WHY THE WIND BLOWS

A Study of the Circulation of the World's Atmosphere.

FORCES THAT MOVE THE AIR.

Contrasts In Temperature, High and Low Pressure and a Law of Nature Called the Deflecting Force of the Earth's Rotation.

It is a matter of common observation that when the window of a warm room is opened on a still winter night the cold air from without rushes into the room. Nearer the ceiling the warmer air is forced out of the window, thus completing a general atmospheric circulation on a miniature scale. These currents of air, which might properly be called wind, would not occur if the air within doors was not warmer and consequently lighter than the air without.

The range in temperature between the equator and the north pole amounts in winter to considerably more than 100 degrees F., and in summer the contrast is also great. Moreover, in summer the continents are warmer than the oceans, but in winter the reverse is true. Three examples will serve to illustrate how such contrasts affect the winds of the world.

At the equator the temperature averages about 80 degrees throughout the year. Consequently the lower air flows in from regions of high pressure on each side, forming what are known as the trades. These winds cover nearly one-half of the earth's surface and blow with much steadiness the year round.

The monsoons, or "seasonal winds," of India and the Indian ocean are the most interesting of their class. In summer the cooler ocean air pushes in toward the land, while the warmer air over the continents rises to a considerable height and then flows out to sea, forming a systematic circulation between ocean and continent. In winter the ocean is warmer than the continent, and the winds reverse their direction.

The "land and sea breezes" occur with much regularity near large bodies of water in some parts of the world. The ocean is cooler than the land during the day and warmer at night, causing on a small scale a daily interchange of air similar to that caused by the monsoons.

A clear knowledge of the term "air pressure" is very helpful in studying the causes of wind. Air, like a stone, presses against the ground—in other words, it has weight, amounting to no less than 2,117 pounds upon every square foot of the earth's surface at sea level—but, unlike a stone, the atmosphere is elastic to a high degree and also presses in all other directions.

On account of this elasticity of the air, certain forces which arise from differences in temperature and the earth's rotation cause it to become dense or heavy in some regions and rare or light in other regions.

It is the effort of the atmosphere to overcome these pressure differences and resume a state of equal density that causes the winds to blow.

The column of mercury in a barometer tube is always just balancing a column of air of the same diameter, reaching from the barometer to the top of the atmosphere. If the air is dense the mercury will of course stand high in the tube, and to express this condition we use the term "high pressure," but if the air is rare the mercury will stand low in the tube, and we then use the term "low pressure."

Over the United States, Canada and other parts of the world the pressure is ascertained each day at numerous stations. The barometer readings, expressed in inches of mercury, are telegraphed to a central point and there charted on a map. The exact regions where the pressure is high or low may then be seen at a glance. It has been learned from such observations that these areas are constantly moving eastward at an average rate of about 600 miles per day.

Technically the low pressure areas are called "cyclones" and the high pressure areas "anticyclones." They are frequently 1,000 or more miles in diameter. The little storms of great destructive force so often called cyclones are really tornadoes.

The higher the pressure in any particular region relative to some other region the greater will be the velocity of the wind. The winds blow much faster in winter than in summer, because the greater contrasts of temperature cause more decided differences in pressure.

Observations demonstrate, however, that the wind never blows in straight lines, because all bodies of air when in motion are acted upon by a law of nature called the "deflecting force of the earth's rotation." This force turns all wind to the right of its course in the northern hemisphere and to the left in the southern.

Thus if a wind in our hemisphere starts north it is soon turned slowly toward the northeast, or if it starts west it will soon turn toward the northwest. When it is remembered that at the equator the earth is rotating at the enormous velocity of 1,035 miles an hour, one will not wonder that such a deflecting force could exist. All areas of high and low pressure, from whatever cause, therefore become whirling masses of air, and a little thought will show that they must turn in opposite directions. In the northern hemisphere the low areas, or "lows," as they are designated on the weather map, always rotate in a direction contrary to that of the hands of a watch.—Youth's Companion.

ANCIENT ATHENS.

Banqueting In the Grecian City In the Time of Plato.

In Professor T. G. Tucker's "Life In Ancient Athens" the author gives this as a picture of a typical banquet in that city in the time of Plato: "When all are in place the servants come round with a vessel, from which they pour water over the hands of the guests. There are brought in small tables, light and ornamental, one of which is set down before each couch for two persons, and on these are placed the several dishes as they come in order. The tables are lower than the couches, so that the right hand can reach down easily to them. Knives and forks there are none. The food is taken up with the fingers. It is true that in dealing with very soft foods or gravies or in extracting things from shells spoons were not unknown, but usually the fingers were assisted by pieces of bread hollowed out for the purpose. It is clear that there was plenty of room for neatness and daintiness in handling food, and it was no small advantage to have fingers not too sensitive.

"There were no napkins. Portions of soft bread, often especially prepared for the purpose, were used for wiping the fingers and were afterward thrown to the dogs which might be present to catch them; but, apart from the dogs, it may be something of a shock to learn that the floor, which was, of course, without a carpet, was the receptacle for shells, bones, peelings and other fragments, which were, however, swept out at a given stage of the proceedings. Conversation meanwhile must be general. The first half of dinner consists of substantials, particularly fish and birds, eels (if they could be got), comparatively little meat (such as beef, lamb and pork) and vegetables dressed to a degree of which we should hardly approve with oil, vinegar, honey and sauces.

