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? WHY THE WEATHER ? Mailed September 29, 1928

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THE SAILOR'S HORN CARD

In a tropical cyclone the winds blow at high speed around the center of lowest barometric pressure -- "counter-clockwise" in the northern hemisphere and "clockwise" in the southern -- while the storm as a whole travels at a moderate speed over the surface of the globe. Such are the essential facts embodied in the Law of Storms, which was discovered and made familiar during the first half of the nineteenth century.

One of the pioneer exponents of this law was Henry Piddington, of Calcutta. In order to aid sailors in grasping the facts above set forth and in utilizing them so as to give storms a wide berth, Piddington devised a pair of "horn cards", one for each hemisphere. These were small transparent sheets of horn, on which were drawn concentric circles, representing isobars or lines of equal barometric pressure, surrounding a storm center, and arrows representing the directions of the winds in the different parts of a storm. By moving one of these cards in an appropriate direction slowly over a map on which the position or course of a ship was marked, the successive shifts of the wind and changes of pressure attending the passage of the storm were shown. Piddington's "Sailor's Horn-book for the Law of Storms", published in 1848 and in several later editions, contains a pair of horn cards in pockets attached to its covers.

Modernized horn cards are used by some navigators at the present day. They are made of transparent celluloid or tracing paper. The wind arrows are drawn in accordance with knowledge acquired since Piddington's day concerning the "indraft" of the winds with respect to the isobars and carry various numbers of barbs to show the relative strength of the winds at different distances from the center. All such data represent average or typical conditions, from which individual cases may differ considerably, but they are accurate enough to make the horn card a useful adjunct of "storm strategy".

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