but they are each 3 ft. high. Surveyed Oct. 25, 1884.

Zumbro Valley mounds. Four good-sized tumuli are on N. W. $\frac{1}{4}$, S. W. $\frac{1}{4}$, sec. 19, T. 110-10. They are from 40 ft. to 54 ft. in diameter and from 2 ft. to 3 ft. high. Surveyed Oct. 25, 1884.

Zumbro Valley mounds, N. W. $\frac{1}{4}$, N. W. $\frac{1}{4}$, sec. 22, T. 110-10. These six mounds are all circular except one, which has the dimensions 42 ft. by 35 ft. The top of No. 6 is 39 ft. above the top of No. 5, and is about 130 ft. above the river. These mounds were built from dirt and broken sandrock taken from the bluff. About one third of No. 1 has been dug away. Its top is oblong. Surveyed Oct. 25, 1884.

Zumbro Valley mounds, center of S. E. $\frac{1}{4}$, sec. 22, T. 110-10. Group of 5 tumuli is situated on the terrace about 25 ft. above the river. These tumuli are of ordinary size, the largest being 44 ft. in diameter and the smallest 26 ft. Surveyed Aug. 14, 1884.

Zumbro Valley mounds, W. $\frac{1}{2}$, N. W. $\frac{1}{4}$, sec. 19, T. 110-10, about 75 ft. above the Zumbro. This group consists of 13
circular mounds, the largest being 58 ft.
by 4½ ft. and the smallest 24 ft. by 1 ft.

*Zumbro Valley mounds,* on S. E. ¼, sec.
14, and S. W. ¼, sec. 13, T. 110-11. This
group of 34 mounds embraces 3 effigies and
4 elongated mounds. The former are not
in the line along the brow of the bluff with
the tumuli, but the elongated mounds are
in the general line of extension of the group.
Still, the effigies are not far removed, and
are apparently to be considered as parts of
the group. One represents a bird in flight,
but with its wings half closed as if descend-
ing to its perch. The others are near to-
gether and represent some animal with a
heavy tail and short neck, but a large head.
They might be considered a poor imitation
of the profile form of a dog, or a fox, or a
wolf, or a beaver, or a raccoon. The tail
of the bird has not a rectangular termina-
like those of Prior lake in Scott county, but
a widening and rounded end, which is en-
croached on by the public road. Between
the wings this bird is 2 ft. high. The largest
tumulus is 52 ft. in diameter and 5 ft. high.
Another is 42 ft. by 6½ ft.; another 50 ft.
by 3 ft., and still another 42 ft. by 5 ft.
The plateau on which this group is situated
is 75 ft. above the Zumbro. Surveyed Oct.
24, 1884. (Shorn on page 135.)

*Zumbro Valley mounds,* N. E. ¼, S. W.
¼, sec. 12, T. 110-11. Here are three sub-
groups. The first contains two tumuli about
40 ft. above the bottom, about 25 ft. in
diameter and 5 ft. high. The second con-
tains three tumuli situated nearly east of
the last 150 yards. The terrace here is
about 40 ft. above the bottom. The mounds
are near the edge of the slope. The largest
is 46 ft. by 8½ ft. The third subgroup
contains two similar tumuli, 300 yards
southeast of the last and about 60 ft. above
the valley. Surveyed August 14, 1885.
(Shorn on page 138.)

A lone mound is on a point about 200 ft.
above the valley, on N. W. ¼, N. E. ¼,
sec. 10, T. 110-11. It is 35 ft. by 3½ ft.
and has been excavated. Surveyed August
13, 1885.

*Zumbro Valley mounds,* Hill group, S. W.
¼, sec. 10, T. 110-11. This group contains
98 mounds. They are on a terrace about
55 ft. above the bottom. There are many
others that are just traceable.
From No. 33 to No. 46 are a number of circular excavations, some of which have embankments on the outside. In this group are 5 elongated mounds or embankments, one bird effigy and many "Mandan lodges" or circles. The elongated mounds have about the same width as the average diameter of the tumuli, many of which are 18 ft. or 20 ft., the largest 45 ft. by 6 ft. Nos. 47, 51, 58 and 59 have been excavated. The circular embankment illustrated has an exterior diameter of 38 ft. and interior 20 ft. The excavation within the circle is 2½ ft. deep, and the embankment is 9 ft. wide and 1 ft. high. The dimensions of the other circles were not taken, but they may be presumed to be similar to those of this circle. The bird effigy has a rounded termination of tail (or body) and the head is hardly a head, being only a low-rounded protuberance without any neck. This effigy is 4½ ft. high in the center between the wings, 1 ft. at the narrowest part of the body, and 2 ft. near the end of the body. Including the head the body is 63 ft. long. Surveyed August 10 and 13, 1885.

There is every reason, excepting only the form of the effigy, to class it as a cotemporary work and a part of the group. It is highly improbable that a single earthwork, such as this effigy, should be erected at this spot by any earlier race. If it be supposed that it was formerly accompanied by others of like form, it is highly improbable that all the others should have disappeared, leaving this only intact. It appears, therefore, that the makers of the round tumuli and of the embankments were the architects of the effigy. (Shown on page 137.)

The circular excavations, mentioned above, not represented in the general plat of this group, are illustrated by the following drawing, which includes also the mounds No. 35 and No. 36, all on a scale of 1:400. These mounds are each 24 ft. in diameter, one 2 ft. high and the other 2½ ft. The circle is 38 ft. outside diameter, 20 ft. inside, and the excavation is 2½ ft. in depth. The embankment is 1 ft. high, and 9 ft. wide. Hence this locality has the appearance of having been the residence of a class of people who constructed circular houses, identical with those of the Mandans, who are a branch of the Dakota family. It is possible that on excavation some remnants of the wooden posts that supported the superstructures would be found. Mr. Brower denominated these "earthen lodge circles."

(Brower Note.)

Mounds west of Lake City,
N. W. ¾, W. W. ¼, sec. 5,
T. 111-12, situated on a terrace about 15 ft. above a lower terrace. This group now shows 10 mounds, but formerly others existed toward the northwest, which have been scraped down. These tumuli average about 35 ft. in diameter, and Nos. 3, 6 and 9 have been excavated. The extension which is attached to No. 10 is peculiar in not having parallel sides, but tapering so as to form a rounded end; i. e., it tapers from a width of 25 ft. to 20 ft. At one end it is 4 ft. high; at the other 1½ ft.

According to late Col. William Colvill, who resided long at Red Wing and assiduously studied the archaeology of the region, some of the mounds at Lake City were built by the Omaha, who,
with the Iowa, as learned by him from the Indians, occupied the region after the expulsion of the Assiniboin. (Minn. Geol. Surv. Rep., vol. ii, p. 60.)

According to Dr. L. C. Estes (Smithsonian Report, 1866, p. 366) extensive fortifications and forts once existed at Lake City. It is evident, however, that he exaggerated the regularity and size of these embankments. He notes, however, one "very large mound," "the only one out of line." He considered the mounds generally as places of habitation rather than of burial, the large ones being "forts."

Mounds 1 1/2 miles south of Lake City, S. W. 1/4, sec. 9, T. 111-12, on a plateau about 22 ft. above the creek. The "marsh mounds" opposite this group contained pottery, stone axes and arrow-heads. This group embraces 57 mounds of which nine are elongated and the rest tumuli. The largest is 38 ft. by 3 ft. and the smallest (No. 56) 17 ft. by 1 ft. Several are 18 ft. and 20 ft. in diameter. No. 11 has been excavated. Surveyed Oct. 3, 1884.

A lone mound is on the shore of Lake Pepin, S. W. 1/4, S. E. 1/4, sec. 15, T. 111-11, about 35 ft. above the lake, 25 ft. in diameter and 2 ft. high. Surveyed Dec. 8, 1888.

Kellogg mounds, S. W. 1/4, S. W. 1/4, and N. W. 1/4, N. W. 1/4, sec. 16, T. 110-10. Including one inclosure, there are 15 earthworks in this group. One of the mounds is ovate, rather than conventionally oblong. They are about 30 ft. above the river. One of the mounds seems to be composed of an elongated mound and a tumulus, the latter attached so as to form a rounded enlargement near one end. (Shown on page 140.)

The inclosure above mentioned is illustrated by the annexed plan, on a scale 1:400. The embankment is 14 ft. wide and 1 ft. high. The sides are 68 ft. long.

Wabasha mounds, W. 1/2, sec. 29, T. 111-10, upper group; this group contains 80 mounds, mostly small tumuli, crowded so that some of them
THE ABORIGINALS OF MINNESOTA.

[Map diagram showing a river, woods, meadow, brush, and cultivated areas.]

140
WABASHA, WABASHA COUNTY.

and pieces of ancient clay vessels.—Brow. Note.

La Batte’s trading post; about 1840 Joseph La Batte had a trading post where the elevator stands in Wabasha.

Augustin Rocque, Sr., formerly of Prairie du Chien, had a trading post where Reed’s Landing now stands, some time about 1800. Later his son, Augustin Rocque, Jr., had a post above “Beef” river, on Beef slough, and another in the upper part of Wabasha (Baptiste Rocque).—Hill Rec.

Wabasha mounds, S. W. 1/4, sec. 20, T. 111-10. These are five large mounds having diameters 54 ft., 80 ft., 76 ft., 68 ft. and 60 ft., the heights being respectively 3 ft., 4½ ft., 4½ ft., 3 ft. and 2 ft. They are on the original townsit. There is a slough between this plateau and the main town. A traveled road runs over the sides of the mounds next the slough. Surveyed April 28, 1883.

Mounds two miles below Wabasha, on S. E. 1/4, S. E. 1/4, sec. 3, T. 111-10, on a plateau 42 ft. above the bottomland. This group contains 11 tumuli, the larger ones being on the brow of the bluff and the smaller ones scattered over the surface further back. The largest is 60 ft. by 3 ft. and the smallest
23 ft. by 1 ft. Surveyed Aug. 12, 1884. (Shown below.)

Mounds 2 miles below Wabasha, W. 1/2, N. W. 1/4, N. W. 1/4, sec. 3, T. 110-10, about 40 ft. above the slough. This is a large group of 81 mounds, mostly small tumuli, ranged closely along the brow of the bluff some of them in contact. Two of them are connected by a low embankment, 125 ft. long, and one of the elongated mounds tapers from a width of 27 ft. to 18 ft., being 99 ft. long. The other elongated mounds are normal as to size and position. One mound (No. 79) is entirely nondescript. It seems to have been started as a wide elongated mound, but one end flares out
PRairie Island Mounds. 143

into three short, spreading prongs. Its form suggests nothing. It is a curious anomaly in the midst of simplicity and uniformity. No. 9 has been excavated. Surveyed August 11 and 27, 1884. (Shown on preceding page.)

Indian Creek mounds, S. E. 1/4, N. E. 1/4, sec. 24, T. 109-10, on a terrace about 60 ft. above Indian creek. The group embraces 11 tumuli of rather uniform and medium size, ranging from 22 ft. to 35 ft. in diameter, of which the largest two have been excavated. The group is about 600 ft. from Indian creek. Surveyed August 8, 1884.

Whitewater River mounds, N. W. 1/4, S. W. 1/4, sec. 29, T. 109-9, on a terrace about 60 ft. above the river. This group contains 6 tumuli of rather uniform and average sizes, ranging from 25 ft. to 42 ft. in diameter, and from 2½ ft. to 6 ft. in height. Surveyed August 5, 1884.

One mile south of Weaver, N. W. 1/4, sec. 32, T. 109-9 This group comprises two tumuli of the same size and height, on cultivated land on a plateau about 40 ft. above a slough.

A lone mound is at Minnieaska, S. E. 1/4, S. E. 1/4, sec. 34, T. 109-9, on a very small terrace about 65 ft. above the river. It is 30 ft. in diameter and 2 ft. high.

In the Mitchell collection, so far as collected by Mr. Lewis, are 12 lance, spear and arrow heads, 8 war-points, 2 scrapers, 1 chipped implement and one "ceremonial ax." In the Brower register are 61 entries; the total number of specimens of all kinds being about 250.

EARTHWORKS IN GOODHUE COUNTY.

Prairie Island mounds. (a) N. W. 1/4, sec. 9, T. 113-15; from 6 ft. to 15 ft. above high water. In this group are included 51 mounds, of which 11 are broad-elongated mounds, one has a short, low extension, and one is somewhat lenticular in outline, yet with rounded ends. The largest of these tumuli is No. 38, 70 ft. by 4½ ft., yet No. 39 is 60 ft. by 5 ft. The rare lenticular form No. 4) is 82 ft. in length, 30 ft. in width at the center and 18 ft. in width at 9 ft. from the rounded extremities. Surveyed Oct. 23, 1885. (See insert No. 1, facing page 144.)

(b) Around the corners of secs. 22, 23, 26 and 27, T. 114-16, about 30 ft. above the lake. Two or three large mounds have been graded down, but the group still shows 29 mounds. In the group is one broad-elongated mound. The largest tumulus is No. 9, 65 ft. by 5 ft. No. 8 is 60 ft. by 5 ft. Others are 50 ft. and 55 ft. in diameter at the ground and each 3½ ft. high. The largest mounds are isolated from the general assemblage. Surveyed Nov. 9, 1885. (See page 145.)

(c) N. E. 1/4, sec. 23, T. 114-16, above overflow. Group embraces 42 earthworks, of which 7 are elongated mounds or embankments. These embankments extend in line with the tumuli or are adjacent and parallel, having width of 18 ft. to 20 ft. or 22 ft. No. 2 is one of the longest seen of its kind, being 878 ft. in length and nearly straight, but yet having four slight changes of direction. Their height is from 1½ ft. to 2 ft. They are so closely associated with the tumuli, and mingled with them, that their purpose must have been allied or identical. The largest tumuli are isolated from the main series. They are 65 ft. and 64 ft. in diameter and respectively 5½ ft. and 5 ft. high, the latter having been excavated Surveyed Nov. 4, 1885. (See insert No. 2, facing page 144.)

[Note.—In June, 1907, the writer visited this group and made a cross section of the longest of these ridges. Expecting to find the decaying stumps of palisades running in a series along the central part of the ridge, he was surprised to encounter, at about the level of the original surface, a quantity of human bones, including fragments of the skull and several teeth. The fragments were in close contiguity, the skulls not being separated more than a foot from the other bones, an arrangement that is well known to have characterized the Dakota. It was plain that these bones had been visited by some burrowing subterranean small animal, since his burrow was still quite evident. It extended in a direction about parallel with the main ridge, and allowed of a stick being thrust into it for the distance of four feet toward the south from the face of the excavation. The bones were fragmental and gnawed. The teeth were found scattered in the dirt, and most of them were so decayed that only the enamel portion could be gathered. From the difference in the wearing, it appeared plain that two individuals were represented by the teeth. Those molars most worn also had better preserved roots.]
(d) S. W. 1/4, N. W. 1/4, sec. 26, T. 114-16; above overflow. This group contains 14 mounds, of which one is elongated. The largest tumulus is 42 ft. by 3½ ft. Another is 42 ft. by 3 ft. The rest are from 25 ft. to 32 ft. in diameter and about 2 ft. high. Surveyed Nov. 9, 1885. (See page 146.)