"During this part of the meal wine is not drunk. The Athenians kept their drinking as separate as possible from their eating. Water is then brought round again, hands are washed, the tables are carried out, the floor is swept, a chant is sung to the accompaniment of the flutes, a libation of wine is poured out to the words 'to the good genius' or 'to good health,' and the second part of the banquet begins. The tables are brought in again, and what we call dessert was for this reason called by the Athenians 'the second table.' On these are placed fruits, fresh and dried; salted almonds, sweetmeats, cheese and salt."

THE HOME DOCTOR.

To cure nose bleeding, tie a string very tightly around the small part of the thumb below the knuckle.

Half a teaspoonful of table salt dissolved in a half glassful of cold water will give instant relief in case of heartburn.

People with poor digestion should drink no water with meals, but take a glassful half an hour before and drink plentifully an hour or so after each meal.

To inhale steam from a bowl of boiling water is very good for a sore throat. The sufferer should lean over the steam, drawing it in both throat and nostrils.

Many cases of indigestion, headache, neuralgia, cold hands and feet can be quickly cured by drinking slowly one or two pints of water so hot that it almost burns the throat.

Warts may be entirely removed by washing the hands two or three times a day with the water in which potatoes have been boiled or by bathing the wart several times with potato water.

Where Do the Cents Go?

Nobody knows what becomes of the millions on millions of cents that are minted annually, the production varying from 25,000,000 to 90,000,000 per annum. They simply vanish from sight and are gone forever. The phenomenon seems strange and is not easily accounted for. People say, "What becomes of all the pins?" That is easily answered. Pins soon corrode, and thus are transformed into nothing that is recognizable. A copper cent, on the other hand, is indestructible, comparatively speaking. But the solution of the problem seems to be that cents are subject to more accidents than any other coins. They change hands ten times as often as dimes, for example, and, being of small value, they are not cared for.—Los Angeles Times.

A Brotherly Act.

Admiral Lord Charles Beresford commanded a naval brigade in the Sudan when the British forces were there. One day when the Arabs were making a terrific onrush the admiral's life was saved by a mule which fell dead upon him. When the square had been reformed and the Arabs were repulsed, Lord Charles was rescued. He looked at the mule for a moment and then remarked gratefully, "Now, that poor beast did what I should call a brotherly act."

A Sight.

"Do you know, I saw something remarkable just now," observed a broker to a friend in front of the Stock Exchange in Broad street.

"What was it?"

"I saw no fewer than five leading lawyers of the financial district walk past, and every one of them had his hands in his own pockets."—New York Tribune.

A Difficulty.

Mistress—Why don't you boil the eggs? Cook—Sure, I've no clock in the kitchen to go by! Mistress—Oh, yes; you have! Cook—What good is it? It's ten minutes fast.—Philadelphia Inquirer.

SOCIETIES OF KLAMATH FALLS

A. O. U. W.—Linkville Lodge No. 110 meets in the A. O. U. W. hall every Tuesday evening. Visiting Brothers always welcome. John Yaden, M. W. J. W. Siemens, Recorder.

Evangeline Lodge No. 88 Degree of Honor Lodge meets in the A. O. U. W. hall every second and fourth Thursdays in the month. Nancy N. White, C. of H. Jesse Marple, Recorder.

W. O. W. Ewauna Camp, No. 799, W. O. W., meets every Tuesday evening at 7:30 o'clock at Sanderson's hall. All neighbors cordially invited.
C. K. Brandenburg, Clerk.

A. F. & A. M.—Klamath Lodge No 77. Meets Saturday evening on or before the full moon of each month in the Masonic Hall. W. T. Shive, W. M. W. E. Bowdoin, Secretary.

O. E. S.—Aloha Chapter No. 61, meets in the Masonic hall every second and fourth Tuesday evenings in each month. Christine Murdoch, W. M. Jennie E. Reames, Secretary.

I. O. O. F.—Klamath Lodge No. 137 meets every Saturday evening in the A. O. U. W. hall. W. H. North, N. G. Geo. L. Humphrey, Secretary.

Ewauna Encampment No. 46, I. O. O. F. Encampment meets second and fourth Saturdays in the month in the A. O. U. W. hall. C. C. Brower, C. P. Geo. L. Humphrey, Scribe.

Prosperity Rebekah Lodge No. 104 I. O. O. F. meets in the A. O. U. W. hall every first and third Thursdays in the month. Francis E. Boyd, N. G. Frankie Hammond, Secretary.

K. of P.—Klamath Lodge No. 96 meets in Sanderson's hall every Monday evening. Bert Bamber, C. C. John Y. Tipton, K. of R. and S.

M. W. of A.—Lodge meets in the A. O. U. W. hall every first and third Wednesday in the month.
W. B. McLaughlin, Consul
W. A. Phelps, Clerk.

Foresters of America—Ewauna Camp, No. 61, meets in the A. O. U. W. hall every second and fourth Fridays in the month. C. D. Willson, C. R.
E. E. Jamison, Rec. Sec.

Women of Woodcraft, Ewauna Circle No. 647, meets every second and fourth Friday in Sanderson's hall.
Mrs. Dollie Virgil, G. N.

Fraternal Order of Eagles meets every Monday evening at 8 o'clock in A. O. U. W. Hall. Henry Boivin, W. P., Otto Heidrich, Sec.