

Nov. 18, 1896

A. A. Merrill, Esq.

Dear Sir.

I have your letter of 16 Inst. It is now my impression that I originated the use of the terms "lift" and "drift" as applied to air reactions. When I first tabulated the results of the Duchemin formula, I headed the columns as "Vertical component" and "horizontal component," but it struck me that these terms were too long, and I substituted lift and drift, as explained on page 7 of my book. Since then the terms seem to have found favor and to be generally used, but I do not know whether their fitness has ever been discussed before.

I am more desirous of promoting correct phraseology than of defending my selection of terms, and if there be serious objection to the meaning which I affixed to those two words, I want it brought out.

At first, I thought of horizontal winds only, but when I came to describe various phenomena of "aspiration" and to try to account for them, I saw that I had to treat of ascending trends of wind, and the question came up as to their reactions. This I worked out by calculating the whole normal pressure as produced by the total angle of incidence of the wind, and then applying it to the surface at the angle which the latter formed with the horizon. There may be reasons why it is preferable to work this out in the way you propose and I wish you would favor me fully with your views and an example.

I will copy the translation from Lilienthal, and send it to you soon. If you had "Moedebeck's Taschenbuch für Flugtechniker und Luftschiffer" it would have saved my copying the table. You can get the book from W. H. Kühl-Jägerstrasse 73-Berlin, W, Germany, and M. N. Forney., 47 Cedar St., New York City, had a few copies. Price \$1.25.

I am very glad to learn that the Massachusetts Institute of Technology is to try some experiments to ascertain just how air pressure act. I submitted a paper to the American Association for the Advancement of Science, at its last meeting, calling attention to the fact that much experimenting was still required in aerodynamics, but I am afraid that the professors were not impressed with the importance that attaches to those experiments.

Resply

O. Chanute