(e) N. 1/2, N. E. 1/4 sec. 26, T. 114-16, about 20 ft. above the slough. This group contains 9 mounds, of which 3 are broad-elongated, one having the dimensions 100 ft. by 60 ft. by 4 ft. Surveyed Nov. 4, 1885. (Page 147.)

(f) S. 1/2, S. E. 1/4, sec. 30, T. 114-15. Group contains 24 mounds, mostly tumuli, only two being elongated. Of these one is large, viz.: 102 ft. by 60 ft. by 5 ft. The other is 90 ft. by 30 ft. by 2 ft. No. 11, which is 72 ft. by 3 ft., on being examined, afforded a copper ax.* No. 9 has also been excavated. No. 1, 72 ft. by 6 ft., is flat-topped, the top diameter being 25 ft. This group is loosely scattered. Surveyed Nov. 3, 1885. (See insert No. 3, facing page 144.)

(g) S. W. 1/4, S. E. 1/4, sec. 32, T. 114-15. This group embraces 45 mounds, of which only one is elongated. It is large, 94 ft. by 55 ft. by 4 ft., and not in the line of the main series. The largest tumulus is 80 ft. by 8 ft., in cultivated land, and out of the main series. This group is above the overflow of the river. Surveyed Oct. 16 and 24, 1885. (See insert No. 4, facing page 144.)

(h) N. W. 1/4, N. E. 1/4, sec. 8, T. 113-15. Group of 8 small, crowded tumuli.

(i) S. E. 1/4, S. E. 1/4, sec. 5, T. 113-15. Group of 6 tumuli, of which 4 are small. The other two have dimensions 60 ft. by 7½ ft., and 60 ft. by 6 ft.; above overflow.

(j) S. E. 1/4, N. E. 1/4, sec. 6, T. 113-15. Three mounds, one being broad-elongated. Surveyed Oct. 16, 1885.

(k) N. 1/2, N. W. 1/4, sec. 25, T. 114-16. Group of 2 tumuli, one being 65 ft. by 5 ft. (See inserts and pages 145 to 148.)

On Prairie island are the following lone mounds, two of them being elongated mounds:

S. W. 1/4, S. E. 1/4, sec. 5, T. 113-15, elongated, 55 ft. by 35 ft. by 3 ft.; above overflow.

N. E. 1/4, S. W. 1/4, sec. 26, T. 114-16, elongated, 75 ft. by 25 ft. by 3 ft.; 25 ft. above the bottomland.


S. W. 1/4, N. E. 1/4, sec. 6, T. 113-15, above overflow, 45 ft. by 4½ ft.

N. E. 1/4, N. E. 1/4, sec. 6, T. 113-15, above overflow, in cultivated land, 50 ft. by 3½ ft.


Mr. Brower has charted a lone mound, and an ancient earthwork, or embankment, on sec. 4, T. 113-15, on the west side of the outlet of Sturgeon lake ("Minnesota," p. 112). This embankment he considered as the remains of Le Sueur's trading house, built in 1695.

Mounds opposite Prairie island, S. W. 1/4, S. E. 1/4, sec. 27, T. 114-16, about 10 ft. above the slough. Four small tumuli. Surveyed Sept. 30, 1885. (Shown above.)

(b) N. E. 1/4, N. E. 1/4, sec. 12, T. 113-16. Three of these are about 180 ft. above the slough, but No. 4 is only 60 ft. above it. No. 4 is coffin-shaped. Its length is 75 ft. Its greatest width is 30 ft., and at about 20 ft. from the small end it is 20 ft. wide. (See page 149.)

*This ax is thus described in "Macalester College Contributions," First Series, p. 176: "No. 1231, Small copper ax or celts, from Mound No. 4 [11], on the S. E. 1/4, sec. 30, T. 114-15, Goodhue county, Minnesota. It is about 2 inches in length and 1½ inches wide at the bit. It was found at the base, near the center of the mound, which was 5 [3] feet in height, which was being demolished to obtain material for building a public road." The above corrections are made from Mr. Lewis' field-book.

In the same work is described and figured a copper spear-head found on N. E. 1/4, sec. 24, T. 113-15. This was above the gravel and about 2 feet beneath the natural surface in the edge of a railroad cut. It is over 5 inches in length and has a hole for riveting it to the shaft. Its width is 1¼ inches. It was in the midst of a village site and near or surrounded by a large group of mounds.
(g) Insert No. 1, Prairie Island Mounds.
(2) Insert No. 2, Prairie Island Mounds.

LAKE.
(g) Insert No 4, Prairie Island Mounds.
GOODHUE COUNTY MOUNDS.

(c.)

N. 32° E. about 802 feet.

Gradual slope.
Prairie island and its mounds have been the objects of special study by Mr. Brower, with view to discover, if possible, some evidence of the presence of Radisson and Groseilliers with Huron and Ottawa Indians in 1654-55, prior to their departure with cargoes of peltries for Quebec, as related by Radisson. (Minnesota, Frontispiece.) No such evidence was found—indeed it is not easy to see how the village debris left by them could be distinguished from the debris of Dakota Indians. It is not improbable, also, that the Huron and Ottawa Indians would have occupied the same village sites as the Dakota or Iowa who preceded them.

Mr. Brower records the discovery of 260 earthworks on Prairie island, among which he notes a "large imitative earthwork at Indian slough, on Prairie island." Mr. Lewis surveyed 239, not including the imitative earthwork nor the rectangular earthwork near the outlet of Sturgeon lake, which last may not have been of aboriginal origin.

Mounds on Prairie island were observed by Mr. Brower as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Along Chain lake and Vermilion river</td>
<td>104</td>
</tr>
<tr>
<td>Big Lodge circle</td>
<td>1</td>
</tr>
<tr>
<td>Other mounds near-by</td>
<td>9</td>
</tr>
<tr>
<td>Long earthwork near Sturgeon lake</td>
<td>1</td>
</tr>
<tr>
<td>Mounds at Erickson's</td>
<td>43</td>
</tr>
<tr>
<td>Lodge circles</td>
<td>4</td>
</tr>
<tr>
<td>Yiptine group</td>
<td>18</td>
</tr>
<tr>
<td>Jackson group</td>
<td>12</td>
</tr>
<tr>
<td>Brewer group at Clear lake</td>
<td>40</td>
</tr>
<tr>
<td>Scattering</td>
<td>4</td>
</tr>
<tr>
<td>At Eggleton</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total observed</strong></td>
<td><strong>260</strong></td>
</tr>
</tbody>
</table>
According to Dr. W. M. Sweeney, there is a group not noted above, at the north of the Jackson group, containing 20 mounds.

The mound group at the west side of Sturgeon lake shows no visible indications of any fort or station built by Le Sueur or any other French trader, but only evidences of aboriginal occupation. An old "pot kiln," gone into decay, near the water, afforded pieces of burnt clay that was plastered against reeds and round sticks. An ash heap and a pile of burned debris, mostly of clay, was uncovered.

The artificial earthen embankment, situated at the northeast corner, sec. 5, T. 113-15, was found to be accompanied, on being trenched, with charcoal at several feet beneath the present surface. In the vicinity were found pottery fragments, flint chips, and one small round mound. This earthwork is 176 feet running east and west, and 80 feet north and south, forming a right angle. It is uniformly 8 ft. wide and 1 ft. high. It has the appearance of having been constructed by Europeans.—Brow. Note.

_Cannon River mounds_, N. E. 1/2, sec. 30, and N. 1/2, sec. 29, T. 113-15, about 70 ft. above Cannon river. This large group contains 173 works, of which 5 are broad-elongated, and one is ovate. The last is 61 1/2 ft. high and has the diameters 78 ft. and 66 ft., the latter being at 33 ft. from the larger end. No. 28 has been excavated. It was 42 ft. by 3 1/2 ft. The largest is 60 ft. by 6 ft.

The tumuli in this group can be classified according to their diameters as follows:

- Mounds 20 feet in diameter: 34
- Mounds 21 feet in diameter: 4
- Mounds 22 feet in diameter: 11
- Mounds 23 feet in diameter: 1
- Mounds 24 feet in diameter: 2
- Mounds 25 feet in diameter: 12
- Mounds 26 feet in diameter: 6
- Mounds 27 feet in diameter: 1
- Mounds 28 feet in diameter: 2
- Mounds 30 feet in diameter: 19
- Mounds 32 feet in diameter: 32
- Mounds 34 feet in diameter: 1
- Mounds 35 feet in diameter: 16
- Mounds 38 feet in diameter: 5
- Mounds 40 feet in diameter: 8
- Mounds 42 feet in diameter: 6
- Mounds 45 feet in diameter: 9
- Mounds 46 feet in diameter: 1
- Mounds 50 feet in diameter: 4
- Mounds 52 feet in diameter: 1
- Mounds 60 feet in diameter: 1

Surveyed Sept. 22, 23, 24, 1885. This group is probably that noted by Major Long's party, as being "more mounds than I ever before witnessed."—_Long's Ms. Notes._ (Shown on insert opposite.)

_Cannon River mounds_, N. 1/2, N. W. 1/4, sec. 29, T. 113-15, about 85 ft. above the river. Group of 5 tumuli, from 20 ft. to 30 ft. in diameter. Surveyed Sept. 15, 1885. (Shown in above.)

_Cannon River mounds_, S. 1/2, N. W. 1/4, N. E. 1/4, sec. 29, T. 113-15; group of 10 tumuli; about 85 ft. above the river, distributed loosely along the bluff, from 20 ft. to 30 ft. in diameter. (Shown on following page.)

*Later examination has shown that this burnt clay is not pottery clay, but was derived from the destruction by fire of one of the mud houses of the region. This is discussed at another place.—N. H. W.*
Cannon River mounds, N. W. 1/4, N. E. 1/4, sec. 19, T. 113-15; about 80 ft. above the Cannon river; three ordinary tumuli similar to the last. (Shown below.)

Cannon River mounds, N. W. 1/4, sec. 30, T. 113-15; group of 26 mounds, of the usual sizes, three of which, however, have diameters 40 ft., 50 ft. and 60 ft., with heights respectively 3 ft., 3 1/2, and 3 1/2 ft. One is also a simple elongated mound 92 ft. long, 20 ft. wide and 1 ft. high. They are about 70 ft. above the river. Surveyed Sept. 1, 1885. (Shown on following page, top.)

Cannon River mounds, (a) N. 1/2, S. E. 1/4, sec. 16, T. 113-15; about 10 ft. above a slough; 6 common tumuli.

(b) N. W. 1/4, N. E. 1/4, sec. 21, T. 113-15; two common tumuli, each 35 ft. in diameter, one 5 ft. and the other 4 ft. high; 235 ft. above the river.

(c) N. E. 1/4, N. E. 1/4, sec. 21, T. 113-15; about 200 ft. above the river; a group of seven common tumuli, the largest being 40 ft. by 6 1/2 ft., and one elongated mound. (Shown on following page, bottom.)

There is a lone mound, S. 1/2, S. E. 1/4, sec. 16, T. 113-15, on a terrace, about 80 ft. above the river, on the north side, 30 ft. by 3 ft.

Cannon River mounds, W. 1/2, S. W. 1/4, sec. 21, T. 113-15; about 90 ft. above the river; group of 64 mounds, of which one (No. 5) has been excavated. Seven of this group are broad-elongated, and one is a flat-topped rectangular mound, having dimensions 48 ft. by 60 ft., and 4 ft. high. It is surrounded by ordinary tumuli, amongst which are a few broad-elongated mounds. This abrupt divergence from the usual shape of these mounds is remarkable, and this mound may have been used for a different purpose. Its size and shape suggest the type of communal house described by Morgan as characteristic of most of the aborigines, but its isolation from all others of that type and its close association
with numerous others of the usual form create some doubt whether it was the base of a communal house. The dimensions of the flat top are 24 ft. by 36 ft., and the ascent from the base to the top is 12 ft. wide all round. Surveyed Sept. 10, 1885. (Shown on page 153.)

Cannon River mounds, N. E. 1/4, sec. 35, T. 113-16; about 78 ft. above the Cannon river; group of 67 ordinary mounds, of which 14 are broad-elongated, and one has an extension or low “approach.” The largest of the elongated mounds is 85 ft. by 50 ft. by 8 ft. Surveyed Sept. 28 and 29, 1885. (Shown on page 155.)

Cannon River mounds, (a) S. W. 1/4, S. W. 1/4, sec. 26, T. 113-16; about 100 ft. above the river; a broad-elongated lone mound.
(b) S. E. 1/4, S. W. 1/4, sec. 26, T. 113-16; about 130 ft. above the river; group of three ordinary tumuli.
(c) S. W. 1/4, S. E. 1/4, sec. 26, T. 113-16; about 130 ft. above the river; group of 4 ordinary tumuli, of which No. 1 has been excavated.
(d) S. E. 1/4, S. E. 1/4, sec. 26, T. 113-16; about 130 ft. above the river; group of three common tumuli. Surveyed Sept. 18, 1885.

Cannon River Valley mounds, S. W. 1/4, S. W. 1/4, sec. 22, and S. E. 1/4, S. E. 1/4, sec. 21, T. 113-15; on a terrace about 120 ft. above the river; section line near Nos. 68 and 69. The group contains 91 mounds, and toward the southeast is continuous with a group of Spring Creek Valley mounds, only a ravine in which runs a public road separating them. Thirteen are elongated mounds, mostly broad. No. 28 is ovate, with dimensions 52 ft. by 54 ft., the shorter diameter being at 17 ft. from the big end, and it has been excavated. The largest tumulus is 60 ft. by 5½ ft., and stands apart. One broad-elongated mound has the dimensions 80 ft. by 60 ft. by 7 ft. This group of tumuli, in the main, embraces tumuli of average size. Surveyed Sept. 1, 1885. (Shown on insert opposite.)

Of the Cannon River mounds the writer said, in his geological report on Goodhue county (Vol. 1, p. 58): “A great many mounds are on the lower terrace, and these are generally smaller than those on the higher terrace, yet according to Mr. C. Spates, on whose farm some of them are located, some of the lower mounds are quite as large as the upper. In the space of a square mile probably 500 mounds could be counted, and the aggregate number from Red Wing to Belle Creek would probably exceed 1,000. They seem to have an irregular distribution about the brink of the terraces and along the sides of the little ravines that descend to the river.

“Those on the upper flat, at Mr. Spates’ house, are from 4 ft. to 6 ft. high. One that is on the top of Barn bluff at Red Wing was seen by Maj. Long in 1817, and on measurement was found to be 5 ft. high. When the railroad was graded recently across the lower flat on the Spates farm, a number of these mounds were destroyed, and there were found relics, some of which have been procured for the general museum of the university. These consist of pieces of broken pottery, of the usual variety,
fragments of human skulls, a bone sharpened at one end as if for use as a needle, an awl-shaped bone, evidently the penis bone of the badger, a gray slate colored stone pipe, incomplete, about 3\(\frac{1}{4}\) inches long, having the bowl and draft hole for the stem unexcavated, and a large knife or spear-blade of white granular quartzite, so thin that it is transparent. The last is about an inch and three-quarters in width, and when entire was probably about 12 inches in length. The piece obtained is 9 inches long. Occasionally are found arrow-points in the fields, and also on the farms further west.”

