

A Science Service Feature

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? WHY THE WEATHER ? Mailed March 26, 1935

MATCH-BOX METEOROLOGY

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Authority on Meteorology

A "tempest in a teapot" is not necessarily a figure of speech, for the circulation of the boiling fluid bears a certain resemblance to that of a cyclonic storm; which can also be observed in miniature by stirring a cup of tea with a spoon and noting the movement of the tea leaves, as a German meteorologist, Dr. Koeppen, pointed out many years ago. Now another German, Dr. F. Rossmann, tells us in a current scientific journal how "wind structure," which plays so important a part in aeronautics, can be studied with the aid of a match-box.

In windy weather, he says, a sailor wishing to strike a match, turns his back to the wind and draws the cover of the match-box to its full length, so that it can be tilted obliquely to the box, leaving a small crack below between box and cover. In this position it is easy to keep the match alight inside the cover long enough to light a cigar or cigarette. The average landsman, he tells us, draws the cover only about two-thirds the length of the box and then punches a hole through the cover with a match, close to the end of the box. Various notions prevail as to why this hole is made, but the process is not effective.

The sailor has better luck in keeping the match alight because with the box and cover in the positions above described a smooth, steady stream of air blows through. The landsman's match promptly goes out because the wind, blowing across the open end of the cover, produces violent eddies inside. The hole in the cover makes little difference one way or other in the turbulence of the air.

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