

On Tuesday night between 2 and 4 a. m., that is to say, Wednesday, June 23, many people were awakened about 2 a. m. by the extraordinary heat of the air, it being so intense that many thought their houses to be on fire; those who noticed the direction in which the hot wave was moving say it came from the southwest to the northeast and then came back from the northeast to the southwest. A pleasant cool breeze from the north had been blowing up to 1 a. m. that night and it commenced again to blow about 5 a. m.

The 8 a. m. weather map of the 23d shows mostly southerly winds, clear sky, and falling barometer in Kansas; so that a local northerly wind at Larned would imply a local topsyturvy movement such as would characterize a streak of hot winds extending from Kinsley to Larned.

BRIGHT METEOR.

A bright meteor passed over Augusta, Kans., on June 20, about 10:45 p. m. (probably central time) traveling due west. Two or three minutes after passing over there was a loud explosion like a heavy clap of thunder. The color of the meteor was bright blue.

In addition to the preceding report received directly from the postmaster at Augusta (long. 96° 57' W., lat. 37° 40' N.) there have been received newspaper reports from other stations, as follows:

Eldorado, Kans. (N. 37° 44', W. 97° 50')—Path from west to east; principal meteor followed by a number of smaller lights; heavy explosive noise from two to four minutes after the meteor disappeared.

Wichita, Kans. (N. 37° 40', W. 97° 20')—Appeared at 10:50 in the southeast at an altitude of about 60°; path toward the northwest where it disappeared on the horizon like a bright glowing coal, passing near the zenith; two minutes afterwards there was a sharp heavy report that died away in a low rumbling sound. Persons living 17 miles to the northwest (lat. 37° 50', long. 97° 33') saw it fall.

Winfield, Kans. (N. 37° 15', W. 96° 58')—Brilliant meteor athwart the sky about 11 p. m., followed by a rumbling noise.

Hutchinson, Kans. (N. 38° 3', W. 97° 56')—Meteor of great brilliancy at 10.45. Apparent path from east to west.

Emporia, Kans. (N. 38° 53', W. 96° 8')—Enormous meteor passed over the city about 11 p. m., disappearing in the southwest.

Ardmore, Ind. T. (N. 34°, 10', W. 97°, 5')—Just before 11 p. m. a large meteor appeared in the northeast and apparently struck the earth

in the northwest; it appeared as large as the moon and gave a light almost equal to that of day.

From these few reports, elementary as they are, we can only conclude that the meteor must have been moving nearly east and west when first seen. It must have been at least 5 miles above the surface of the earth since it was visible from Ardmore, which is about 210 miles south of the vertical plane through its path. But the record at Ardmore shows that it appeared to pass from northeast to northwest, and, if this is strictly true then its path must have been from the northeast toward Kansas, where it turned westward and eventually northwestward and its height above the ground, when passing over the stations in Kansas, must have been at least 30 or 40 miles. If numerous other and more accurate observations can be secured, it will be worth while for those interested in meteors to compute more accurately the path of this body. In general, of course, we know that a myriad of such masses, large and small, are moving swiftly through the space between the earth and the surrounding stars, and we see only those that for a few seconds pass into our own atmosphere. To the meteorologist these objects have considerable interest, as they reveal the presence of a considerable quantity of air at the height of 50 miles above the earth, where the barometric pressure would be less than 0.001 of an inch, and would, therefore, be called inappreciable in our ordinary terrestrial meteorology. Notwithstanding the thinness of the atmosphere at this elevation, we see that an immense noise can be produced in it and propagated through it. The violence of the atmospheric concussion is, in fact, inconceivable; if we try to reproduce it by the mechanical production of sound inside of a vessel from which the air has been exhausted, we shall find it impossible to do so. The intensity of a sound as it passes from a lighter to a denser medium experiences an apparent diminution. As our lower atmosphere is more than thirty thousand times as dense as that in which the meteor made its tremendous noise, so the latter must have been thirty thousand times as intense as the noise of the explosion heard by the observers in Kansas.

METEOROLOGICAL TABLES.

By A. J. HENRY, Chief of Division of Records and Meteorological Data.

For text descriptive of tables and charts see page 166 of REVIEW for April, 1897.