

from within, carrying the walls outward, were observed during the storm and were reported. During the comparatively short time of passage it killed 11 persons and injured 30 or 40 others and damaged property estimated in value at \$150,000 to \$200,000. The path of the storm extended nearly from west to east, with a slight northeasterly trend and varied in width from a few feet up to a half mile, although the path of greatest destruction averaged only 100 yards in width and varied as the tornado cloud rose and fell during its progress. The length of the path at this point could not be fixed definitely but from the data available it was estimated at 8 miles.

This storm appeared again at 6 p. m. in Madison County, about 125 miles east of the point of its first appearance in Indiana. The direction of progress, the sequence in time, and the characteristic of these storms in skipping stretches of country in their progress point to the conclusion that this was the same storm which appeared earlier, although such material evidence as was present in the incident described below was lacking in this instance. The path extended from Orestes, Madison County, to Wheeling, Delaware County, a distance of 25 miles to the northeast, and averaged about one-half mile in width. The storm was observed also at Alexandria and near Summitville, and after passing Wheeling it seemed to widen out and became rather a general wind storm. The diameter of the tornado cloud was estimated by observers at 100 yards, but probably was less than this near the ground. Three persons lost their lives, about 25 others were injured, and property was damaged to the extent of \$100,000 to \$150,000 in the progress of the storm across this section of the State.

The following item appeared in *Indiana Daily Times* of April 24, 1922, and the facts were afterwards verified by correspondence with the postmaster at Orestes, Ind. It is submitted as an interesting phenomenon in connection with the study of this storm. Mount Cory, Ohio, is 124 miles from Orestes, Ind., according to the mileage along the Lake Erie & Western Railroad, and lies in a somewhat northeasterly direction.

When the home of Mrs. Bessie Porter in Orestes was destroyed by a tornado, Monday night, April 17, a picture post card was picked up from the ruins and carried with the tornado. The post card has been returned to the postmaster at Orestes, coming in a letter from J. O. Kistle, of Mount Cory, Ohio. In the letter Mr. Kistle stated a tornado struck a short distance south of his home on the morning of April 18 and he found the card lying on the ground while on his way to work. The card, which showed a view of Hartford City, Ind., was torn at one corner, but otherwise was in good condition. Mrs. Porter said that it was one of several that she had in an album at her home.

Other storms, violent in character, also occurred at Corydon, Jasper, and near Stinnesville on this date, but judging from all available reports were not true tornadoes.

#### IN OHIO.

By W. H. ALEXANDER, Meteorologist.

Apparently the first of these local storms to assume tornadic form and force occurred on the afternoon of the 10th and seemed to start at or near Riverside (formerly Harshmanville),  $3\frac{1}{2}$  miles northeast of Dayton, and moved in a northeasterly course, touching the extreme northwest corner of Greene County, crossing Clark County, into and perhaps across Champaign County, finally dissipating either in Union or Delaware County. This storm seems to have been a real tornado, as quite a number of persons report seeing the "funnel-shaped cloud," and the destruction wrought indicates a storm of this kind.

Mr. W. J. Moxom, official in charge of the Weather Bureau office, Dayton, Ohio, makes this observation:

I observed a very peculiar cloud passing over Dayton just a few minutes before the time of destruction at Harshmanville. This cloud was

very black in parts and gray in others and was at an elevation of approximately 1,000 feet. It was moving very fast and rolling violently. I am inclined to believe this was the cloud that developed into a tornado immediately after passing over Dayton to the higher ground northeast of the city.

Mr. Moxom also furnished the following account of this tornado by an eyewitness, Mr. Charles E. Semler, 1204 U. B. Building, Dayton, Ohio.

I was driving in my machine from Fairfield to Dayton along the Dayton-Springfield pike on April 10, and about 4.45 p. m., just after leaving Fairfield, I noticed a very peculiar shaped cloud in the southwest. This cloud was approaching very rapidly and was very black. At very short intervals it would reach to the ground and when touching the ground had the regular funnel shape. I stopped my machine in order to avoid being in its path and it crossed the pike about one-half mile from where I was stopped. There was not much roar that I noticed, but it was whirling violently, and I noticed some few parts of debris in the upper outskirts of the cloud. I went over the scene of destruction the next morning. On the John Mays farm it destroyed a large barn and unroofed the large brick residence. On the Will Mays farm, about one-eighth mile to the northeast, it unroofed the barn and frame dwelling house. There was some damage on the Gross farm.

In the woods on the Miami Conservancy land south of the pike the storm cut a path about 150 feet wide through the timber, uprooting some trees and breaking other large trees off several feet from the ground.

Other and very reliable details concerning this tornado may be found in newspaper clippings, from which it appears that one person was killed by the collapsing of a barn, another by lightning, quite a number were more or less seriously injured, and property variously estimated from \$100,000 to \$200,000 destroyed.

Another tornado occurred during the evening (about 8 o'clock of the 17th) in the northwestern part of Auglaize County, doing its greatest damage apparently in the vicinity of Buckland. This storm seems to have originated in Noble Township, moved northeast, and dying out in the vicinity of Hume, in the southern edge of Allen County. While no human life was lost so far as known, a number of people were injured and very considerable property was destroyed.

A comparison of the daily weather maps of the 7th, 10th, and 17th reveals a very striking similarity in the pressure distribution that seems to have brought about these stormy days in Ohio. On each day there was a barometric trough extending from the Lake Region southwestward to Texas or the upper Rio Grande Valley; in two cases, the 7th and 17th, the major center was in the northern end of the trough and on the 11th in the southern end.

#### IN ALABAMA, MARCH, 1922 (DELAYED REPORTS).

[Abstracted from a report by P. H. SMYTH, Meteorologist.]

Two small tornadoes were observed in Cullman County, Ala., both of which traversed almost identical paths for a short distance. The first occurred on March 14 in the evening; it was lacking in violence and quickly dissipated. The second was a more fully developed storm; its path can be traced from Crane Hill, 15 miles southwest of Cullman, to that town, thence northeastward, crossing Morgan County and probably passing into Madison County. Three persons injured, no lives lost, property loss \$100,000.

A third tornado was observed at Salem, Lee County, about dark March 19. It moved thence eastward, increasing in violence, and, passing over the small village of Wacoche Valley, demolished a church, store, and three dwellings. At Goat Rock, east of Salem, a transmission tower was blown down and two persons were killed. The path of greatest destruction was about 200 yards wide in places; there was some hail, not much rain, and vivid lightning.