

From "The Ocean of Air"

Blumstock, Rutgers University Press, 1959, pp 89-90

"On the afternoon of June 22, 1928, between three and four o'clock, I noticed an umbrella-shaped cloud in the west and southwest and from its appearance suspected there was a tornado in it. The air had that peculiar oppressiveness which nearly always precedes the coming of a tornado.

I saw at once my suspicions were correct. Hanging from the greenish black base of the cloud were three tornadoes. One was perilously near and apparently headed directly for my place....

Two of the tornadoes were some distance away and looked like great ropes dangling from the parent cloud, but the one nearest was shaped more like a funnel, with ragged clouds surrounding it. It appeared larger than the others and occupied the central position, with great cumulus clouds over it.

Steadily the cloud came on, the end gradually rising above the ground. I probably stood there only a few seconds, but was so impressed with the sight it seemed like a long time. At last the great shaggy end of the funnel hung directly overhead. Everything was still as death. There was a strong, gassy odor, and it seemed as though I could not breathe. There was a screaming, hissing sound coming directly from the end of the funnel. I looked up, and to my astonishment I saw right into the heart of the tornado. There was a circular opening in the center of the funnel, about fifty to one hundred feet in diameter and extending straight upward for a distance of at least half a mile, as best I could judge under the circumstances. The walls of this opening were rotating clouds and the whole was brilliantly lighted with constant flashes of lightning which zig-zagged from side to side....

Around the rim of the great vortex small tornadoes were constantly forming and breaking away. These looked like tails as they writhed their way around the funnel. It was these that made the hissing sound. I noticed the rotation of the great whirl was anticlockwise, but some of the small twisters rotated clockwise.... The tornado was not traveling at a great speed. I had plenty of time to get a good view of the whole thing, inside and out."

Staniel

*From the "Ocean of the Air"
Blumenbach, Rutgers
University Press 1959
P 89-90 -*

Winds of the Land

89

quilt fastened to the sky by hundreds of invisible pins between which the quilt droops downward in loose, sharply curved folds. From out of such a sky or from a sky of jumbled cloud, the tornado descends. Few persons have tarried to observe an oncoming tornado closely. Among those who have, and who lived to relate what he saw, was Will Keller, a farmer living near Greensburg, Kansas. Except for the fact that tornadoes often occur singly rather than in twos or threes and that they sometimes do not contain lightning, his account is descriptive of a typical tornado:

*Related By Will Keller
Greensburg, Kansas*

On the afternoon of June 22, 1928, between three and four o'clock, I noticed an umbrella-shaped cloud in the west and southwest and from its appearance suspected there was a tornado in it. The air had that peculiar oppressiveness which nearly always precedes the coming of a tornado.

I saw at once my suspicions were correct. Hanging from the greenish black base of the cloud were three tornadoes. One was perilously near and apparently headed directly for my place. . . .

Two of the tornadoes were some distance away and looked like great ropes dangling from the parent cloud, but the one nearest was shaped more like a funnel, with ragged clouds surrounding it. It appeared larger than the others and occupied the central position, with great cumulus clouds over it.

Steadily the cloud came on, the end gradually rising above the ground. I probably stood there only a few seconds, but was so impressed with the sight it seemed like a long time. At last the great shaggy end of the funnel hung directly overhead. Everything was still as death. There was a strong, gassy odor, and it seemed as though I could not breathe. There was a screaming, hissing sound coming directly from the end of the funnel. I looked up, and to my astonishment I saw right into the heart of the tornado. There was a circular opening in the center of the funnel, about fifty to one hundred feet in diameter and extending straight upward for a distance of at least half a mile, as best I could judge under the circumstances. The walls of this opening were rotating clouds and the whole was brilliantly lighted with constant flashes of lightning which zig-zagged from side to side. . . .

Around the rim of the great vortex small tornadoes were constantly forming and breaking away. These looked like tails as they writhed their way around the funnel. It was these that made the hissing sound. I noticed the rotation of the great whirl was anticlockwise, but some of the small twisters rotated clockwise. . . . The tornado was not

traveling at a great speed. I had plenty of time to get a good view of the whole thing, inside and out.

The funnel-shaped tornado cloud moves forward steadily in its upper part at a speed of from 5 to 60 m.p.h. But below, the cloud weaves back and forth, a cone-shaped monster of destruction that swings from side to side along a winding path. Sometimes the whirling cloud withdraws upward so that it touches the ground only along a path a few yards wide. Sometimes it burrows downward to cut a twisting swath a thousand yards or more in width. Or else it may bob along the ground, touching the earth just long enough to pulverize a farmhouse, skipping across a barn twenty yards away, hitting a chicken house ten yards beyond. Where the tornado crosses an open field, it may rip the grass from the ground, yank out fence posts, and pluck out occasional trees, roots and all. Where it crosses a stream or lake, it sucks up water. Where it crosses a snowfield, it suddenly turns pure white.

The giant hurricane causes greater destruction; but acre for acre and square yard for square yard, no natural agent of destruction can match the tornado. The scene of its most awesome devastation is the city, whose terrain, densely packed with houses and other buildings, is sure to yield a terrible harvest wherever the tornado strikes. Statistics for a few cases tell part of the story: 317 killed in the Natchez tornado of 1840; \$12 million damage and 306 dead in St. Louis in 1896; on May 26, 1917, 101 dead in Mattoon, Illinois; almost 2,000 injured and 689 killed in the worst tornado on record in the United States, the tristate tornado that hit several towns in Missouri, Illinois, and Indiana on the 18th of March, 1925; and much more recently, in 1959, the tornado that killed 21 and injured 300 in St. Louis. When deaths are calculated on a square-mile basis, the power of the tornado becomes even more evident. The path of the St. Louis tornado of 1896 covered less than two square miles. The death toll was almost 200 per square mile.

The aftermath of the tornado is a hodgepodge of broken houses and houses without a blemish, of stacks of jagged debris and of areas free even of minor rubble. Fire, earthquake, volcanoes, and flood all decimate large, continuous areas. The tornado is so erratic in its effects that if the areas of destruction are entered in black ink on a large map representing a few square blocks of a city, the resulting pattern makes