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Oct. 10, 1935

A Science Service Feature

? WHY THE WEATHER ?

Mailed Oct. 3, 1935

ANTARCTIC WIND POWER

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Prof. Frank Debenham, who, in his recent address before the British Association for the Advancement of Science, suggested the startling project of establishing sanitarium in the Antarctic, also pointed out another way in which, in time to come, that now almost worthless region may be turned to account. He said:

"Although the land can have little value in the Antarctic there is, strangely enough, a natural resource in the air which, however fantastic it may appear to us, may yet have a substantial interest for our descendants. It is a truism of science that we draw practically all our sources of power from the sun, either indirectly in the form of coal and oil, or directly in the form of water-power, in which the sun by evaporation has raised water to a height from which gravity, suitably used, returns power to us. Now, although water is one of the things of which there is a great scarcity in the polar regions, and the movement of ice masses can scarcely be handled by engineers, yet meteorological processes are doing the same thing for air, raising masses of air in one area which sink down in another, and so provide a source of power less tangible but just as real as that of water in a highland lake.

"The persistence, the strength and the frequency of the Antarctic blizzards compels anyone who has experienced them to feel that here is a vast source of power as yet untapped. May we be permitted to forecast that some day the miseries of the stormbound parties of Mawson's expedition, when for a whole year the wind averaged gale force, may be atoned for by our descendants' making use of this power when coal is scarce and oil exhausted, while all the water-power in the temperate regions is fully harnessed? Compare the power in the well-known falls of Niagara, about 6,000 tons of water falling per second, with the power in the little-known Adolie Land, where an air river of at least 50 miles in width and probably some hundreds of feet in depth is moving outwards from the plateau at an average velocity of 50 miles per hour, or about 70 feet per second for most of the year."

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2101 Constitution Ave.  
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