*Cannon River mounds*, E. \(\frac{1}{2}\), N. W. \(\frac{1}{4}\), sec. 35, T. 113-16, about 42 ft. above the river, group of three ordinary tumuli. Surveyed Sept. 24, 1885.

*Lone mounds* have been surveyed as follows:

- N. W. \(\frac{1}{4}\), S. W. \(\frac{1}{4}\), sec. 29, T. 113-16, on a spur about 125 ft. above Cannon river; elongated mound partially composed of stone, 25 ft. by 42 ft. by 5\(\frac{1}{2}\) ft.
- N. E. \(\frac{1}{4}\), S. E. \(\frac{1}{4}\), sec. 34, T. 113-16, about 190 ft. above the river; 52 ft. by 5 ft.

*Mounds between Spring creek and Cannon river*, N. \(\frac{1}{2}\), S. W. \(\frac{1}{4}\), and N. W. \(\frac{1}{4}\), S. E. \(\frac{1}{4}\), sec. 22, T. 113-15; about 60 ft. above the river. From 50 to 75 others are in the cornfield, unsurveyed, and many others have been obliterated. Those remaining and surveyed are 226, constituting one of the largest groups known in the state. Of this group 8 are elongated and 2 have extensions in the form of low embankments. One elongated mound (No. 151) is shaped like a copper spear-head, with a height of 3 ft., but the tumuli are of the usual size, from 20 to 30 ft. in diameter, occasionally reaching 40 ft. and 45 ft., one being 50 ft., and another 60 ft. Surveyed Aug. 24 and 25, 1885. (Shown on insert opp.)

*Spring Creek Valley mounds*, S. \(\frac{1}{2}\), sec. 22 and N. \(\frac{1}{2}\), sec. 27, T. 113-15; about 120 ft. above the river; many others have been obliterated. Group contains 25, of which 4 are ordinary broad-elongated mounds, one is of the shape of a stone smoking pipe, and two are of peculiar shape. These two consist of a body part which is nearly circular, but which has a tangential extension about 25 ft. long which suddenly turns at nearly a right angle and runs to a blunt point. In No. 15 the angle is somewhat more than 90 degrees, and in No. 8 it is less than 90 degrees. These extensions as flexed are directed away from the tangent toward the main mound, thus forming with the main mound an imperfect hook. This group extends toward the northwest so as to unite with a large group of Cannon River Valley mounds.
The pipe mound is 212 ft. long, and 79 ft. deep, from the top of the bowl to the bottom. (Shown on page 157.)

*Spring Creek mounds*, (a) N. E. ¼, S. W. ¼, sec. 28, T. 113-15; about 175 ft. above Cannon river. No. 1 has more or less stone in its composition. Group contains 4 tumuli about 30 ft. in diameter, the largest being 32 ft. by 3 ft.

(b) S. W. ¼, N. W. ¼, sec. 27, T. 113-15; about 65 ft. above Spring creek. Group embraces 3 ordinary tumuli from 28 ft. to 36 ft. in diameter, and are about 3 ft. high. Surveyed Sept. 4, 1885.

(c) N. ¼, S. E. ¼, sec. 28, T. 113-15; about 150 ft. above Spring creek. Two tumuli, of which No. 1 is composed mostly of stone, and No. 2 mostly of dirt, the former 18 ft. by 2½ ft., and the latter 31 ft. by 3½ ft. Surveyed Sept. 5, 1885. (Shown on page 156.)

There is a lone mound, N. E. ¼, S. W. ¼, sec. 27, T. 113-15; 65 ft. above Spring Creek, 35 ft. by 3 ft.

*Mounds near Spring creek*, (a) S. E. ¼, N. E. ¼, sec. 22, T. 113-15; group of 7 mounds, on a terrace about 15 ft. above a swamp. One is broad-elongated and one is an effigy. The latter stands in the line of the series and is apparently of the same date and origin. The animal effigy has a length of about 145 ft. and average hight of 1½ ft. (Shown below.)

(b) S. W. ¼, sec. 23, T. 113-15; on a terrace about 20 ft. above a swamp; group of 5 mounds, all circular, but two of them connected by an embankment. Surveyed Sept. 2, 1885. (Shown below.)

(c) S. W. ¼, S. E. ¼, sec. 29, T. 113-15; about 15 ft. above Spring creek; group of 8 tumuli, of which the largest is 56 ft. by 5 ft. Surveyed Sept. 4, 1885. (See page 160.)
(d) S. W. 1/4, S. E. 1/4, sec. 29 and N. W. 1/4, N. E. 1/4, sec. 32, T. 113-15; valley rather rolling; group of 20 mounds, of which two are broad-elongated and one has a broad extension or "approach" 81 ft. by 42 ft. by 21/2 ft., the mound itself (No. 9) being 65 ft. by 31/2 ft. Surveyed Sept. 15, 1885.

(e) W. 1/2, S. W. 1/4, S. W. 1/4, sec. 27, T. 113-15; about 40 ft. above the creek; group of 14 mounds, of which one is elongated and one is broad-elongated, the rest being ordinary tumuli. Surveyed Sept. 26, 1885. (Shown on page 158).
GOODHUE COUNTY.

(f) Center N. W. 1/4, sec. 33, T. 113-15; about 150 ft. above Spring creek. At the foot of the ledge or escarpment, below this group, there are a number of fissures on the sides of which can be traced carvings of animals, snakes, birds, men, and other pictographs. The group contains 3 tumuli of ordinary size. (See page 160).

(g) N. W. 1/4, S. E. 1/4, sec. 33, T. 113-15; about 25 ft. above Spring creek; group of 7 tumuli of ordinary size. (See page 160.)

(h) N. 1/2, E. 1/4, sec. 33, T. 113-15; three are about 70 ft. above Spring creek, and two about 40 ft. They are all common tumuli. Surveyed Sept. 4, 1885.

Mounds between Cannon river and Spring creek, (a) N. W. 1/4, S. E. 1/4, sec. 29, T. 113-15; on rolling ground; group of 4 common tumuli, the largest being 48 ft. by 51/2 ft.

(b) S. W. 1/4, N. E. 1/4, sec. 29, T. 113-15; group of 2 common tumuli on rolling ground.

(c) S. W. 1/4, N. W. 1/4, sec. 29, T. 113-15; about 250 ft. above Cannon river; group of 5 tumuli of average size, the largest being 54 ft. by 7 ft., and the smallest 20 ft. by 1 ft.

There is a lone mound, S. E. 1/4, N. E. 1/4, sec. 30, T. 113-15; about 250 ft. above Cannon river; 42 ft. by 41/2 ft.

Mounds near Spring creek, S. W. 1/4, N. E. 1/4, sec. 27, T. 113-15; on a ridge about 250 ft. above the Mississippi. Group contains 3 tumuli of ordinary size, of which Nos. 1 and 2 are composed of stone and dirt, and No. 3 is apparently all soil. On No. 3 there was a place built up of loose rock 2 ft.
3 inches by 1 ft. 6 inches and 1 1/2 ft. in height. The corners were carried up in good shape. There was nothing within or underneath. Red Wing, Barn bluff and the head of the lake are visible, while in the opposite direction the natural mounds in Pierce county, Wis., and the bluffs nearly to Prescott can be plainly seen. Surveyed Sept. 2, 1885.

Mounds near Spring creek, S. E. 1/4, N. E. 1/4, sec. 27, T. 113-15; on a terrace about 100 ft. above the river; group of 4 scattered tumuli of ordinary size in cultivated land. Surveyed Sept. 2, 1885. (Shown on following page.)

Serpentine and other mounds in Spring Creek valley, N.W. 1/4, S. W. 1/4, sec. 27, T. 113-15, (a), about 40 ft. above Spring creek; group of 11 circular mounds, two of which have curious serpentine appendages or "approaches," which are about 14 ft. wide and 1 ft. high. These appendages are a few feet wider at their junction with the mounds and a little higher. No. 6 is 290 ft. long, and No. 7 is 300 ft. long. It appears to have been simply a freakish notion that prompted the construction of these appendages. It is difficult to consider them effigies of snakes, yet if they represent any animal it must be the rattlesnake, which formerly was abundant in this region, and must have attracted the attention of the aborigines. Mr. Lewis has illustrated them in Science, No. 220, 1887, and considers them effigies of snakes. (Shown on following page.)
(b) S. 1/4, S. W. 1/4, sec. 27, T. 113-15; about 40 ft. above Spring creek; group of 20 mounds of which 8 are broad-elongated. Two of the latter have peculiar appendages similar to the last. These appendages leave their respective mounds obliquely at the ends, and one of them has an oblique appendage attached at each end. They are not only obliquely attached but they are at the corners, as it were, of the elongated mound. One of these snake-like elongations is bifurcated, one fork diverging at a right angle from the other and terminating sooner, with a slight backward recurving. One of the circular mounds has a similar appendage, its extremity being near the opposite end of one of the appended elongated mounds, but not connected with it. The total length of No. 3 is 430 ft., including the mound with which the extensions are connected. The length of No. 4 is 105 ft., and of No. 5, 105 ft. It is problematic
what may have been the purpose of these serpentine, low embankments. Perhaps the most reasonable hypothesis is that they were intended to imitate the form of the rattlesnake, whose bite may have caused the death of the parties inhumed in the mounds from which they extend. Surveyed Sept. 5 and 7, 1885.

Mounds in Spring Creek valley, S. E. ¼, N. W. ¼, sec. 34, T. 113-15; in a nearly level valley, two common tumuli, the larger 55 ft. by 3½ ft., the smaller 35 ft. by 2 ft. Surveyed Sept. 9, 1885.

Mounds at and near Red Wing, S. W. ¾, S. W. ¼, sec. 30, T. 113-14, and S. E. ¾, S. E. ¼, sec. 25, T. 113-15; about 160 ft. above the river; group of 31 mounds, of which 3 are oblong, one is ovate, and one is simply elongated. There were formerly many others, now obliterated by the growth of the city. The largest tumulus (No. 31) stands apart and has the dimensions, 55 ft. by 5 ft., and has been excavated. No. 5 is 54 ft. by 4 ft. (Shown on insert opposite.)

Barn Bluff mounds, Red Wing, N. ¼, N. W. ¼, sec. 29, T. 113-14; about 375 ft. above the river. The north side of the bluff is nearly perpendicular. Here are three tumuli, the largest being 52 ft. by 6½ ft. Surveyed Sept. 9, 1885.

In 1817 Maj. S. H. Long remarked of the large and most conspicuous of the Barn Bluff mounds: "Immediately upon the highest part of the Grange is one of the numerous artificial mounds that are to be met with in almost every part of the western world. Its elevation above its base; however, is only about 5 ft. I have observed that the mounds on the Mississippi above the Illinois, though probably more numerous, are of a much smaller size, generally, than those below, having been erected, perhaps, by a different nation of aborigines."—Minn. Hist. Coll. II, p. 44. (Shown on following pages.)
Stone mounds near Red Wing, S. W. 1/4, N. E. 1/4, sec. 34, T. 113-15; about 70 ft. above the valley. These four mounds are each from 18 ft. to 22 ft. in diameter, and from 2 1/2 to 3 ft. high. Nos. 1 and 2 have been excavated. They are situated on the very brow of the high bluff. Surveyed Sept. 7, 1885. (Shown on following page.)

Stone mounds near Red Wing, N. 1/2, S. W. 1/4, sec. 34, T. 113-15; on a hog-back, about 70 ft. above the valley. Three stone mounds or “cairns” are near the brow of the bluff. They are 18 ft. and 26 ft. in diameter and 3 ft. high, all having been excavated.

A lone stone mound is on S. E. 1/4, N. E. 1/4, sec. 28, T. 113-15, situated on a rocky spur. It has also been excavated. There are three small natural bosses or heaps of stone near-by. This mound is 18 ft. by 2 1/2 ft. Surveyed Sept. 7, 1885.

In volume 1 of the Minnesota Historical Collections, p. 147, in an article by Rev. J. F. Aiton, describing stone heaps at Red Wing, written at the instance of Dr. E. D. Neill in 1852, Mr. Aiton describes some of the stone heaps above mentioned:

“In 1848 I first heard of stone heaps on the hilltops back from Red Wing. But business and the natural suspicion of the Indian prevented me from exploring. The treaty of Mendota emboldened me to visit the hills and try to find the stone heaps. Accordingly, late last autumn I started on foot and alone from Red Wing, following the path marked P. on the map, [not published] which I herewith transmit. I left the path after crossing the second stream, and turning to the left I ascended the first hill that I reached. This is about a mile distant from the path that leads from Fort Snelling to lake Pepin. There, on the brow of the hill, which was about 200 feet high, was a heap of stones. It was about 12 feet in diameter, and 6 ft. in height. The perfect confusion of the stones, and yet the entirety of the heap, and the denuded rocks all around, convinced me that the heap had been formed from stones lying around, picked up by the hand of man.

“But why and when it had been done were questions not so easily answered. For solving these I resolved to seek internal evidence. Prompted by the spirit of a first explorer, I soon ascended the
heap; and the coldness of the day, and the proximity of my
gun, tended to suppress my dread of rattlesnakes. The stones
were such that I could lift or roll them, and I soon reached a
stick, about two feet from the top of the heap. After descend-
ing about a foot farther I pulled the post out; and about the
same place found a shank bone, about 5 inches long. The post
was red cedar, half decayed, i. e., on one side, and rotted to a
point in the ground; hence I could not tell whether it grew there
or not. The bone is similar to the two which you have. I left
it and the post on the heap, hoping that someone better skilled
in osteology might visit the heap. The stones of the heap are
magnesian limestone, which forms the upper stratum of the
hills about Red Wing.

"Much pleased, I started south over the hilltop, and was soon
greeted by another silent monument of art. This heap is marked
B on the map. It is similar to the first, which is marked A,
only it is larger, and was so covered by a vine that I had no
success in opening it. From this point there is a fine view
southward. The valleys and hills are delightful. Such hills
and vales, such cairns and bushy glens would in my father's
land have been the thrones and playgrounds of fairies. But I
must stick to facts. I now started eastward to visit a conical
appearing hill, distant about a mile and a half. I easily de-
scended the hill, but to cross the plain and ascend another hill,
'hic labor est.' But I was amply repaid. The hill proved to
be a ridge, with several stone heaps on the summit. Near one
heap there is a beautiful little tree with a top like 'Tam
O'Shanter's' bonnet. In these heaps I found the bones which
I left with you. I discovered each about half way down the
heap.

"I then descended northward about 200 feet, crossed a valley,
past some earthmounds, and ascended another hill, and there
found several more stone heaps similar to the others. In them
I found no bones, nor did I see anything else worthy of par-
ticular notice at present." Mr. Aiton wrote from Kaposia,
Jan. 17, 1852.

Of these stone heaps Col. William Colvill writes: "The
mounds on the bluffs are generally loose piles of stones, having
a circular opening extending vertically from the apex to the
base of the pile. It is large enough to allow a man to stand
erect within. They remind one of watch towers or signal
stations; with proper draft, easily provided for, they would
send up, from a small fire, a 'pillar of smoke.' They are quite
recent, as a cedar stake, or post, was taken from one of them
in the year 1852. As the Sioux have no knowledge of them I
suppose them to be Omaha mounds."

