I seem unfair.

Yours sincerely,

Here is a copy of my previous paper in case you have not one.