

world, reaching as low as 27.4 inches. The observations for four years, 1884 to 1887, have just reached this country. During the four years sixty-eight storms and twenty-four high-areas have crossed over or very near the summit. As far as studied, the results have shown very materially different conditions here from those at Mount Washington. This is due in part to the lowness of the mountain, and in part to the proximity of the ocean on the west or on the side from which the storms advance. A comparison between Mount Washington and Ben Nevis shows, if any thing, that temperature and moisture have little or nothing to do with the generation of storms. At Ben Nevis the most extraordinary depressions are accompanied by only the slightest change in temperature, while at Mount Washington most remarkable changes in temperature are accompanied by much smaller changes in pressure. These facts would seem to show the extreme need there is of confining ourselves to the certainties of our own studies and conditions, and also the absolute impossibility of making and comparing any except the very broadest generalizations regarding weather conditions in Europe and America. H. A. HAZEN.

Washington, D.C., May 8.

### Flying-Machines.

THE communication from Mr. H. A. Hazen in the issue of *Science* for May 1, and his quotation from Le Conte, already

familiar, I presume, to many readers, suggests the following "deadly parallel:"—

(1) We cannot devise a method of utilizing fuel or a source of energy that shall equal the bird (land-animal, or fish).

(2) We can never build a machine which shall be as perfectly adapted to its purpose of self-transportation as the bird (the land-animal or the fish).

(3) There is a limit of weight, say fifty pounds, beyond which the bird cannot fly (one at which the animal cannot run, the fish live and swim).

*Ergo*, we can never build a flying-machine to carry a man [a railway train to excel the trotter at a mile in two minutes, the whale of a hundred feet length, swimming fifteen miles an hour].

Remembering what the first century of the operation of man's unimpeded inventive power has accomplished, with steam, with electricity, and with the infancy of his machinery, may it not be just as well to cease the attempt to define the impossible? T.

### AMONG THE PUBLISHERS.

A QUESTION that has often been discussed is, whether it would be possible to produce rain at will by the use of explosives. It has been claimed by some that rain has followed cannonading, and to test the matter experimentally the latest Congress appropriated

Publications received at Editor's Office,  
May 4-9.

FISKE, A. K. *Beyond the Bourn: Reports of a Traveller returned from "The Undiscovered Country."* New York, Fords, Howard, & Hurlbert. 222 p. 16°. \$1.

FLOWER, W. H., and LYDEKKER, R. *An Introduction to the Study of Mammals Living and Extinct.* London, Black. 763 p. 8°. (New York, Macmillan, \$6.)

HANS ANDERSEN'S Stories. Newly translated. In two parts. Part II. (Riverside Literature Series, No. 50.) Boston and New York, Houghton, Mifflin, & Co. 205 p. 16°. 15 cents.

HORSFORD, E. N. *The Defences of Norumbega: A Letter to Judge Daly.* Boston and New York, Houghton, Mifflin, & Co. 84 p. 1°. 80 cents.

MACFARLANE, A. *Principles of the Algebra of Logic.* Edinburgh, David Douglas, 1879. 155 p. 12°. (Boston, Ginn, \$1.35.)

WATSON, L. H. *Not to the Swift. A Tale of Two Continents.* New York, Welch, Fracker Company. 399 p. 12°. \$1.25.

WESTERN Bookseller and Newsdealer, The. Vol. I. No. 1 e. o. w. Chicago, Western Bookseller. 40 p. 8°. \$1 per year.

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