represented the second stage when the vapor particles must condense on themselves only, which process required a greater cooling and a greater expansion.

MEXICAN CLIMATOLOGICAL DATA.

In order to extend the isobars and isotherms southward so that the students of weather, climate and storms in the United States may properly appreciate the influence of the conditions that prevail over Mexico the Editor has translated the following tables from the current numbers of the Boletin Mensual as published by the Central Meteorological Observatory of Mexico. The data there given in metric measures have been converted into English measures. The barometric means are as given by mercurial barometers under the influence of local gravity, and therefore need reductions to standard gravity, depending upon both latitude and altitude; the influence of the latter is rather uncertain, but that of the former is well known. For the sake of conformity with the other data published in this REVIEW these corrections for local gravity have not been applied.

Mexican data for August, 1896.

Stations.	Altitude.	Mean barometer.	Mean temperature.	Relative humidity.	Precipitation.	Prevailing direction.	
						Wind.	Cloud.
	Feet.	*Inch.*	° *F.*	%	*Inch.*		
Colima (Seminario)	1,291.7	28.30	80.1	73	6.54	sw.	
Colima	112.2	.....	80.6	.....	.....	.....	
Guadalajara (Obs. d. Est.)	5,188.0	25.03	69.6	89	14.92	.....	e.
Guanajuato	6,761.3	23.74	67.8	53	3.76	ene.	ne.
Jalapa	4,757.3	25.61	68.0	87	8.02	n.	
Lagos (Liceo Guerra)	6,274.5	24.20	69.1	58	2.49	ne.	ne.
Leon	5,901.0	24.35	70.0	54	1.81	se.	e., ene.
Magdalena (Sonora)	.....	.....	82.6	.....	19.57	s.	
Mazatlan	24.6	29.91	84.7	77	3.38	nw.	ne.
Merida	50.2	29.97	81.1	78	7.83	ne.	e.
Mexico (Obs. Cent.)	7,488.7	23.12	63.0	65	2.56	nw.	ne.
Mexico (E. N. de S.)	7,480.5	23.11	63.1	65	2.56	.....	
Morelia (Seminario)	6,401.0	24.01	62.8	72	4.71	ssw.	e.
Oaxaca	5,164.4	25.11	73.0	61	2.39	nw.	ne.
Pabellon	6,312.4	.....	.....	.....	.....	.....	
Pachuca	7,956.3	22.59	57.9	66	0.27	ne.	ne.
Puebla (Col. Cat.)	7,112.0	23.43	67.1	55	2.29	.....	
Queretaro	6,069.7	24.23	68.5	62	2.00	e.	e.
Saltillo (Col. S. Juan)	5,376.7	.....	.....	.....	.....	.....	
San Luis Potosi	6,201.9	24.22	69.4	62	T.	ne.	e.
Silao	6,063.1	24.31	71.6	68	2.64	ne.	ne.
Tacubaya (Obs. Nac.)	7,620.2	.....	.....	.....	.....	.....	
Toluca	8,612.4	21.96	59.0	67	3.00	se.	e.
Trejo (Hac. Silao, Gto.)	.....	.....	.....	.....	3.20	.....	
Zacatecas	8,015.2	22.67	65.7	60	1.59	e.	e.
Zapotlan (Seminario)	5,124.8	25.11	70.7	.....	7.14	n.	n.e

UNRELIABLE POPULAR WEATHER PROVERBS.

Many persons still fail to realize the fact that the weather proverbs which pass down from generation to generation as unquestioned as are the nursery stories, belong to what may be properly called mythology. Like the myths and legends of ancient times they may, possibly, have had some slight basis of fact; they may possibly have applied satisfactorily to some far off period and some far distant land, or to one special occasion, but do not, necessarily, hold good to-day and in our own country. At a recent meeting of the Meteorological Society of France the members discussed the popular proverb: "When it rains on St. Medard's day it will rain for forty days unless fine weather returns on the day of St. Bernabe." M. Teisserenc de Bort showed that M. Lancaster, who, several years ago examined this question, found no results tending to verify this saying. M. Teisserenc de Bort has also studied the question as to whether it was possible to predict in advance a rainy period; thus in examining the data collected from 1863 to 1896, he finds that in the first days of June the rain is, on the average, a little more abundant, and diminishes toward the end of that month. But it was not observed that there was any systematic grouping of the days of rain around the day of St. Medard.

M. Renou said that M. Elie de Beaumont has called attention to the fact that the proverb relative to St. Medard dates from the middle ages, and that since then the order of the saint's days in the calendar has been changed, and that now the day of St. Gervais is the one to which the proverb should be applied. M. de Beaumont, therefore, examined the question of the grouping of days of rain according to the new date but did not find any verification of the proverb.

THE EFFECT OF SHADING THE SOIL.

According to Lancaster (*Ciel et Terre*, March, 1896, XVII, p. 22), some experiments have been made by A. Buehler, which may be summarized as follows: Four broad plats of ground were selected, situated near each other; one was left freely exposed to the sun and wind while the three others were shaded by horizontal wooden trellises placed around each plat and about 40 centimeters above the ground. The sunlight was cut off from the ground by the shadow of the trellis to a different extent for each plat, viz, one-quarter for plat No. 2, one-half for No. 3, and three-quarters for No. 4. In each plat, at 5 centimeters below the soil, a thermometer was buried; there was also placed in each plat an evaporometer and a vase of sheet iron filled with clay in which 1,000 grams of water had been poured. Observations were taken every three hours, with the following results: The shaded soil experienced less cooling by radiation at nighttime and less warming by sunshine in the daytime. The plat, No. 4, three-fourths of whose area was shaded, showed a temperature 10 per cent lower than the unshaded plat, No. 1; the lowering of temperature was most decided at noon and 3 p. m. As to the nocturnal cooling, the differences between the various plats were only 2° C. at the maximum, which explains why plants under a trellis are less exposed to frost than plants that are not thus protected. During rainy weather the differences in temperature were very small, rarely more than 1° C.; the shaded plats had a temperature a little higher than the unshaded, but during dry weather the shaded plats were warmed up more slowly. The relative evaporation from the plats was as follows: No. 1, unprotected, 100 per cent; No. 2, one-quarter covered, 88 per cent; No. 3, one-half covered, 71 per cent; No. 4, three-quarters covered, 62 per cent. Evaporation was most rapid from noon to 3 p. m. The observations all relate to a soil that is not covered with vegetation. If the soil had been cultivated the temperature and the evaporation would have been diminished still more.

A PRIZE FOR KITE FLYERS.

Owing to his great interest in everything bearing on aeronautics, Mr. Octave Chanute, of Chicago, recently authorized the Boston Aeronautical Society to invite competition for a special prize for the best monograph on the kite, giving a full theory of its mechanics and stability, with quantitative computations appended; the prize to be awarded by judges appointed by the Society. It was originally intended that the competition for this prize should close on November 15, 1896, but by a recent circular of November 23 we learn that the date has been postponed to January 1, 1897. Doubtless many of our readers will have interested themselves in kite flying for scientific purposes sufficiently to have, at least, thought of competing for this prize. The kite promises to become a very important factor in the exploration of the atmosphere and we shall all look forward with interest to the publication of that prize essay.

About 1880 the Editor found a lad in Washington who had kept his kite in the air continuously for the greater part of two days and could have kept it there for a week longer. Up to that time the Editor had used and thought of the kite only as a means of getting occasional records of the condition of the upper currents, but ever since that date he has