

58 rue de Valenciennes

Paris

Monday, Sept 20/75

Acc 100

My dear George,

I am now set up in this city. I have taken a room in a "maison meublée" which is situated about  $\frac{3}{4}$  of a mile south of the Seine and is within 15 minutes walk of the Ecole des Ponts et Chaussées. The room itself is 18 ft. by 9 1/2 ft. and the floor is paved with hexagonal tiles. They promise me a carpet in winter. It has two windows facing to the south and overlooks the large embankment gardens, which are about  $\frac{1}{4}$  of a mile long and 300 yds. wide and  $\frac{1}{4}$  of a mile long, without counting the Avenue which extends from the further end to the Observatory, the domes of which I can also see.

The room also is very comfortably furnished.

The entrance examinations to the School are rather formidable but I am hoping to obtain exemption from them on the ground of my studies at M. S. Hill.

I have sent in such certificates as I can muster & have also deposited a copy of the Calendar which Father sent me, and in which I have marked the passages referring to text books, courses of study, &c. & also my name in the lists of graduates.

I cannot learn at present what the result will be, as there is now at the School only the Secretary (at least I take him to be so) and the question of admission rests in the hands of the Inspector, who comes round just before the Exams. Comm. & Licence, and looks over the applications & decides all these interesting questions. I shall

therefore to wait till the 6<sup>th</sup> of next month before knowing, which is rather awkward, and I am now studying in preparation. There is a work on Mechanics by one of the Professors (Collignon) which is extremely well written. He begins in his first volume with motion or cinematics and does not take in the idea of force at all in it. The first part is theoretical, and toward the end it covers most of the ground that Goodenow goes over. Then he takes up Statics in a second volume & Dynamics in his third. Another subject which I am studying is called "Descriptive Geometry". It is a sort of advanced style of projection, and shows how by means of diagrams representing the projections of lines & planes on surfaces, all sorts of problems respecting their distances, relative positions & mutual intersections, can be solved. Projection as I have studied it, comes in as one department of this subject, & altogether it is a very useful & convenient thing to understand about.

I hate this thin paper, but as they only allow 10 francs for a postage, I hope you will excuse it. I inclose this home, as I do not know what your address is to be. — I saw the applications of some of the other élèves externes, & find that Turks, Russian, Poles, and Roumanians, &c are among the number. There are also at the school the élèves Ingénieurs who come from the "Ecole Polytechnique".

With much love, believe me  
to remain affectionately  
brotherly  
William.