Dr. W. W. Sweeney, an old resident of Red Wing, quoted by
Mr. J. V. Brower in "Minnesota," pp. 60-63, made an early and
careful examination of some of the stone heaps about Red Wing.
In 1869 he described them in an address before the Old Settlers'
Association, and from that address the following interesting
quotation is taken:

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“On the sharp hill-points, in the vicinity of Cannon river and Spring creek, are a number of cairns or stone mounds. These are on the highest points, where shelly rock outcropped, and always overlooked the plateaus or valleys on which were situated large groups of earthen tumuli. The cairns were of various sizes, ranging from six feet in diameter to twelve at the base. Their shape was conical; and some in the best state of preservation had an elevation of from eight to ten feet. The base was on the bed-rock, and all the loose stones in the vicinity had evidently been gathered to aid in the completion of the structure. The first layer was in the form of a circle, and by inlapping toward the center in every succeeding layer an apex was finally reached. A majority of these structures had fallen in, leaving a circle of rude masonry from three to four feet high, while the remains of the upper portion, laid in a mass inside the wall, not filling the cavity, showing very conclusively that they had been built hollow. Being very desirous of ascertaining the purposes for which they were erected, I selected two of the most perfect, which were situated on an isolated hill in the valley leading from the little brook near Hawley's mill to Spring creek. This hill is very sharp and narrow, barely affording level base enough for the foundation of the large mound, which was at least 12 feet in diameter and 9 feet in height. It had settled considerably, pressing on the cavity. After an hour’s hard work, we were in a situation to observe the condition at its foundation. A few handfuls of black mould was scattered over the bare base rock, a fragment of bone three inches long, a mussel shell nearly in powder and two remnants of wood distant from each other about six feet in an east and west direction, was all it contained. Of the bone there was hardly enough to determine conclusively as to the species of animal to which it belonged, but I think it was a portion of the humerus or upper arm of an adult human being. When we found the wooden fragments they were standing upright, as stakes, supported in that position by rock, and were dry-rotted to points. With a knife I cut off all the decayed wood, the center being a mere splinter, but enough to clearly distinguish it as that kind of oak known as swamp, or blue, oak. I searched very thoroughly for teeth, as my opinion was, and is, that these cairns were burial places, thinking that the enameled portions would resist the process of decay, but none were to be found. The other mound did not yield the same amount of discoveries; a little mould, and traces of what we supposed to be decayed bones or shells, were all that repaid our labor.

“As I observed, I think these cairns were designed as burial places, and for distinguished personages. The material of which they were composed secured them against the depredations of wild animals. Their number, however, would lead to the conclusion that it was not the common mode of sepulture.”

Mr. Brower, in commenting on the remarks of Dr. Sweeney, says: “The discovery of remnants of decayed oak and red cedar posts beneath the precipitated walls of the cairns near Red Wing fifty years ago, compared with the well-known facts concerning scaffold burials within the area of Minnesota in ancient times, constitutes at least a probable solution of the question concerning the true character of the cairns. Limestone in place forms an important surface portion of many hilltops about the locality where the stone heaps exist. Scaffold posts could not be set into the limestone formation. In my opinion the Indians who constructed the cairns in oval-like hollow walls around posts did so ingeniously while constructing scaffolds for mortuary purposes. Being unable to set the posts into the bed-rocks, they were held in upright position by the cairn structures which were erected around the base of the four or more large posts which constituted the upright frame of the scaffold, thereby offering permanent structures set in limestone walls. They are now in a state of precipitated decay, scarcely anything except irregular stone heaps remaining. There is very little if any evidence indicating the identity of the builders, except environment, which almost surely proves that the cairns were erected by Iowa Indians, or by their individual successors at Cannon Valley, the Dakota. I know of no reason why a high scaffold erected for the ceremonies of burial rites might not have also been used as an outlook in case of danger from an approaching enemy.”—Brow. Mem. VI, 64.

These mounds, as well as those made partly of stone and partly of earth, are closely related in manner of distribution, as well as in their forms and sizes, with the common tumulus, and are referable to the same general agency and date, and probably to the same purpose. The observations of Dr. Sweeney satisfactorily demonstrate that sepulture was their main intention. That the body, or the bones, of the deceased, were placed above the stony vault, as presumed by Mr. Brower, is not so evident. If the cavity was constructed it must have had a purpose, and it is hardly consistent with the construction of a scaffold to place the bases of its main supports in a cavity. Scaffold burial was practiced to receive the bodies immediately after death. Later, after the fleshy parts had decayed, the bones were gathered
together for permanent sepulture in earth pits or under mounds. But scaffold burial was not invariable, or at least not essential. There are known instances of burial of the body in sitting posture, which must have taken place before the flesh had separated from the skeleton. Persons of distinction may have been honored by immediate burial in these stone vaults. The wooden posts, which were certainly within the vaults, remain unexplained, but may have served for support of the body in an erect sitting position. These cairns were originally perhaps covered by earth, thus forming the customary tumulus.

Red Wing mounds, S. W. 1/4, S. W. 1/4, sec. 30, T. 113-14, about 180 ft. above the river; group of four tumuli, No. 1 having been excavated. Surveyed Aug. 20, 1885. (Shown opposite.)

Mounds on townsite of Red Wing, S. 1/2, S. E. 1/4, sec. 30, T. 113-14; on a spur ridge about 270 ft. above the Mississippi river. Two isolated tumuli, one 45 ft. by 3 ft., and one 25 ft. by 1 ft. (Shown below.)

The original condition of the mounds at Red Wing is shown by records kept by Mr. Hill. These contain a letter from Mr. J. W. Hancock, and a small map, which are substantially as below.
MOUNDS AT RED WING.

Letter from Rev. J. W. Hancock.

Red Wing, Jan. 19, 1867.

A. J. Hill, Esq., St. Paul,

I landed at Red Wing in June, 1849, and remember that a row of mounds extended along the southwestern border of the Indian corn fields, the ground now occupied by streets and buildings in this city. With my pencil I have endeavored to make dots on the plat you sent to show the locality of these mounds. Scarcely any of them are now visible. In opening them to the level with the surrounding grounds nothing but ashes and a few bones has been found, to my knowledge, the bones being those of deer or other game. There were other mounds one-half mile southwest, on a flat or bench of land rising some 50 feet above the city proper. These I have also designated with my pencil. One of these was differently shaped from the others, the mounds generally being circular and even-shaped and about 6 feet high in the center. This one extended along something like 100 feet, east and west, then forming a right angle, extended 30 feet or 50 feet south. It was about the same general height as the others. I have marked this with ink on your plat. This last is still visible.

There was another mound on Barn bluff of the same general appearance and dimensions. This is also still visible.

The stone heaps mentioned by Aiton's letter in Neil's history were on a bluff about 3½ miles west from Red Wing on the road to Hastings. After crossing Spring creek and ascending the long sand hill the bluff rises at a little distance on your left. I have marked these on your smaller plat. Those on the Cannon river I never saw.

Yours truly,

J. W. HANCOCK.

The two plats referred to are condensed into one in the following map, from Mr. Hill's drawings, showing the location of all the mounds referred to by Mr. Hancock.

Letter of Lawrence Taliaferro.

Bedford, Penn., Aug. 10, 1868.

A. J. Hill, Esq., St. Paul, Minn.,

Dear Sir: I am duly in receipt of your communication of date the 1st instant, with circular enclosed. I am so very feeble at this date that I have neither memory nor strength to make you a satisfactory response to the various requests therein embraced. I see the interest felt by you and the Society as shown in your printed circular.
I can only say I know of no old mounds or earthworks in Minnesota beyond such as were thrown up for temporary defense, and those near the St. Croix and on the plains between the headwaters of the Des Moines and Cannon rivers. The one above Cannon river was rendered famous from the fact of the defeat of the Sac chief, Keokuk, with 200 mounted men in 1830 by a small party of the Five Lodge band of Sioux and Wapacootas, some 35 men and women. What is most remarkable, these poor Sioux had but three guns, the balance bows and arrows, yet from their earth-pits Keokuk was kept at bay all day until late at night, when all the Sioux made a successful retreat. The Sacs came home—several arrows in their persons—with the loss of one man.

As relates to "traditions of former hostilities," and fortified positions on the St. Croix river, or the plains of the Red River valley, or that any traces remain of ancient villages between the Mississippi and the St. Croix, I have no specific knowledge on record. From what I could gather from some old chiefs, especially from the venerable "Petit Corbeau" or Little Crow [father of the historic Little Crow who led the massacre of 1862.—N. H. W.] their villages were generally confined, east and west, on the Mississippi, except when encamped in lodges or on their hunting grounds. The nation becoming numerous, the tribes went west, and finally were known as the "Seven Fires," designated as Medawa-canton, Wapacoota, Wahpeton, Sisseton, Yankton, Teton, Santee or Ogala. The Dakota natives claimed the country east and west of the Mississippi, and from 49° North to the Missouri river, even to "portage des Sioux," in Missouri. The Little Crow, when questioned as to the date of hostilities with the Chippewa, replied that his father could not tell, but presumed it arose from the fact of speaking a different language, and jealousy of encroachment on their lands and hunting grounds. Had I been initiated into their Medicine family, as was proposed by this venerable chief, I might have gained much useful information. I often regret I ever left this noble people. I was much attached to them, and they equally to my person.

Yours very truly,

Lawrence Taliaferro.

The following is from the writer's report on Goodhue county: "At Red Wing was formerly a mound, situated on Main street, which, when removed, was found to contain a human skeleton, and with it a medal having date 1801. On one side is the date, with the head of Jefferson and his name. On the other is a representation of clasped hands, hatchet and pipe crossed, and 'Peace and Friendship.' It is quite a large medal, and is owned by Mrs. Frank Sterritt, St. Paul, from whom this description was obtained. In the opinion of Col. Colvill, this is evidence that the Indians then living here constructed these mounds. On being questioned by Col. Colvill, another old Indian said he was present and saw the burial of him that wore the medal.'"

According to Col. Colvill, this medal probably was presented by Gen. Pike to Red Wing in 1806, on his return from the headwaters of the Mississippi.

Through the kindness of the Misses Sterritt, now of Minneapolis, the following illustrations of this medal have been furnished, from photographs taken by George Lixton. (See following page.)
Mounds near Red Wing, in Hay creek valley, (a), N. W. ¼, S. W. ¼, sec. 25, T. 113-15, about 200 ft. above the river; group of three common tumuli, the largest being 50 ft. by 5½ ft.

(b) S. E. ¼, S. W. ¼, sec. 25, T. 113-15; about 70 ft. above Hay creek; two ordinary tumuli, on a spur of land overlooking the valley. Surveyed Sept. 14, 1885. (Shown on preceding page.)

There is a lone mound, N. W. ¼, N. W. ¼, sec. 2, T. 112-15, three miles southwest of Red Wing, near the end of a spur, looking southeastward. 18 ft. by 1½ ft.

Mounds near Red Wing in Hay Creek valley, S. W. ¼, N. W. ¼, sec. 36, T. 113-15; about 60 ft. above Hay creek; group of 23 common tumuli, partly in cultivated land. Surveyed Sept. 14, 1885. (Shown on following page.)

There is a lone broad-elongated mound, N. W. ¼, N. W. ¼, sec. 36, T. 113-15; about 6 ft. above Hay creek, 26 ft. by 35 ft.

Mounds between Hay creek and Spring creek, S. E. ¼, N. E. ¼, sec. 26, T. 113-15; about 60 ft. above a slough; group of 15 common tumuli, averaging about 32 ft. in diameter, two of them being 45 ft. by 3 ft. Surveyed Aug. 22, 1885. (Shown on second page following.)

Mounds between Hay creek and Spring creek, S. W. ¼, S. E. ¼, sec. 26, T. 113-15; about 90 ft. above the Mississippi river; group of two common tumuli, 35 ft. and 30 ft. in diameter. Surveyed Oct. 6, 1885.

Mounds between Florence and Frontenac, W. ½, S. E. ¼, sec. 13, T. 112-13, above overflow; group of 24 mounds, 6 being elongated, and two connected by an embankment which runs about parallel with the elongated mounds. Surveyed Nov. 10, 1885. (Shown on page 173.)

Mounds between Florence and Frontenac, N. W. ¼, N. E. ¼, sec. 24,
T. 112-13; above overflow; group of 4 large tumuli, from 50 ft. to 60 ft. in diameter. (Shown at right.)

Wells creek mound, near Frontenac, S. W. 1/4, S. W. 1/4, sec. 12, T. 112-13; about 60 ft. above the creek; a curved elongated mound, broader at one end than at the other. At the wider end it is 28 ft. by 4 ft. At the middle it is 25 ft. by 3 ft. At the smaller end it is 20 ft. by 2 ft. (Shown at left.)

Lone mounds are situated as follows between Central Point
and Florence: N.W. 3/4, S.W. 3/4, sec. 30, T. 112-12, 45 ft. by 3 ft. There were formerly several mounds here. N. W. 1/4, N. E. 1/4, sec. 31, T. 112-12, 30 ft. by 2 1/2 ft. Here were formerly other mounds, but they have been destroyed by cultivation.

*Fort Sweney, S. E. 1/4, sec. 28, T. 113.-16.* Mr. Brower has given a general description of this fort in his work, "Minnesota," pp. 58 and 60, and an illustration, plate xii, where he observed (p. 67) 41 "earthworks, mounds and pits," some of which he supposed to have been made for defense against an attacking enemy, and infers that the parties were probably the Iowa, defending themselves against the Dakota prior to the final expulsion of the former. The location here given for this fort was supplied by Prof. Schmidt, its discoverer. It appears to have been in the town of Vasa, on the south side of the Cannon river, the town of Welch being on the north side of the river.

Goodhue county furnished Mr. Lewis the following specimens, now in the Mitchell collection: Twenty-four arrow-heads, 7 war-points, 6 scrapers, 4 shell beads, 3 hematite cels, 2 celts, 2 shell spoons, 2 clay vessels (1 from a mound), 2 stone hoes, 2 "chipped implements," 1 "stone paddle" (No. 1232), 1 copper ax, 1 copper spear-head, 1 perforated stone, besides broken pottery.

This county is represented in the Brower register by 423 entries, of all kinds, obtained through the co-operation and courtesy of Dr. W. M. Sweney, E. W. Schmidt and W. W. Hill.

**EARTHWORKS IN DAKOTA COUNTY.**

*The two Mendota groups.* These are on W. 1/4, N. W. 1/4, sec. 27, T. 28-23. The first group is on the village plot, mostly northwest of First street, though two are near the schoolhouse on the southeast side of First street. The other group is in the woods on the hill back of Mendota. The first group contains eight circular mounds, of which the largest, at the corner of First and E streets, is 100 ft. in diameter and 8 ft. high. Others range from 38 ft. to 56 ft. in diameter, and from 2 ft. to 4 ft. in height. The largest mound is separated from the rest. In the second group are two short oblong mounds, having widths 26 ft. and 40 ft., and lengths 50 ft. and 60 ft., respectively. This group is on the west side of the road coming into Mendota from the south. The largest circular mound is 80 ft. in diameter and 8 1/2 ft. high. (Shown on page 175.)
Mounds in South St. Paul. Three tumuli are N. E. 3/4, S. E. 1/4, sec. 34, T. 28-22, in the woods, and one is on S. E. 1/4, N. E. 1/4, of the same section, half a mile above the last, on cultivated land. One tumulus is on lot 11 of Albrecht's addition, about 25 ft. above the slough; and another, larger than any of the foregoing, 60 ft. by 3 1/2 ft., is behind the Exchange building, N. W. 3/4, S. E. 1/4, sec. 27, T. 28-22. Surveyed April, 1887.

