## An Inland Inundation

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Harrisburg, Illinois, is at the western extremity of a glacial lake bed which lies between that city and Shawneetown and in which flow the lower courses of the Saline River and its tributaries. This ancient lake bed is but little elevated above the normal stage of the Ohio.

The Saline River enters the Ohio a short distance below Shawneetown. Due to the extension of the Illinois Ozarks into Kentucky, the Ohio is confined to a narrow valley from the outlet of the Saline River to below Golconda. This "bottle neck" through the hills is part of the cause of grief to the up river inhabitants, since it slows up the current, causing the

water to pile up above.

The situation at Harrisburg is further complicated by an overflow from the Wabash River. When the Ohio is very high, the Wabash sends part of its water westward over low lands to the northwest of Shawneetown and into the Saline River valley. This increases the back water flow up the This situation caused Harrisburg to experience more than a foot of back water above the peak at Shawneetown. Fortunately for Harrisburg, little rain fell in Saline County during the flood period, that is, after the headwater preceding the main flood had receded. In other words, the Saline River is so far down the Ohio valley that the headwater from it had gone out before water from far up the Ohio had come down.

The main business and residence section of Harrisburg is on what was originally called "Crusoe's Island," and surrounded by swampy areas in the early days. Another island section lies to the southeast. Ridge lands are southwest and west. A considerable portion of the city is on the ridge south and west, being separated from the "island" only by lower ground which had never been flooded before, but which at its lowest point had water eight feet deep on February 3, 1937. It was over this flooded district that supplies, including food, water, and some fuel were transported by boats from the mainland to the "island" for more than two weeks. Goods of all kinds could be brought to the mainland from the west by trucks throughout the entire period. The Township High School on the mainland became a refuge camp and feeding depot conducted by the high school faculty. A grade school building on the same side of the water was used as official headquarters for handling incoming supplies, and as a port of embarkation for the "island".

The fertile level areas lying about the older and central portion of the city had become occupied by numerous residences as the city grew. These included many modern homes on paved streets. The pumping and filtering plants of the water works system, the gas supply plant, the railroad depot and extensive yards, and the shafts of three large coal mines lay within this area. One of these mines was flooded. The other two were

saved by sand bagging.

The 1913 flood had been serious over much of this low ground, but the citizens of Harrisburg at that time cared for all refugees without any outside help. Many homes were put on higher foundations following that record breaking inundation. It was unbelievable that any rise of water could exceed that one. So when warnings of still higher water came this year the people in the low ground scaffolded up their belongings or depended on the greater elevation of their homes to save them. When the water rose so that the danger could be seen, there were no places to take household goods, and trucks were not available or could not reach the houses then surrounded by water. The eight foot rise above the 1913 mark got up to the scaffolding; and pianos, dressers, etc. toppled over. City water lines had not been shut off. Some few houses floated and broke loose from water pipes. Others had water pipes frozen which burst so that it was difficult to resume operations of the water plant when the water was going down.

It was fortunate that no severe cold weather came. There was some ice but never enough to stop boats to the mainland. One stormy day when the water was the highest, strong winds set up high waves that did much damage to partially submerged fences and buildings in the country. The reaction from a wave crest burst out the sides of buildings and rows of shingles on roofs in exposed places so that the approximate water level on that day can be told by the missing siding or shingles. There was little current. Only small buildings, oil tanks, etc. floated, mostly with the wind. Many small buildings would have withstood the flood but were burst asunder by the waves.

With eleven stations above Cairo in the Ohio valley reporting an average of over seventeen inches of rain during the first twenty-five days of January, the flood can be attributed primarily to abnormal rainfall the recurrence of which may not happen again within the life time of those now living. There will, at Harrisburg, be a gradual shifting to higher ground which is available within and near the present city limits. Warnings will be heeded in the event of other floods so that losses of property can be greatly reduced.

It would be possible to build a levy across a narrow part of the Saline valley near the east edge of Saline county with gates in the river to permit head waters to get out at normal times and prevent the flow of back water, but the problem of pumping head water out, if such should come at a time of back water, presents a difficult engineering question. A levee could be built on the low grounds immediately outside of Harrisburg but the cost might be prohibitive when compared with the benefits to follow.