

by Professor Buff to perform the work are thus the *vis a tergo* of the trade-wind drift, and the direct driving power of the anti-trades, producing what has been called the anti-trade drift. This is quite in accordance with the views here advocated. The proportion in which these two forces act, it is undoubtedly impossible in the present state of our knowledge to determine.

Mr. A. G. Findlay, a high authority on all hydrographic matters, read a paper on the Gulf-stream before the Royal Geographical Society, reported in the 13th volume of the Proceedings of the Society. Mr. Findlay, while admitting that the temperature of north-eastern Europe is abnormally ameliorated by a surface-current of the warm water of the Atlantic which reaches it, contends that the Gulf-stream proper, that is to say the water injected, as it were, into the Atlantic through the Strait of Florida by the impulse of the trade-winds, becomes entirely thinned out, dissipated, and lost, opposite the Newfoundland banks about lat. 45° N. The warm water of the southern portion of the North Atlantic basin is still carried northwards; but Mr. Findlay attributes this movement solely to the anti-trades—the south-west winds—which by their prevalence keep up a balance of progress in a north-easterly direction in the surface layer of the water.

Dr. Carpenter entertains a very strong opinion that the dispersion of the Gulf-stream may be affirmed to be complete in about lat. 45° N. and long. 35° W. Dr. Carpenter admits the accuracy of the projection of the isotherms on the maps of Berghaus, Dové Petermann, and Keith Johnston, and he admits like-