Castle Rock. "There are 40 mounds near Castle Rock."—Brow. Note.

Greenvale, Chub Creek mounds. Several mounds are on the banks of this creek in secs. 23, 24 and 18, T. 112-20.—Geol. Sur. II, 100. (See "Rice County Earthworks").

Mounds near old Kaposa, N. E. 3/4, N. E. 1/4, sec. 21, T. 28-22. This is a group of five ordinary tumuli, on a high spur about 300 ft. above the river. This spur is covered with modern Indian graves. The largest of these tumuli is 32 ft. by 2 1/2 ft. Mounds one mile below Kaposa.

Three mounds, somewhat isolated from each other, are along the top of the bluff on the S. W. 3/4, sec. 22, T. 28-22, of which the largest is the most northerly, 42 ft. in diameter and 3 ft. high. Remains of five other small mounds are just south of the most southerly, plowed down.

Silk mounds, half a mile south of Kaposa, are on secs. 22 and 27, T. 28-22, arranged in a single row along the brow of the bluff, mostly on the land of Mr. John Silk, and partly on that of Mr. A. J. Gillette. Of this group, numbering 11, the only one which requires special note is No. 1, which is the most northerly. It is an elongated mound, running parallel with the bluff, 180 ft. long. At its northern one-third portion it swells out suddenly from 24 ft. to 42 ft. in width, the enlargement being entirely on the west side, and from 2 ft. to 2 1/2 ft. in height. This group, therefore, presents an anomaly, viz.: Enlargement on one side of an elongated mound, at the end, the enlarged part being a little more than one-third of its whole length. (Shown on following page)

Bluff mounds, are near the south end of Pickerek lake, on S. W. 3/4, S. W. 1/4, sec. 13, and S. E. 3/4, S. E. 1/4, sec. 14, T. 28-23. They are 11 in number and are much crowded, even in contact, and in one instance two are visibly connected by an embankment. In the midst of the series is one elongated mound, 42 ft. long and 30 ft. wide, its greater diameter being not precisely parallel with the line of the series, but a little oblique. As it is in contact with the adjoining mound at each end, its appearance suggests that there was not room for it, without being placed so that each end would project a little. No. 1, at the southwestern extremity of this series, bifurcates. It is wide enough to be double the diameter of the adjoining mound and its contour is circular at that end, but at the other end it was rounded off. It seems to confirm the idea that the larger elongated mounds are composed of two narrow elongated mounds, and that the narrow ones are composed of a succession of simple tumuli built into a continued embankment. Surveyed June 19, 1883. (Shown on following page)

Mounds one mile below Mendota, on lot 3, S. E. 1/4, N. W. 1/4, sec. 23, T. 28-23. This group contains 22 mounds, all simple tumuli except one, which is furnished with an elongated extension in a line almost perpen-
dicular to that of the main series. The mound itself is 30 ft. in diameter, 1 ft. high, and the extension is 127 ft. long and 1 ft. high, 20 ft. wide. Surveyed Oct. 28, 1882. (Shown on page 178.)

Black Dog group, is on E. 3/4 and S. W. 1/4, sec. 19, T. 27-23, and embraces 104 mounds. Remains of 14 others are also visible. The diagram is on the scale of 1:4,000. These are all circular tumuli except three, which are 40 ft. by 100 ft., 20 ft. by 125 ft., and 50 ft. by 125 ft., their heights being 3 ft., 1 1/2 ft. and 3 ft. While parallel with the bluff, and with the direction of the group, these elongated mounds are disposed apparently at random amongst the circular mounds. The largest tumulus is 75 ft. by 5 1/2 ft.; the smallest, 15 ft. by 1 ft., twenty-one being of the smallest diameter.

These mounds may be classified, as to diameter, as follows:
Mounds 15 ft. in diameter... 21
Mounds 18 ft. in diameter... 3
Mounds 20 ft. in diameter... 15
Mounds 25 ft. in diameter... 1
Mounds 30 ft. in diameter... 25
Mounds 35 ft. in diameter... 5

Mounds 65 ft. in diameter... 2
Mounds 67 ft. in diameter... 1
Mounds 75 ft. in diameter... 1

Mounds 1, 2, 3, 4, 5, 6 and 9 are unplowed. Remains of mounds are indicated by x. Mound No. 7 has been opened. (Shown on page 179.)
It is very noticeable in this tabulation that the number of mounds from 15 to 20 feet in diameter, which may be considered the unit of dimension, while prevailing over any other within equal limits, is about equal to those from 30 ft. to 40 ft., which are the doubles of that unit, and that above 40 ft. the number of mounds suddenly drops off, the larger mounds apparently having no numerical ratio as to size or number. Some allowance must be made for the flattening and widening of these mounds since their construction, and for the conventional tendency of the surveyor, when estimating, or even surveying them as to diameter, to choose round numbers in noting the dimensions in the field-books. These are the actual figures of the observer (Mr. Lewis), and they cannot vary materially from the facts. One of the large mounds is isolated from the series. Surveyed Sept. 19, 1881. Compare Geol. Sur. II, 100.

Nininger mounds, N. E. ¼, sec. 18, T. 115-27. There were three small mounds, 20 ft. to 30 ft. in diameter, on cultivated ground (June 21, 1883), but they have since been destroyed.

According to E. G. Squier ("Serpent Symbol," etc., published in 1851), Mr. William Pidgeon "states that near the junction of the St. Peter's with the Mississippi river are a large number of mounds and monuments, consisting, 1st, of a circle and square in combination, as at Circleville, in Ohio; the sole difference being that there is a large truncated mound in the center of the square as well as at the center of the circle, with a platform around its base; 2nd, near by the effigy of a gigantic animal resembling
the elk, in length 195 feet; 3rd, in the same vicinity, a large conical mound, 300 feet in diameter at the base and 30 feet in height, its summit covered with charcoal. This mound is surrounded by 120 smaller mounds disposed in the form of a circle. Twelve miles to the westward of these, and within sight of them, is a large conical truncated mound, 60 ft. in diameter at the bottom and 18 ft. high, built upon a raised platform or bottom. It is surrounded by a circle 365 ft. in circumference. Entwined around the circle, in a triple coil, is an embankment in the form of a serpent, 2,310 ft. in length. This embankment at the center of the body is 18 ft. in diameter, but diminishes toward the head and the tail in just proportion. The elevation of the head is 4 ft., of the body 6 ft., of the tail 2 ft. The central mound is capped with blue clay, beneath which is sand mixed with charcoal and ashes." This is represented by the accompanying figure, after Squier.—Hill Rec.

It is but fair to the reader to state that the earthworks here represented have not been identified by later observers, and that this description, as well as much of the other descriptions of Mr. Pidgeon, as published in his volume, "Traditions of Deceoda," while having sometimes a small basis of fact, are so enlarged by fiction, that they must be classed with the tales of La Hontan and Munchausen.

Specimens from this county, collected by Mr. Lewis, now included in the Mitchell collection, are 11 lance and arrow heads, 2 scrapers, 3 war-points and 3 other stone implements. In this county Mr. Brower made no collections.

**EARTHWORKS IN CARVER AND SCOTT COUNTIES.**

**Mounds at Little Rapids,** on S. E. 1/4, S. W. 1/4, and S. W. 1/4, S. E. 1/4, sec. 31, T. 115-23. This group contains 40 mounds, situated about 140 ft. above the river, all circular but one, which is oblong. The largest tumulus is 65 ft. by 5 ft. Another is 60 ft. by 4 ft. Another is 58 ft. by 8 1/2 ft. The oblong mound is 66 ft. long, 25 ft. wide and 3 ft. high.

These circular mounds may be classified as follows, according to width:

<table>
<thead>
<tr>
<th>Mounds</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 ft.</td>
<td>13</td>
</tr>
<tr>
<td>22 ft.</td>
<td>1</td>
</tr>
<tr>
<td>25 ft.</td>
<td>1</td>
</tr>
<tr>
<td>28 ft.</td>
<td>1</td>
</tr>
<tr>
<td>30 ft.</td>
<td>5</td>
</tr>
<tr>
<td>32 ft.</td>
<td>1</td>
</tr>
<tr>
<td>34 ft.</td>
<td>1</td>
</tr>
<tr>
<td>35 ft.</td>
<td>4</td>
</tr>
<tr>
<td>36 ft.</td>
<td>3</td>
</tr>
<tr>
<td>52 ft.</td>
<td>1</td>
</tr>
<tr>
<td>56 ft.</td>
<td>1</td>
</tr>
<tr>
<td>58 ft.</td>
<td>1</td>
</tr>
<tr>
<td>60 ft.</td>
<td>1</td>
</tr>
<tr>
<td>65 ft.</td>
<td>1</td>
</tr>
</tbody>
</table>

Surveyed Sept. 21, 1889. (Shown on page 181.)

**One-fourth mile south of Little Rapids,** on S. E. 1/4, sec. 31, T. 115-23, and N. E. 1/4, sec. 6, T. 114-23. This group contains 32 mounds, all circular except one (No. 8), which is oval or elliptical, its width varying from 26 ft. to 37 ft., its greatest height being at the center, 3 ft. The largest of this group is 96 ft. by 7 ft. Two others are over 80 ft. in diameter, one is 76 ft. and one 74 ft. These, with several other large tumuli, are in the general line of bearing of the group, but still usually separated from their nearest neighbors by intervals of greater length than most of the inter-mound spaces. The smallest tumulus is 20 ft. in diameter. This group is about 140 ft. above the river. Surveyed Sept. 21, 1889. (Shown on page 182.)

**Mounds at Chaska,** W. 1/2, N. W. 1/4, sec. 9, T. 115-23,
Mounds of the Minnesota river, Eagle Creek mounds, on S. E. ¼ of sec. 7, T. 115-21, at the mouth of the creek. These mounds can be divided geographically into three subgroups. They are all south of the railroad. Subgroups No. 1 and No. 2 are on the west side of the creek, and subgroup No. 3 on the east side and a little further south.

In subgroup No. 1 are 9 mounds, about 10 ft. above the creek. The largest is 60 ft. in diameter, 3 ft. high; the smallest 22 ft. by 1 ft. high.

Subgroup No. 2 embraces 19 mounds, of which two are elongated. They are crowded, on a low bluff of the creek and about 12 ft. above it. The largest, Nos. 10 and 12, are respectively 62 ft. and 64 ft. in diameter.
Subgroup No. 3, containing 19 mounds, is about 8 ft. above the creek, and about 12 or 15 mounds have been plowed away, just traceable. These mounds are all circular, but one (No. 8) has an extension 24 ft. wide, 1 ft. high, running 124 ft. toward the south. The largest of this group is 64 ft. by 3½ ft., and the smallest 20 ft. by 1 ft. Surveyed Nov. 10, 1884.

Mounds on N. 1-2, S. E. 1-4, sec. 2, T. 115-22. This group embraces 50 mounds, all circular except four, and all of average size. The largest is 56 ft. by 2½ ft., and the smallest is 22 ft. by 1 ft. Surveyed Nov. 10 and 11, 1884. (Shown on page 184.)

Mounds of the Minnesota river, N. ½, S. E. ¼, sec. 20, T. 115-23. A group of 22 mounds, all circular but two, which are simple elongated mounds. The largest circular mound is 68 ft. in diameter and 4 ft. high. They are from 25 ft. to 35 ft. above the river. This group is close to the next. Indeed, it might be said to be a part of the next, as but 400 feet separate No. 22 from No. 33 of the next. Surveyed Sept. 23, 1889. (Shown below.)

Mounds of the Minnesota river, on S. W. ¼, S. E. ¼, sec. 20, T. 115-23. This group, which consists of 33 tumuli, is from 60 ft. to 80 ft. above the river, and its No. 33 is about S. 40 degrees W., 300 ft. from No. 22 of the last group. The largest mound is 80 ft. in diameter and 5½ ft. high. Another,
which is 70 ft. in diameter, is also 5½ ft. high. Others 54 ft. and 60 ft. in diameter are respectively 4 ft. and 5 ft. in height. The smallest is 18 ft. Surveyed Sept. 23, 1889. (Shown below.)

_Mounds near Merriam Junction._ S. ¼, S. W. ¼, sec. 29, T. 115-23. Here is an assemblage of 44 mounds, of which only one is an exception to the ordinary form of the tumulus. The main part of this group is about 35 ft. above the bottomland. The elongated mound is 115 ft. long, 38 ft. wide and 2½ ft. high. The largest tumulus is 72 ft. wide and 5 ft. high, standing isolated from the group. Surveyed Aug. 25, 1887. (Shown on page 186.)
MOUNDS OF THE MINNESOTA RIVER.

At some spot in Scott county, major Long observed mounds on the right bank of the Minnesota, "some of which were of large size; they occupy a considerable extent of the prairie upon which they are situated. In one part they formed a line of about half a mile in a direction parallel with the river, from which they were distant about 300 yards. The mounds were erected at a distance of about 12 to 15 yards asunder, and when observed from one end of the line, presented the appearance of a ridge or rampart."

Mounds of the Minnesota river: "The Steele mounds," on N. E. 1/4 sec. 5, and N. W. 1/4 sec. 4, T. 115-22. This group consists of circular tumuli with but two exceptions—Nos. 35 and 59—though the group numbers 111. The former is 85 ft. by 50 ft., 2½ ft. high. The latter is 120 ft. by 60 ft. by 4 ft. high. The ground on the north side slopes gradually to a marsh, but toward the south it is nearly a plain. The largest tumulus is 90 ft. by 8½ ft., standing isolated from the line of extension of the main series.

These tumuli may be classified, according to width, as follows:

| Mounds 20 ft. in diameter | 9 | Mounds 40 ft. in diameter | 6 |
| Mounds 21 ft. in diameter | 1 | Mounds 41 ft. in diameter | 1 |
| Mounds 22 ft. in diameter | 3 | Mounds 42 ft. in diameter | 2 |
| Mounds 24 ft. in diameter | 1 | Mounds 43 ft. in diameter | 3 |
| Mounds 25 ft. in diameter | 6 | Mounds 44 ft. in diameter | 4 |
| Mounds 26 ft. in diameter | 5 | Mounds 45 ft. in diameter | 6 |
| Mounds 28 ft. in diameter | 2 | Mounds 46 ft. in diameter | 1 |
| Mounds 29 ft. in diameter | 1 | Mounds 49 ft. in diameter | 2 |
| Mounds 30 ft. in diameter | 12 | Mounds 50 ft. in diameter | 1 |
| Mounds 31 ft. in diameter | 2 | Mounds 51 ft. in diameter | 1 |
| Mounds 32 ft. in diameter | 6 | Mounds 52 ft. in diameter | 1 |
| Mounds 34 ft. in diameter | 2 | Mounds 56 ft. in diameter | 2 |
| Mounds 35 ft. in diameter | 4 | Mounds 58 ft. in diameter | 2 |
| Mounds 36 ft. in diameter | 4 | Mounds 60 ft. in diameter | 4 |
| Mounds 38 ft. in diameter | 2 | Mounds 90 ft. in diameter | 1 |
| Mounds 39 ft. in diameter | 1 |

Although the largest number of these tumuli have diameters about 30 ft., there is such a variety in their sizes that little or no system of structure can be deduced from the table. Surveyed Oct. 13 and 14, 1882. (Shorn on page 188.)

