voyages, the hoped-for success of the aeroplane in war and in peace, the development of agriculture, the safety of our vessels, all depend on our knowledge of the atmosphere, and our anticipation of its vagaries.

We have done wonders on land and sea, on the mountains and underneath the oceans, but we have scarcely begun to appreciate what we may do in the atmosphere. We may not change its winds, its rains and snows, but we may learn to utilize them to advantage. The investment of a half million dollars in one laboratory, with its physicists and mathematicians devoted to research in the physics and mechanics of the atmosphere, would do for meteorology as much as the wonderful observatory at Mount Wilson is doing for astronomy.

One hundred years ago James Smithson of England entrusted his fortune to the United States as executor of his will, and from that evidence of his faith in America, innumerable benefits have followed. How long will it be before meteorology receives a corresponding attention?

The state of New York has furnished such men as Myer from Buffalo, Henry from Albany, Redfield from New York—eminent students who died without realizing their fondest hopes. Americans are profiting unconsciously by their labors in meteorology. Will they not invest 1 per cent. of their earnings in the promotion of an institute devoted to man's progress in this important science? They can do nothing better for humanity.

C. ABBE

MORE BOTANICAL ERRORS

PROFESSOR NEWCOMBE'S communication entitled "Professor Punnett's Error," on page 442 of the present volume of SCIENCE, prompts me to call attention to the fact that Punnett is not the only zoological writer who displays ignorance of elementary botanical facts. Two books in common use in our universities exhibit the same error as Mr. Punnett's book. One of these, "The First Principles of Heredity," by Dr. Herbert, contains the following exposition (page 21): "Among plants we find male and female germ-cells in all flowering species—the former, the pollen-grain, being developed in the anther of the stamen of the flower; the latter, the ovule, lying in the ovary, to which the pistil leads. Most flowers possess both sexual organs, stamen as well as pistil; . . ." It will be sufficient to point out three of the patent misconceptions in this extract: (1) the pollen-grain and ovule are not germ-cells; (2) the stigma or style, not the pistil, leads to the ovary, which is itself part of the pistil; (3) stamen and pistil are not sexual organs, for they bear *asexual* spores. The second work referred to is E. Davenport's "Principles of Breeding." On page 161, speaking of the ovum, the writer says "Its equivalent in plants is the ovule." In the next paragraph the writer says that the spermatozoon is "the functional equivalent of the pollen grain of plants." The errors here involve the same misconception as in the first case, but are less serious.

Botanists of course regret that the term ovary should have been wrongly applied to the sac which contains megasporangia, but the usage seems to be here to stay, and certain of our zoological brethren might well consult a dictionary when dealing with botanical topics.

M. A. CHRYSLER

"WASHINGTON SCIENCE"

UNDER the above caption which is assumed to have "depreciatory significance," "Washingtonian" "who has spent nearly half a century in scientific work, under government auspices" writes[1] defending government scientists.

It is with pleasure that I endorse every statement of his article and in many cases I could add much more of commendation from my personal knowledge. It is suggested that "outsiders" can help if they will to promote the ideal service, hence I have attempted to define what "depreciatory significance" the above title might have in my mind and to suggest a remedy.

It seems to me that the difficulty is one of

[1] SCIENCE, N. S., XXXIV., 405, September 29, 1911.