

## FACTS ABOUT LAST YEARS' FLOODS

### Geological Survey Department Makes a Study of The Subject.

The year 1903 had perhaps more than its fair share of natural calamity—of flood, and fire, and famine. In the United States, during May and June there were three notable floods, which caused serious loss of life and great destruction of property—one in Oregon, one in South Carolina, and one in Kansas. A recent publication of the United States Geological Survey, scheduled as Water Supply and Irrigation Paper No. 96, contains a discussion of the various phenomena connected with these floods and suggest means for minimizing the destructiveness of future deluges. The author of the paper is Mr. E. C. Murphy.

The flood of shortest duration occurred on Willow Creek, Morrow county, Oregon, Sunday evening, June 14 1903. It was the result of what is popularly called a cloudburst, a heavy rain storm of short duration covering a very small area and peculiar to arid regions. The flood that rose as the result of the heavy downpour of rain lasted less than an hour, but in that short space of time one section of Heppner, a town with a population of about 1,400, was swept entirely away, a quarter million dollars worth of property was destroyed, and more than 200 people were drowned. The great loss of life was partly due to the peculiar construction of the houses in Heppner. Nearly all these houses were built on posts of wood or stone, from which the flood lifted them and carried them away to be dashed to pieces against trees and other obstructions.

The South Carolina flood occurred on June 6, 1903, and continued for nearly 24 hours. In that time there was a rainfall of from 3½ to 5 inches over an area of about 2,500 square miles to the southern slope of the Blue Ridge Salluda mountains, including parts of Cherokee, Spartanburg, and Pickens counties in South Carolina, and Rutherford, Polk, and Henderson counties in North Carolina. This area is drained by three small tributaries of Broad river, known as the Pacolet, Tiger, and Enoree. The principal damage wrought by the flood was on the Pacolet, where numerous cotton mills were ruined and much railway property was destroyed.

The Kansas flood occurred during the last week of May and the first week of June. It affected a much larger area than either the Heppner or South Carolina flood and was due to a storm that lasted nearly a week.

The United States Geological Survey has fortunately six gaging stations in the watershed of the Kansas river and has, therefore, a comprehensive record of the surface fluctuations of the river and its principal tributaries during the flood. The records at Lawrence and Leavenworth, on the Kansas river, cover a period of 22 years. The estimated flow of the Kansas river on May 31 was 225,000 cubic feet

per second. In other words, if there had been a storage reservoir one acre in area and 7½ feet in depth in each section of the whole drainage area of the Kansas river, the water flowing in the river on May 31 was sufficient to have more than filled all of them. The whole river bottom was flooded, crops were destroyed, stock was drowned, wooden buildings were lifted from their foundations and brick houses crumbled and fell, railroads were undermined, and bridges were swept away. Traffic in eastern Kansas was almost entirely suspended for two weeks. The property loss in Kansas and in Kansas City, Missouri, is estimated to have been no less than \$22,000,000.

Among the subjects considered in this paper are the effects of ground storage, of cultivation, and of forests in reducing the magnitude of floods. The effect on streams of dams, of bridge piers, and abutments is discussed; also the danger of building out into streams, thus narrowing the waterway and increasing the magnitude of floods. The relief afforded by straightening the channel is mentioned and the use of levees is explained.

## WILL PROBABLY INVEST HERE

J. A. Simpson, a prominent liveryman of Salem, was here between trains today with his old friend, Sheriff Harvey K. Brown, who is here on official business.

Mr. Simpson is looking for a new location. It is his purpose to quit the livery business and engage in some other line. He would prefer the furniture business or some mercantile pursuit. This is his first trip to Sumpter. He likes it. This is the way he talks:

"Salem is an old settled community. There are substantial interests there, but things go too slow to suit me. Sumpter people are kicking about times being quiet, but they seem lively. People are on the jump and everything seems brisk to me. You evidently have people who have the stuff in them to make business. Mossbacks certainly do not inhabit your town, and this is more than can be said of the average Oregon community. If I can strike a deal of any kind, it is more than probable I will locate here."

Mr. Simpson had an interview before leaving with the Case Furniture Company people with a view to buying in there. He prefers furniture if he can find an opening in this line.

## HERE TO LOOK AFTER HIS MINING PROPERTY

G. H. Wheeler, of Wheeler & Company, New York financial agents for various Sumpter district properties, arrived in the city this morning and will spend about a month investigating his interests.

Mr. Wheeler's firm is financing the Blue Bird, Buchhorn, Valley Queen and Black Butte. He will leave tomorrow for the Blue Bird and will make a systematic investigation of the development work being done at the various mines. These properties are regarded as among the coming dividend payers of the district, and are now in process of thorough development.

## RICH DIRT AT THE BROWN BEAR.

Jack Hazlewood came back Saturday from his Brown Bear placers on Eagle creek. The ditch on which work has been progressing for some time has been partially completed, and sluicing has been begun.

The ditch has been carried from the diggings to Brown Bear creek and this supply turned in. The intention, however, is to carry it to Dixie creek, a mile and a half further, and tap this supply also, which will furnish plenty of water for a long season. It will take about a month to complete the ditch. The water from Brown Bear, the present terminus of the ditch, however, will be sufficient to carry on operations till the Dixie creek is reached.

These placers show every evidence of extremely rich dirt. So far as prospected, Mr. Hazlewood says, the gravel will average over one dollar to the cubic yard.

## RANGE WAR IN CROOK COUNTY HAS STARTED.

The first depredation as a result of the conflicting territories occupied by the cattlemen and sheep owners in this county occurred last Monday, when 65 sheep belonging to Allie Jones were shot and killed on Mill creek by masked men, who threatened a greater slaughter if the band was not removed from that locality.

The killing happened on the west side of Mill creek, the herd of sheep being in charge of Tom Paine, who was surprised and unable to offer any resistance when the attack occurred.

This first outbreak against the sheep marks the first step in the range difficulties which are likely to be encountered during the coming season. The scene of the killing is in the district in which an effort was made a short time ago to establish lines. The territory was visited by a party of sheep owners from Antelope and it was believed that matters could be satisfactorily adjusted between them and the cattlemen in that part of the county. But nothing definite was decided upon and it is expected that the old lines will hold good this year.—Crook County Journal.

## SICKNESS OF FATHER WILL DELAY WORK.

L. V. Swiggett, who recently took over the Golden Chariot, in Bear gulch, through Dr. Brock, has been detained by the serious sickness of his father at Helena, Montana, and will probably not arrive here before the 4th or 5th of July.

It is stipulated in the terms of the contract that work on the property must begin July 1, but the necessary detention of Mr. Swiggett will probably delay operations for a few days only.

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