Mounds of the Minnesota river: The "Pond mounds," N. W. 1/4, N. W. 1/4, sec. 5, T. 115-22. These are about 25 ft. above the river. These are all tumuli about 30 ft. in diameter, but varying from 20 ft. to 88 ft. The group contains five large mounds, whose diameters are 70 ft., 70 ft., 75 ft., 82 ft., and

Swamp.

Swamp.
88 ft., with respective heights, 4\(\frac{1}{2}\) ft., 6 ft., 4\(\frac{1}{2}\) ft., 5\(\frac{1}{2}\) ft., and 6\(\frac{1}{2}\) ft. The group altogether numbers 28. Four of the small mounds, 20 ft. to 24 ft. in diameter, are connected by a continuous, nearly straight embankment, 16 ft. wide and 1 ft. high. The large mounds are not mingled with the small mounds, but are either wholly isolated or adjoin each other at the east end of the line. (Shown on insert opp.)

Shakopee mounds are north of First street, Shakopee, N. \(\frac{1}{2}\), sec. 6, T. 115-22, about 20 ft. above the bottomland; 28 in number, all circular and of medium size, the largest being 52 ft. by 2\(\frac{1}{2}\) ft. and the smallest 18 ft. by 1 ft. Surveyed Oct. 12, 1882, and Nov. 11, 1884. (Shown above.)

On N. \(\frac{1}{2}\), N. E. \(\frac{1}{4}\), sec. 4, T. 115-22, at about 35 ft. above the river, is an enclosure associated with six circular mounds. The tumuli are of ordinary size, the largest being 35 ft. in diameter and 21\(\frac{1}{2}\) ft. high. The width of the embankment which forms the enclosure varies from 17 ft. to 18 ft. It has a narrow opening on the north side, facing the river. The shape of the enclosure is oblong, the area enclosed being about 50 ft. by 90 ft. Surveyed Sept. 8, 1889. (Shown on page 189.)

Mounds of the Minnesota river, on the N. W. \(\frac{1}{4}\), N. E. \(\frac{1}{4}\), sec. 29, T. 115-23, is a group of three mounds on a bluff about 100 ft. above the river. Surveyed Sept. 23, 1889. (Shown opposite.)

On the E. \(\frac{1}{2}\), N. W. \(\frac{1}{4}\), sec. 18, T. 114-23, are two other mounds, the larger being 45 ft. by 2\(\frac{1}{2}\) ft., about 100 ft. above the river. Surveyed Sept. 24, 1889.
Mounds opposite Chaska, S. E. \frac{1}{4}, S. E. \frac{1}{4}, sec. 9, and S. W. \frac{1}{4}, sec. 10, T. 115-23, arranged along the bluff facing the river, essentially in a single line, varying somewhat according to the sweep of the bluff, are 69 tumuli, about 100 ft. above the bottom, extending in an air-line, from one end of the series to the other, 3,400 ft. They are about average for size, the largest being 55 ft. by 6 ft., and the smallest 18 ft. by 1 ft. Nos. 23 and 24, which are respectively 24 ft. and 32 ft. in diameter, are connected by an embankment 12 ft. wide and 1\frac{1}{4} ft. high. Nos. 29 and 30 are in contact. Surveyed Oct. 11, 1882. (Shown on insert opposite.)

Mounds and enclosure near Little Rapids, N. E. \frac{1}{4}, N. E. \frac{1}{4}, sec. 31, and W. \frac{1}{2}, N. W. \frac{1}{4}, sec. 32, T. 115-23, about 35 ft. above the bottom. This group numbers 29 tumuli. Besides the embankment making the enclosure, which is generally about 12 ft. wide, there are six elongated mounds which are from 22 ft. to 24 ft. wide. Nos. 6 and 7 are at least partly composed of stone. One mound, No. 29, is flat-topped, the top being 28 ft. in diameter and the bottom 50 ft., 3 ft. high. The ends of the enclosure overlap 28 ft. The width of the embankment varies from 8 ft. to 13 ft. Surveyed Aug. 24, 1887. (Shown below.)

Mounds near Blakeley. There are 4 subgroups. The first is at S. W. cor. S. E. \frac{1}{4}, N. E. \frac{1}{4}, sec. 8, T. 113-25. These are on a narrow ridge, a spur of the terrace. They are five, but Nos. 2 and 3 are connected by a narrow embankment 12 ft. wide and 1 ft. high. No. 1 is about 80 ft. above the river and 35 ft. above No. 4, with a deep ravine on each side.

The second subgroup comprises only a lone mound, 35 ft. by 2\frac{1}{2} ft., at S. E. cor. of S. E. \frac{1}{4}, N. E. \frac{1}{4}, sec. 8, T. 113-25; 100 ft. above the river.

The third subgroup is on S. E. \frac{1}{4}, S. W. \frac{1}{4}, sec. 8, T. 113-25, about 100 ft. above the river. This also is on a spur of the bluff, with the Minnesota river on the northwest. Here are 4 circular mounds of small diameter and height, of which Nos. 2 and 4 have been excavated. No. 1 has a long extension parallel with the ridge, 102 ft. long and 1\frac{1}{2} ft. high. Another singular double embankment almost makes an enclosure. The two parts are in contact at one end but separate somewhat on passing across the spur, their length being about 90 ft. At their separated ends these embankments are still close to-
gether. They run to blunt points, but one curves at the extremity a little toward the other. Thus they simulate the mandibles of a rapacious bird.

The fourth subgroup is on N. W. 1/4, S. E. 1/4, sec. 8, T. 113-25, and embraces five simple tumuli, arranged in quincunx, about 100 ft. above the river.

In *Science*, vol. xiv, p. 350, is a description of a fine clay pipe obtained by T. H. Lewis from Mr. Andrew Wiest, of Blakeley. It was 5 in. in diameter and 3 1/2 in. deep; the top of the rim 4 in. in diameter, with a notched edge. The sides and bottom were ornamented with fine incised lines. It was made of pulverized granite and clay.

*Minnesota river mounds*, N. E. 1/4, S. W. 1/4, sec. 18, T. 113-25. This group embraces six circular mounds, but one has an extension parallel with the ridge on which they are located, 105 ft. long and 16 ft. wide. Nos. 5 and 6 are connected by a similar embankment, but this connection, though straight and uniform, touches No. 5 as a tangent instead of approaching it as a radius. This group is about 100 ft. above the river between a creek and the railroad. Surveyed Sept. 26, 1889.
Minnesota River mounds, on N. E. ¼, S. W. ¼ and N. W. ¼, S. E. ¼, sec. 18, T. 113-25. This group embraces 28 mounds, of which six are elongated, and two are connected by a direct narrow embankment. They are about 100 ft. above the river. Surveyed Nov. 8, 1889.

Minnesota River mounds, on S. W. ¼, S. W. ¼, sec. 18, T. 113-25, is a group of 20 mounds of common sizes, all circular, situated about 100 ft. above the river. Surveyed Sept. 26, 1889. (Shown on following page, top.)

Minnesota River mounds on N. W. ¼, N. W. ¼, sec. 19, T. 113-25. This group embraces three mounds, of which one is elongated, with length 112 ft. and width 16 ft., height 1½ ft., situated on the edge of the bluff about 100 ft. above the river. Surveyed Sept. 26, 1889. (Shown on following page.)

Lone mounds are situated as follows: S. W. ¼, S. W. ¼, sec. 19, T. 113-25, about 150 ft. above the river bottomland; 30 ft. in diameter.

On the N. W. ¼, N. W. ¼, sec. 30, T. 113-25, about 60 ft. above the river bottomland; 18 ft. in diameter.

On the N. W. ¼, N. W. ¼, sec. 31, T. 113-25, about 160 ft. above the river; 30 ft. in diameter, 2 ft. high, 30 ft. from the river bluff.

On the S. W. ¼, N. W. ¼, sec. 31, T. 113-25, about 80 ft. above the river, 18 ft. in diameter, 1 ft. high, on a narrow spur of the bluff.

Minnesota River mounds, one and a half miles northeast of Henderson, at 150 ft. above the river, along the bluff are 62 mounds, all circular, varying in diameter from 18 ft. to 75 ft. (6 ft. high). Most of the large mounds are not mingled with the small ones, but are either outside the general line or are assembled by themselves. This group may be analyzed, as to diameter, as follows:

- Mounds 18 ft. in diameter ............... 6
- Mounds 20 ft. in diameter ............... 10
- Mounds 24 ft. in diameter ............... 1
- Mounds 30 ft. in diameter ............... 6
- Mounds 32 ft. in diameter ............... 3
- Mounds 34 ft. in diameter ............... 2
- Mounds 35 ft. in diameter ............... 9
- Mounds 40 ft. in diameter ............... 6
- Mounds 42 ft. in diameter ............... 1
- Mounds 50 ft. in diameter ............... 2
- Mounds 54 ft. in diameter ............... 2
- Mounds 55 ft. in diameter ............... 1
- Mounds 60 ft. in diameter ............... 6
- Mounds 64 ft. in diameter ............... 1
- Mounds 65 ft. in diameter ............... 1
- Mounds 66 ft. in diameter ............... 1
- Mounds 75 ft. in diameter ............... 1

There may be observed, in the foregoing, a principle which appears in connection with other large groups, viz.: a prevalence of mounds from 18 ft. to 20 ft. in diameter, and at the multiples of these units, i.e., at 35 ft. to 40 ft., and at 60 ft.

Surveyed Oct. 3, 1889. (Shown on insert opposite.)
This group embraces 5 effigies and 4 embankments. The effigies represent birds with wings spread like a hawk in sailing. The rear extremity of their bodies terminates rectangularly, the same as three of the elongated embankments. Yet one of the last has one termination that runs to a point that turns a little to one side, suggesting the form of a dentist's gouge. Another embankment has rounded terminations like those of most other localities, and this one seems to have some relation to one of the effigies, since it begins near the end of the tail and extends nearly parallel with it 260 ft., being 18 ft. wide and 1 1/2 ft. high. The other embankments with rectangular ends are 105 ft. and 100 ft. long, 18 ft. wide and respectively 1 1/2 ft. and 2 ft. high, nearly parallel and in the same line of extension. The ditch which surrounds Nos. 8 and 9, the elongated rectangular embankments, is 3 ft. wide at the bottom. The ditch round No. 7, the dentist's gouge, is over 5 ft. wide. Similar ditches surround the effigies. On the effigy mound No. 6 is a stump of a tree 3 ft. in diameter; on No. 4 are two stumps 2 ft. in diameter, and on No. 3 are three oak stumps from 2 ft. to 2 ft. 3 inches in diameter. These effigies are about 2 ft. high at the point of the body between the wings, and have bodies 15 ft. to 18 ft. wide and about 2 ft. high.

The following new elements, therefore, are observable in this group:
1. Effigy mounds.
2. Rectangular terminations of the elongated mounds or embankments.
3. A rectangular embankment running to a point which is turned to one side.

It is most reasonable, so far as their forms and relative positions indicate their relations, to consider these mounds to be of the same date and origin, for the following reasons:
1. The rectangular embankments are not essentially dissimilar from those with circular ends.
2. The rectangular termination pertains to three of the embankments and to the effigies.
3. The embankment with circular ends appears to be associated with the body of one of the effigies, and in its line of extension.

In the light of the intimate association of these embankments, or elongated mounds, with the circular tumuli, these considerations tend toward the reference of the round mounds and embankments to the same age and origin as the effigy mounds. (Shown on page 195.)

Surveyed August 30, 1883.

In these counties Mr. Lewis collected 1 chipped ax, 1 clay vessel, 4 arrow-heads, and 1 celt. Mr. Brower recorded nothing from these counties.
EARTHWORKS IN SIBLEY AND NICOLLET COUNTIES.

Mounds near Faxon, S. W. ¼, N. W. ¼, sec. 35, T. 114-25; about 90 ft. above the bottomland; group contains 11 mounds, situated on a spur of the bluff, of which four are elongated. The largest tumulus is 35 ft. by 3 ft. The elongated mounds are about 20 ft. wide and 1 ft. to 1½ ft. high. Surveyed Sept. 27, 1889.

Mounds at Faxon, (a) N. W. ¼, N. W. ¼, sec. 4, T. 113-25; about 100 ft. above the river. This group consists of one embankment 287 ft. long, 18 ft. wide, and 1½ ft. high, and two small tumuli, the former having an angle at one-third of its length from its south end. (Shown on page 196.)

(b) N. E. ¼, N. W. ¼, sec. 4, T. 113-25; a lone mound about 100 ft. above the river. (Shown on following page.)

(c) N. E. ¼, sec. 5, T. 113-25; about 150 ft. above the river; a group of 90 mounds, of which three are elongated. This large group consists mainly of small tumuli arranged along

the bluff from 20 ft. to 110 ft. back from the brink. They may be classified according to their diameters

as follows, including the elongated mounds:
Minneapolis River mounds—Faxon: S. E. ¼, N. W. ¼, and N. E. ¼, S. W. ¼, sec. 5, T. 113-25; about 150 ft. above the river. Group of 13 mounds, of which one is elongated. These average larger than the large group at Faxon, probably about 30 ft. in diameter. No. 1 has been excavated. Surveyed Nov. 7, 1889.

Mounds near High Island creek, N. W. ¼, sec. 26, T. 113-26. The top of the bluff is about 150 ft. above the Minnesota river. The slide that carried away a part of No. 1 must have been made by the creek when it ran near the foot of the bluff; for the dirt has been carried away by the creek many years ago, and now there is a smooth flood-plain, and the creek is some 250 yards from the foot of the bluff. This is undoubtedly Pidgeon’s “Black Tortoise” group.* It embraces 52 mounds, of which 4 are elongated. Nos. 5 and 36 have some resemblance to the form of a turtle.

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*On this “Black Tortoise” group compare “Traditions of Decodah and Antiquarian Researches,” by William Pidgeon, pp. 50 and 79; also the strictures of T. H. Lewis on the general unreliability of this work, American Journal of Archaeology, January, 1886.
with its head projecting. Pidgeon's figures are wholly unlike the facts as given in the accompanying diagram, both as to the positions, the number, and the shapes of the mounds. Nos. 10, 32 and 28 are large mounds, having diameters 62 ft., 80 ft., and 95 ft. respectively, and heights 5½ ft., 5½ ft. and 6 ft. Surveyed Oct. 6, 1884.
Dr. H. J. Seigneuret, of Henderson, informed Mr. Hill that an old Indian told him that a great battle took place between the Sioux and the Chippewa long ago on the spot of these mounds, and that this has given it the name with the Indians of "prairie of the battle."—*Hill Rec.*

**Minnesota River mounds,** (a) S. W. 1/4, N. W. 1/4, sec. 10, T. 111-26; about 22 ft. above the bottomland. This is a group of three conical tumuli, the largest being 45 ft. by 31/2 ft. Surveyed Oct. 4, 1889.

(b) W. 1/2, S. W. 1/4, sec. 10, T. 111-26; about 16 ft. above the bottomland, 11 tumuli in a scattered group.

