## HEADWATERS OF SALT CREEK IN PORTER COUNTY.

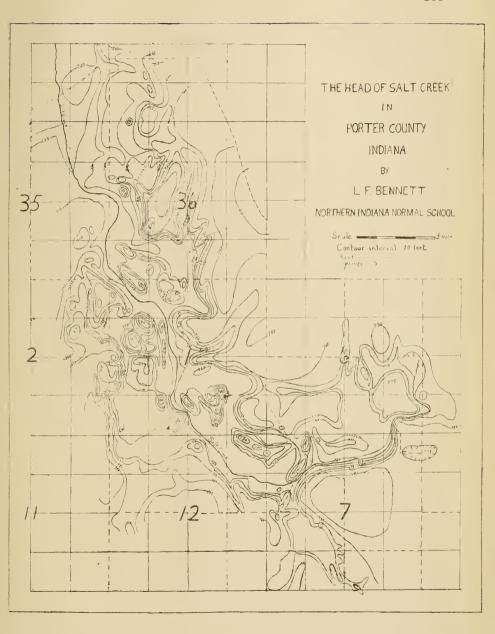
## BY L. F. BENNETT.

Salt Creek rises three miles southeast of the city of Valparaiso, in section 6, 35 north, 5 west. It flows southwest one mile, thence in a north-northwesterly direction, cutting through the crest of the Valparaiso Moraine, and empties into the Calumet River in section 31, 37 north, 6 west. This paper has to do with the first four miles of its course.

Like many creeks in a drift region, it pursues a winding course through a marsh varying in width from one hundred yards to nearly a mile; and unlike most creeks it has several islands situated in its marshy bottom near its headwaters. These islands have their longer axes parallel with the general direction of the creek in that locality. They are from ten to fifty feet higher than the surrounding marsh and are from fifty yards to one-fourth of a mile in length. There are also tongues of land extending, in a few instances, one-fourth mile from the higher land and are connected with the higher land by low necks. The banks of the marsh, as a rule, are quite steep, and rise from forty to eighty feet above the creek bed. The marsh has so little slope that with the present price of land, it is not worth draining. It is so wet and uneven in most places that it is worthless for pasture. In the southwest quarter of section seven, there is a tributary marsh about ten feet above the level of the main marsh, and about forty acres in extent. It is connected to the larger marsh by a narrow channel. The sides of the marsh are from ten to twenty feet high and rather abrupt. During the greater part of the year there is no water in the connecting channel.

The flat marshy creek bottom, with its islands, tongues of land and abruptly sloping banks, furnishes a marked exception to the nearly level topography of the region to the south and east, which slopes very gradually to the Kankakee River.

The islands, and without doubt, many at one time were really such, are the most interesting features. Some are as high as the adjacent land on the sides of the marsh from which they appear to be cut; many have been eroded until they are but little above the general level of the marsh, and others have been nearly cut into two parts by unequal erosion. They show every variety as to shape and height above the general level.



The origin of the creek and its various features is a very interesting problem. It probably began as an original depression in the moraine, and, as at present, was fed by springs, the action of which is very apparent all along the creek's upper course. The head of the creek is formed by a number of small springs issuing from a low bank, and at various places many large perennial springs are found.

In section 2 (see map), on the east side of the creek, the springs have eaten back the bank until a terrace has been formed. This terrace is ten feet above the marsh, is from ten to seventy-five yards in width, is one-fourth of a mile long and in all places is composed of soft wet ground, showing that water is still issuing from beneath. From the terrace the land abruptly rises ten to twenty feet to nearly level ground.

If the tongues of land with their low necks are to be considered as islands nearly cut off and are to explain the origin of the islands, then there must have been a time when the quantity of water was much greater than at present. If there was more water most of it must have come from springs, as there is no evidence of water action except in the creek bed, the land on all sides being high and nearly level. Again, if the springs were more numerons and carried more water than at present, other evidence of their presence than that given above has entirely disappeared.

The narrow necks appear to have been cut out by the recessions of springs on opposite sides toward each other and which have dried up with changing climatic conditions.

There is no way at present to tell how deep the creek bed has been, as there are no wells of which sections may be obtained, except on the sides of the marsh and they are very shallow.

The accompanying contour map will give a good idea of the position of the islands and tongues of land with their relative heights. The contour interval is ten feet. The elevations were taken with an aneroid barometer and locations were made with a considerable degree of accuracy.