

of the homes of the following persons, whose buildings were destroyed or badly damaged:

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|--------------------|-----------------------|
| 1. Mary E. Myers. | 13. Schoolhouse. |
| 2. Joun Warvel. | 14. — Bloom. |
| 3. Jake Myers. | 15. E. Esterline. |
| 4. Chas. Wampler. | 16. A. J. Shafer. |
| 5. John Steck. | 17. H. Troutman. |
| 6. — Stoner. | 18. Ed. Kimmel. |
| 7. John Bowser. | 19. George Filbrum. |
| 8. Ezra Landis. | 20. G. Conover. |
| 9. Jacob Keener. | 21. J. Roop. |
| 10. Geo. Milliken. | 22. Philip Derringer. |
| 11. Joseph Harry. | 23. John Ater. |
| 12. Ora Keener. | 24. Ira Denlinger. |

Second storm.—The storm that passed near Johnsville and New Lebanon (II, fig. 1) was less destructive and its path was only about 3 miles long. The funnel-shaped cloud was observed here also, and there is much other evidence of whirling motion.

UNUSUAL HAILSTORM AT BALLINGER, TEX.¹

[From notes of E. M. EUBANK, Cotton Region and River Observer at Ballinger, Tex.]

A terrific thunderstorm, accompanied by heavy rain and hail, occurred in the vicinity of Ballinger from 1 to 2:30 a. m., March 16, 1917. It came from the northwest and after passing a short distance west of the observer appeared to split, one part moving to the south and the other to the southeast. About 3 miles south of Ballinger the rainfall was torrential and the hail terrific, with constant electrical display. The water came off the hills in floods and converted small streams into raging torrents, washing away fences and piling the hail in drifts along fences and in places where débris had found lodgment. One such drift of [water borne] hail covered about 2 acres of ground to a depth of 3 feet. On March 20 the hail was still 1 foot deep in drifts, and the last of the hail did not disappear until March 23, the seventh day after the storm. The total amount of precipitation at Ballinger was 1.10 inches, but the drifts must have been of extraordinary depths to persist so long in face of such temperatures and character of the day as are given in the following table for the period that hail remained on the ground.

Date.	Maximum temperature.	Minimum temperature.	Character of day.
1917.			
Mar. 16.....	°F. 72	°F. 45	Clear.
17.....	77	32	Do.
18.....	72	30	Do.
19.....	78	39	Partly cloudy.
20.....	88	47	Do.
21.....	85	49	Clear.
22.....	89	52	Partly cloudy.
23.....	82	46	Do.

¹ Communicated by B. Bunnemeyer, meteorologist, Houston, Tex.

The storm caused but little damage only because there were no crops in the ground.

SEVERE LOCAL STORM AT SAN DIEGO, CAL., FEBRUARY, 1917.

A storm of considerable energy, resembling a small tornado in many ways, visited a limited area in the northern part of San Diego at 8:20 a. m., February 17, 1917. While the storm in itself was not of unusual severity, it is the first storm of similar characteristics having occurred in that section of which there is a record, the vicinity being almost free from destructive winds of any nature. The storm was accompanied by heavy rain and hail and moved from southwest to northeast; its path but a few feet in width and about one-half mile in length, with points of destruction centered at four places separated from each other by 500 to 2,000 feet. The damage consisted in a number of roofs being blown off or wrecked. No one was injured.

WINTER OF 1916-17 AT GREENWICH, ENGLAND.

[Reprinted from *Nature*, London, Mar. 22, 1917, 99: 71.]

A good representation of the weather for London is obtained from the Greenwich meteorological observations, and these also show generally the weather conditions over England. The long series of observations affords a trustworthy comparison with past years. Observations for the past winter, December to February, are taken from the results published in the daily weather reports of the Meteorological Office.

The mean temperature for each of the three months was below the average, the greatest deficiency being 4.5°F. in February, and the mean for the whole winter was 3.4 degrees below the normal. The mean winter temperature, 35.9°, was 7 degrees colder than the winter of 1915-16 and was the coldest winter since 1894-95, when the mean was 35.1°, while the lowest in the last 75 years was 34.3° in 1890-91. Frost occurred in the shade on 52 nights during the three months, the occurrences being 18, 19, and 15, respectively [i. e., minima of].

Frost also occurred during the latter half of November, and it is occurring occasionally during the present month. The aggregate rainfall was less than the normal; the total measurement was 4.49 inches, which is 86 per cent of the average fall for the last 60 years. December was the only month with an excess of rain, and in all there were 48 days with rain. The duration of bright sunshine was 63 per cent of the average, and there were 48 sunless days in the three months comprising 90 days in all.