(c) N. E. 1/4, N. E. 1/4, sec. 9, T. 110-26; about 30 ft. above the river: "Old Traverse des Sioux mounds," a group of six tumuli, about 30 ft. above the river. Surveyed Oct. 1, 1889.

(d) N. E. 1/4, N. E. 1/4, sec. 16, T. 110-26; between Traverse des Sioux and St. Peter; group of 11 mounds, one being elongated. Nos. 2, 3 and 4 are partially dug away. It is 600 ft. from the river to the edge of the bluff, and 195 ft. further to the nearest mound. Surveyed Sept. 7, 1883.

(e) S. W. 1/4, N. W. 1/4, sec. 15, T. 110-26; about 25 ft. above the bottomland; between Traverse des Sioux and St. Peter. Surveyed Oct. 1, 1889.

**Mounds near Fort Ridgely,** center of N. E. 1/4, sec. 6, T. 111-32;
like the pyramids of Egypt.” (Shown below.)

Mr. Upham has remarked: “Several small artificial mounds of the ordinary dome-like form, reported to have been grave mounds of the Sioux, formerly existed within an eighth of a mile north and northwest of Fort Ridgely, but were removed for grading.”

J. N. Nicollet says: “One mile from Traverse des Sioux, and on the bank of the river, are the
remains of an Indian camp, the circular area of which is still indicated by the heaps of stones round each lodge. As this indicates the existence of a custom no longer in use among the Ndakotahs, or Sioux, who have occupied the country for a long time back, it is difficult to assign the true origin of this relic. The Sissetons, the fourth tribe of the Ndakotahs, on whose land these relics are found, have no tradition of them.” (Nic. Rep. p. 12.)

A small broadax, about one-third the length and weight of an ordinary carpenter’s broadax, was found recently near Swan lake. It was in a grave, along with some human and dog bones, stone arrowheads and other articles, and was discovered by a horse breaking through. According to Mr. Louis Robert, as stated by Mr. Thomas Hughes of Mankato, a log building was formerly in existence at Traverse des Sioux, constructed of hewn logs, which were secured in place by vertical stakes, four at each corner of the building, two inside and two outside. No other instance of such construction has been known in the country. The building was taken down in the early fifties. It has been suggested that this tool may have taken part in the heaving of the logs. If so, it indicates that this ax was once the property of the missionaries when they had a station at Traverse des Sioux.

MCDONALD COUNTY.

In the Hill records is a letter from Mr. L. G. Simons, dated Jan. 4, 1868, in which is the following statement: “In my surveys in this county I have seen nothing that has the appearance of earthworks of that description sufficient to investigate closely, although I have seen some singular formations of earth.” Since that date no earthworks have been recorded in this county.

EARTHWORKS IN RENVILLE COUNTY.

Mounds near Three-mile creek. S. E. ¼, sec. 27, T. 113-33, about 100 ft. above the bot omland of the Minnesota river, on cultivated land. This is a group of nine tumuli loosely distributed along the bluff, the largest being 54 ft. wide and 3 ft. high, there being two of this size. Surveyed Nov. 7, 1887.

Mounds 2 1-2 miles above Hawk creek, N. W. ¼, N. E. ¼, sec. 19, T. 115-38, about 90 ft. above the river. This group embraces three mounds, of which one is broad-elongated. Surveyed Oct. 25, 1887.

Group near the mouth of Beaver creek, (a) west side, N. E. ¼, N. E. ¼, sec. 28, T. 113-35, on cultivated land, about 100 ft. above the river. The group contains three small mounds, one being elongated.

(b) S. ½, N. E. ¼, sec. 27, east side, about 90 ft. above the bottomland. This group embraces but two tumuli, one of which has a short extension 16 ft. wide and 1 ft. high. (Shown on following page.)
In Renville county the following *lone mounds* have been noted and measured, *viz.*:

Six miles below Birch Cooley, S. W. ¼, S. W. ¼, sec. 17, T. 112-33, about 130 ft. above the river; 42 ft. by 4½ ft.

Two and a half miles below Birch Cooley creek, N. E. ¼, sec. 10, T. 112-34, about 125 ft. above the bottomland; 25 ft. by 1½ ft.

Two miles below Birch Cooley creek, N. E. ¼, N. W. ¼, sec. 10, T. 112-34, about 125 ft. above the bottomland; 30 ft. by 2 ft.

Three quarters of a mile west of Birch Cooley creek, S. E. ¼, N. W. ¼, sec. 32, T. 113-34, about 100 ft. above the bottomland; 30 ft. by 2 ft.

Opposite Yellow Medicine, N. E. ¼, N. E. ¼, sec. 19, T. 115-38, about 90 ft. above the river; 46 ft. by 2½ ft.

Opposite Yellow Medicine, W. ¼, N. W. ¼, sec. 20, T. 115-38; about 90 ft. above the bottom; 50 ft. by 2½ ft.

Opposite Yellow Medicine, S. E. ¼, S. W. ¼, sec. 18, T. 115-38; about 70 ft. above the bottomland; a lone, broad-elongated mound; 66 ft. by 36 ft. by 2½ ft.

**Pomme de Terre River mounds,** (a) N. W. ¼, N. W. ¼, sec. 5, T. 121-42; about 80 ft. above the bottomland, on cultivated land. Group contains 6 tumuli, the largest two being Nos. 3 and 2, which are respectively 60 ft. and 70 ft. in diameter. Nos. 1 and 2 have been excavated. Surveyed May 8, 1894.

(b) S. E. ¼, S. E. ¼, sec. 31, T. 122-42, about 70 ft. above the bottomland; two tumuli, each 65 ft. in diameter; one 3½ ft. and the other 3 ft. in height.

Mr. George B. Wright has reported a single mound "a few rods northwest of the ¼ sec. corne between secs. 14 and 15, T. 122-39," 10 ft. high. — *Hill Rec.*

Mr. C. J. Wright says those mounds in S. E. ¼, sec. 31, T. 122-42, and in N. W. ¼, sec. 5, T. 122-42
on the west bank of the Pommé de Terre river, "were round and averaged about 4 feet high and 25 feet broad. I dug into one and found a few skulls and bones (human), also big bones of buffalo, and ashes, and a very little charcoal, or what I took for charcoal."—Hill Rec.

There is a one mound which is flat-topped, S. W. ¼, S. W. ¼, sec. 32, T. 122-42, about 70 ft. above the bottomland, having dimensions 40 ft. by 24 ft. by 2 ft. Surveyed May 8, 1894.

Mounds S. E. of Minnesota Falls, (a) one mile S. E. of the Falls, S. E. ¼, S. W. ¼, sec. 12, T. 115-39. Here are two tumuli, one being flat-topped and having dimensions 60 ft. by 30 ft. by 2½ ft., about 85 ft. above the river.

(b) 1½ mile S. E. of the Falls, N. W. ¼, N. E. ¼, sec. 13, T. 115-39. On a roll in the prairie, about 100 ft. above the river. Six tumuli compose this group. The largest is 60 ft. by 5 ft.

There is a lone mound, S. E. ¼, N. E. ¼, sec. 13, T. 115-39, one and one-half miles S. E. of Minnesota Falls, on a high prairie. It is 45 ft. by 3½ ft. There is another lone mound opposite Minnesota Falls on S. E. ¼, N. W. ¼, sec. 12, T. 115-39. Its dimensions are 60 ft. by 3½ ft. It stands about 100 ft. above the river.

Mounds about a mile above Granite Falls, (a) S. W. ¼, N. E. ¼, sec. 28, T. 116-39; about 90 ft. above the river. Group contains three mounds, of which two are elongated. The tumulus has the dimensions 32 ft. by 1½ ft. Surveyed Oct. 14, 1887.

(b) N. ½, S. E. ¼, sec. 28, T. 116-39; about 90 ft. above the river. This group contains 12 mounds of which one is elongated. (Shown on following page.)

Mounds near the old Lac-qui-Parle mission, S. E. ¼, N. W. ¼, sec. 13, T. 118-42, about 85 ft. above the river. This group embraces 3 mounds, of which one is elongated and flat-topped, the base being 65 ft. by 52 ft., the top 30 ft. by 20 ft., and 4 ft. high. Surveyed Sept. 23, 1887.

"This is probably the knoll mentioned by Mr. Riggs as being on a hill east of fort Renville. It is also the point from which Featherstonhaugh got his charming view of Lac-qui-Parle and vicinity, for at no other point on the north side of the river can the view be had. There are no traces of the Renville fort to be found."—Lewis. Compare S. R. Riggs, Minn. Hist. Col., vol. 1, p. 150.

"They were north of an old mission that was destroyed by the Sioux in the war of 1862-3."—C. J. Wright, in Hill Rec., Jan. 24, 1871. (Shown on second page following.)

There is a lone mound, N. W. ¼, S. W. ¼, sec. 13, T. 118-42; 40 ft. by 2½ ft., on cultivated land.

Chippewa River mounds, (a) S. ¼, S. E. ¼, sec. 23, T. 118-41; about 40 ft. above cultivated bottom-land. Two tumuli compose this group, the larger being 50 ft. by 3 ft. Surveyed Oct. 11, 1887.
(b) N. W. ¼, N. W. ¼, sec. 11, T. 118-41, east side of the river. Two tumuli also compose this group, the larger being 54 ft. by 3½ ft. These are about 25 ft. above the river. (Shown on page 207.)

There is also a lone mound, east side of the Chippewa river, N. W. ¼, S. W. ¼, sec. 11, T. 118-41; about 100 ft. above the river, on cultivated land, having dimensions 52 ft. by 3 ft. Surveyed Oct. 11, 1887.

**Other lone mounds are situated as follows:**

N. W. ¼, N. W. ¼, sec. 18, T. 116-39; 5 miles above Granite Falls, about 100 ft. above the bottomland; 32 ft. by 2 ft.

S. ½, S. W. ¼, sec. 21, T. 116-39; 2 miles above Granite Falls, about 100 ft. above the river; 26 ft. by 1½ ft.

S. W. ¼, S. E. ¼, sec. 21, T. 116-39; 2 miles above Granite Falls on a ridge in the prairie, on cultivated land; 45 ft. by 2½ ft.
KANDIYOHNI AND MEEKER COUNTIES.

S. W. ¼, N. E. ¼, sec. 29, T. 118-41, between old Lac-qui-Parle mission and Montevideo, on a knoll about 110 ft. above the bottomland; 40 ft. by 21½ ft.

S. W. ¼, N. W. ¼, sec. 33, T. 118-41, between old Lac-qui-Parle mission and Montevideo, about 80 ft. above the bottomland; 35 ft. by 2 ft.

N. E. ¼, S. E. ¼, sec. 18, T. 117-40, at Montevideo, about 25 ft. above the bottomland, flat-topped; 20 ft. by 50 ft. by 3 ft.

According to L. R. Moyer, a granite stone hammer was found at Montevideo in the summer of 1881. It is about 8 inches long and finely worked.—Hill Rec.

EARTHWORKS IN KANDIYOHNI AND MEEKER COUNTIES.

Green Lake mounds, near the east shore, on secs. 29 and 30, T. 121-33, on a level elevation overlooking a marsh toward the east and the lake toward the west. This group numbers 69, of which 24 are elongated mounds or embankments, and 20 to 25 ft. above the lake. They have a general parallelism with the adjoining bluffs. Toward the southeast from this group there are probably more mounds, not enumerated, since a cornfield covered the area when the survey was made. Grouped roughly there are four parallel belts, ranging about north and south, except that the most eastern belt, composed of elongated embankments, has a bearing more easterly, conformable to the direction of the bluff of the marsh. The circular mounds prevail in the western and northern part of the group, and the elongated in the southern and eastern. Circular mounds are wanting in the most easterly belt, but are generally mingled with the elongated mounds elsewhere, and occupy the field alone in the northern part of the westerly belts. The elongated mounds, as elsewhere generally, are of two sizes, without intermediate dimensions, i.e., (1) having a width about the same as the diameter of the small tumuli, and (2) about twice that width, the lengths being indefinite, but the narrower being the longest, the greatest length being an embankment 468 ft. long, running straight the most of its extent, but having a slight change of direction about 90 ft. from its northwestern extremity.
MOUNDS AT LAKE KORONIS.

One of the large mounds of this group has been dug into (No. 44), and within was found, as reported, a hollow chamber, dome-shaped, about three feet high, with a flat floor, which was on a level with the base of the mound. Mound No. 12 was also excavated, but it appears that no bones nor implements were found in either. (Upham.)

The large mounds are not noticeably isolated from the rest of the group. Surveyed Sept. 14, 1881.

Norway Lake mounds. A group is found on N. E. 1/4, N. W. 1/4, sec. 7, T. 121-35, about 25 ft. above the lake where the land slopes both ways from the mounds. One is elongated, 81 ft. by 26 ft.; and one is flat-topped, 48 ft. across the base, 3 ft. high and 18 ft. across the top. The rest would average about 24 ft. in diameter. Surveyed July 14, 1891.

There is also a lone mound 60 ft. in diameter and 71/2 ft. high on the S. 1/2, S. W. 1/4, sec. 6, T. 121-35, which stands on an elongated knoll 35 ft. above the lake.

Mound at Lake Mary. This is on the E. 1/4, N. W. 1/4, sec. 19, T. 121-35, on a knoll about 75 ft. above the lake.

Mounds near Lake Wachonga (Grass lake). Four mounds are on S. W. 1/4, S. W. 1/4, sec. 4, T. 118-34, of which one is elongated, with dimensions 97 ft. by 48 ft. These are about 25 ft. above the lake, near the south line of the section.

Two other tumuli about 30 ft. in diameter are at the center S. W. 1/4, sec. 4, T. 118-34, 30 ft. in diameter, 2 1/2 and 3 1/2 ft. high, on cultivated land.

Lone mounds. A large mound 82 ft. in diameter and 9 1/2 ft. high is on the S. E. 1/4, sec. 3, T. 118-34, in cultivated land.

Lake Kasota mound, center of sec. 25, T. 119-34, a single tumulus, 60 ft. in diameter and 7 1/2 ft. high. Surveyed July 2, 1886.

Koronis Lake mounds (east group). On the E. 1/4, S. E. 1/4, sec. 3, T. 121-32, about 800 ft. to 1,000 ft. from the water of the lake, a single mound, 30 ft. in diameter and 4 ft. high, is on a knoll about 70 ft. above the lake. South from that and on a higher hill, about 100 ft. above the lake, is a subgroup of four mounds. The largest is about oval, 100 ft. by 80 ft. and 19 ft. high; another is a short elongated mound 50 ft. by 38 ft., 7 ft. high, having lower extensions on the two ends, 20 ft. wide and 2 ft. high, these being parallel with the central main mound, but one about twice the length of the other. About 70 ft. lower, on a flat toward the west, near the edge of the bluff which accompanies the river, is another subgroup comprising five tumuli of ordinary size. Surveyed Nov. 8, 1886. (Shown on following page.)

The west group at lake Koronis has some features of interest. It is situated on S. 1/4, S. W. 1/4, sec. 3, and N. 1/2, N. W. 1/4, sec. 19, T. 121-32, about 14 ft. above the lake, and 500 ft. from it. In this group are 33 mounds, all circular and of ordinary sizes except three, which are elongated. One of the three is a low, narrow embankment 272 ft. long which curves eastward at the center out of a right line 16 ft. The other elongated mound is curved twice, and in opposite directions, and terminates at the south end by an enlargement which has a concave terminal cross-section, suggesting a worm, or a snake, with its mouth open. Two of the circular mounds are connected by a narrow embankment. This snake-like mound has been described by Mr. Lewis in Science, No. 220, 1887.
This group presents, therefore, the following novelties: 1. A long, evenly curved, narrow embankment, parallel with the line of the bluff on which the group is arranged.

2. A twice curved, nondescript, elongated mound with a notched termination at one end.

Mr. T. G. Cramy mentioned "quite a number of mounds" near Litchfield in Smithsonian Report, 1879, p. 430. These mounds, which are in T. 119-31, have also been mentioned by A. C. Smith, in "Random Historical Sketch of Meeker County," 1877.

According to Mr. Nathan Butler, two mounds are on sec. 1, T. 119-31 (from memory).—Hill Rec.

The Litchfield News-Ledger, Sept. 4, 1879, contains account of examination of some mounds at Green lake. There was a group of 39 mounds, from 20 ft. to 52 ft. across and 2 ft. to 7 ft. in height, arranged in rows on the east bank of the lake, running in a south-easterly direction. In one of the larger mounds near the center were found 20 skulls and some of the accompanying bones. The bodies seemed to have been interred at one time in a sitting posture arranged in a circle. They were apparently seated originally on a pile of sod about two feet high and a mound built over them about 12 ft. high. These remains were in good preservation, and, although the party examined several other mounds, no bones were found that were intact enough to warrant an attempt at preservation. It appeared that this mound was the last made of the group. In each mound was found ample proof that it had been a place of interment.
In another of the larger mounds was found a sort of "rude caldron," 5 feet in depth and 2½ feet in diameter, built of stones, which showed evidence of intense heat, and in the bottom pieces of burned human bone, and ashes, indicating human cremation.

The skulls found, except two, had all been crushed before interment by some weapon. Such an implement was found, of stone, four or five pounds in weight, with a groove for the purpose of a handle.

Other mounds were visited, on the west shore of the lake, but were not opened.

**EARTHWORKS IN WRIGHT COUNTY.**

_Mounds on Crow river, near Dayton, S. E. 1/4, N. W. 1/4, sec. 1, T. 120-23._ The land is cultivated about 30 ft. above the river. This mound is 65 ft. in diameter and 6 ft. high. Surveyed, April 28, 1887.

_Mounds two miles west of Dayton, E. 1/2, S. W. 1/4, sec. 2, T. 120-23._ These are five in number and in cultivated land overlooking the river and about 35 ft. above it. The largest is 70 ft. in diameter, 5½ ft. high. (Shown below.)

_Crow river mounds, N. E. 1/4, S. W. 1/4, and N. W. 1/4, S. E. 1/4, sec. 29, T. 119-24._ Here are 16 mounds, about 18 ft. above the river, of which only four are circular. The rest are simple elongated mounds about 20 ft. in width and 1½ ft. in height. They present the anomaly that, while about parallel with each other, they have their greater surface dimension running perpendicular to the line of the bluff on which they are situated, instead of parallel with it. The largest circular mound is 60 ft. in diameter and 6 ft. high.

(Shown on following page, top.)

_Crow River mounds, S. W. 1/4, S. W. 1/4, sec. 29, T. 119-24._ This group numbers 4, of which one is elongated; 10 ft. above the river. Surveyed July 13, 1887.

A solitary circular mound, 18 ft. in diameter, is at N. W. cor. S. E. 1/4, N. W. 1/4, sec. 29, T. 119-24. It is about 15 ft. above the river.

_Crow River mounds_, one mile below Delano. Here are four mounds, of which one is elongated, parallel with the bluff. The largest circular
MOUTH OF PIONEER CREEK, WRIGHT COUNTY.
mound is 45 ft. in diameter and 2\(\frac{1}{2}\) ft. high. Mound No. 2 of this group is in the public road. (Shown at bottom of page.)

A single mound, on cultivated land, is opposite Delano, about 12 ft. above the river. Some 12 or 15 other mounds have been destroyed. That which remains is 160 ft. from the bank of Crow river.

At two miles above Delano, N. E. \(\frac{3}{4}\), sec. 23, T. 118-25, are two mounds, and there may be others in the neighborhood.

*Mouth of Pioneer creek*, S. E. \(\frac{1}{4}\), S. W. \(\frac{1}{4}\), sec. 26, and N. E. \(\frac{1}{4}\), N. W. \(\frac{1}{4}\), sec. 35, T. 118-25. Here are 26 mounds, mostly circular. The largest is also flat-topped, the base being 54 ft. in diameter and the platform 20 ft. Its hight is 7 ft. This mound also has two extensions, one of which is 24 ft. wide and 1\(\frac{1}{2}\) ft. high, and the other is 30 ft. wide and 4 ft. high. From the extremity of the second extension is another extension in the same direction, 21 ft. wide and 1\(\frac{1}{2}\) ft. high, 66 ft. long. These two enlargements of the main mound extend northerly, at an angle with each other of about 45 degrees. The longer are 10 degrees to the west of north (mound 1). One other circular mound also has an extension 20 ft. wide, 1 ft. high.

The most curious of this group is No. 26, which is square, with the corners at the magnetic points. The sides are 35 ft., the hight 3 ft., and the top is 24 ft. square. This group, therefore, presents four anomalies:
1. Extensions from a circular mound not on opposite sides of the mound, but forming an angle with each other of about 45 degrees.
2. An extension from an extension, the former having less width and hight than the latter.
3. Square mound, with corners at magnetic points.
4. Flat-topped square mound.

Surveyed Sept. 8, 1881. (Shown on following page.)

*Foster Lake mounds*, on N. W. \(\frac{1}{4}\), N. W. \(\frac{1}{4}\), sec. 10, T. 120-23, 35 ft. above the lake. Many of these are situated in a cultivated field, along a bluff that faces westward over the lake and over a marsh, through which passes a creek draining Foster lake. The total number is 33, of which only two are elongated. The largest is 68 ft. in diameter and 8\(\frac{1}{2}\) ft. high. It is not isolated from the line of the series. Surveyed April 28, 1887. (Shown on insert opposite.)
2 1-2 miles N. W. of Pelican lake exists a solitary tumulus, on N. W. 1/4, sec. 34, T. 121-25, in cultivated land. It is 35 ft. in diameter and 3 ft. high. There were seven or eight others within a quarter of a mile, which have nearly disappeared through cultivation. Surveyed Aug. 8, 1891.

Buffalo Lake mounds. Two tumuli are on lot 2, sec. 31, T. 120-25, on the bluff of the lake, east side, in the woods. The road passes between them. They are 30 ft. above the lake and about 30 ft. in diameter.

There is a large group, numbering 20 mounds, on the south side of the lake, of which the largest, No. 1, has been excavated, but is 75 ft. in diameter and 15 ft. high. They are 60 ft. above the lake. Here are also 3 circular embankments 2 ft. to 3 ft. high. Of these Nos. 1 and 2 are united, but the other, which is 36 ft. in diameter, is alone. Five of the mounds are elongated, and one is
wider at the center than at the extremities, having three sections, the central section being some longer than the end sections. Surveyed Nov. 16, 1886.

These circular embankments, having the same widths as the average circular mounds, and grouped with them, seem to be allied to the circular mounds. These embankments are from 6 ft. to 8 ft. across and from 2 ft. to 3 ft. high.

Another group is on the west side, W. ½, S. E. ¼ (lot 5), sec. 35, T. 120-26, consisting of 8 tumuli, of which the largest, No. 2, is 90 ft. in diameter and 12 ft. high. This greatly contrasts with No. 3, alongside of it, which is 12 ft. wide and 1 ft. high (the smallest mound yet noted). (Shown on bottom of preceding page.)

According to the Delano Eagle of July 10, 1881, Mr. Wm. P. Jewett opened a large mound in 1878, and at the depth of 14 feet, found ten or twelve skeletons. This was on sec. 35; and on the bank of Buffalo lake, on land then owned by Joseph Armstrong. Associated with this were four other mounds. The human bodies seem to have been buried in a circle, about 5 ft. from the surface.

At ½ mile south of Buffalo lake, on N. W. ¼, S. E. ¼, sec. 1, T. 119-26, is a group of 12 mounds, two of which are elongated. One of the tumuli, in the line of the group, reaches 65 ft. in diameter and 7½ ft. in height. These are about 20 ft. above the marsh. Surveyed Nov. 16, 1886.

On the west side of Buffalo lake are five mounds in a group, on S. E. ¼, S. E. ¼ (lot 6), sec. 35, T. 120-26; 60 ft. above the water. One is 85 ft. in diameter, 16 ft. high, and it is alongside of one which is 18 ft. in diameter and 1 ft. high.

At the north end of lake Ann, S. E. ¼, S. E. ¼, sec. 10, T. 118-27, about 15 ft. above the lake, is a tumulus 20 ft. in diameter near the road.

On lot 4 (S. E. ¼, S. W. ¼) sec. 11, T. 118-27, north end of lake Ann, are two tumuli, 30 ft. in diameter, on cultivated land, about 12 ft. above the lake.

On the west side of lake Ann, on lot 3 (N. E. ¼, S. E. ¼), sec. 15, T. 118-27, is a common tumulus about 25 ft. above the lake, in a slight swale.

At the south end of lake Ann, on lot 5 (S. ½, S. E. ¼), sec. 14, T. 118-27, is a group of seven mounds, all circular, 25 ft. above the lake Ann and Emma.

On a creek near lake Ann, on lot 4 (S. E. ¼, S. W. ¼), sec. 11, T. 118-27, are two mounds, the larger 30 ft. in diameter and 2 ft. high; the smaller 28 ft. in diameter and 2 ft. high, about 12 ft. above the creek. (Shown on following page.)
There are four large mounds half a mile south of lake Ann, on N. E. 1/4, S. W. 1/4, sec. 23, T. 118-27. They are 40 ft., 42 ft., 48 ft. and 50 ft. in diameter, 3 ft. in height. There are five or more further to the southeast, that have been cultivated too much to survey; situated on a slight ridge.

At the north end of lake Mary, on N. E. 1/4, N. W. 1/4, sec. 25, T. 118-27, are two small tumuli, 22 ft. in diameter and 1 ft. high, 20 ft. above the lake.

Along Twelve-Mile creek, on the south and west sides of lake Ann, secs. 15, 22 and 23, T. 118-27, are three groups of mounds. The first is on lot 4, sec. 23, and consists of 12 mounds, all circular except one, which is elongated, with dimensions 90 ft. by 50 ft. and 3 1/2 ft. high. Toward the north this is abruptly connected with a circular mound, which is 55 ft. in diameter and 5 ft. high, by a narrower embankment 30 ft. wide and 2 1/2 ft. high. The smallest mound of this group is 30 ft. in diameter, and the largest is 55 ft. Three are 50 ft. in diameter. Surveyed Sept. 15, 1881.

A rare combination is witnessed in Nos. 6 and 7 of this group, viz.: An elongated mound is suddenly narrowed from 50 ft. to 30 ft., and again expanded as suddenly into a circular mound, the length of the embankment being 16 ft., or about one-half its width.

Group No. 2 is on N. E. 1/4, sec. 22, also embraces 12 mounds, and shows one rare feature, viz.: Two of the largest mounds, each 4 ft. high, are connected by a short curving embankment 25 ft. wide and 1 1/2 ft. high. These two mounds have both been opened. This group of tumuli, as well as group No. 1, has an unusually large average diameter for the circular mounds.

Group No. 3 is on the opposite side of Twelve-Mile creek, contains 8 mounds, three being elongated, one 150 ft. long, 20 ft. wide, and 1 1/2 ft. high; another 85 ft. long, 40 ft. wide, and 3 1/2 ft. high; and the third 80 ft. long, 20 ft. wide and 1 ft. high. This group also presents an anomaly, viz.: a spur-shaped extension is connected with a circular mound, running to a point. At the base it is 20 ft. wide and 2 ft. high. It is about 30 ft. long. Surveyed Sept. 15, 1881. (Shown on insert opposite.)

A solitary tumulus, 22 ft. in diameter, is north of lake Emma, S. W. 1/4, S. W. 1/4, sec. 13, T. 118-27, about 22 ft. above the lake.

Howard Lake mounds. The mounds about this lake are isolated except in one case. A group of 5 tumuli is on the east side, lot 4 (N. E. 1/4, N. W. 1/4 and N. W. 1/4, N. E. 1/4), sec. 34, T. 119-27, near the lake, but in the woods, about 12 ft. above the lake, all circular, mostly about 30 ft. in diameter.

According to the Delano Eagle, June 13, 1878, one of the mounds on the south side of Twelve-Mile creek, about three miles south of Delano, was explored by a party of young gentlemen. At the depth of 5 feet they found two human skeletons, the size of which indicated sons of Amalek. The bones were
in the last stages of decay. One "thigh-bone measured 20 inches in length and was proportionately large. The teeth were still sound, and double all round, though not of large size, but worn flat from long use."—*Hill Rec.*

Two others are together, on the west side, lot 2, sec. 33, T. 119-27; 30 ft. in diameter; 13 ft. above the lake; 125 ft. from it.

One tumulus is on lot 1, sec. 33, at 150 ft. from the lake and 15 ft. above it.

One is on the east side on lot 2, S. 1/2, S. W. 1/4, sec. 27, T. 119-27; 20 ft. above the lake; 25 ft. in diameter.

Another is on the same section, on the N. E. 1/4, S. E. 1/4, sec. 34, T. 119-27; 16 ft. above the lake; 30 ft. from the bluff; 24 ft. in diameter.

*Clearwater Lake mounds, W. 1/2, S. W. 1/4, sec. 12, T. 121-28,* overlooking a ravine, on a high ridge, is a group of 47 circular mounds and embankments. Of the tumuli the largest is 75 ft. in diameter and 8 ft. high, and the smallest 18 ft. and 1 ft. high. The tumuli are generally small and low. Three are noticeably large, having diameters 75 ft., 70 ft. and 60 ft., with heights 8 ft., 63/4 ft. and 5 1/2 ft. respectively. The elongated mounds or embankments are of the usual type, their width being about the same as the diameter of the smallest mounds, i.e., 18 ft. to 20 ft. straight and of uniform width from end to end. To this, however, there is one exception here, one embankment, No. 5, tapering from a width of 20 ft. at the north end to 10 ft. at the southern, and from 1 1/2 ft. in height to 1 ft. This is an exceedingly rare feature. Two of the tumuli are connected by a low embankment much narrower than the mounds connected.

Mr. R. M. Van De-Voort gave information concerning the *exploration of a mound of this group about the year 1885.* It rose 3 ft. above the level of the surrounding ground. The opening was at the top, about 3 ft. by 6 ft. The material consisted of alternations of ordinary black soil and hard, light gray, four of the latter, each about 4 inches thick. The bones were about 3 ft. from the surface and consisted of six skeletons, each skeleton occupying a space...
CLEARWATER LAKE, WRIGHT COUNTY.

about 18 inches by 30 inches, leg and arm bones being directly on top of the chest, and the skull on top of all. The bones were generally very brittle, but some were well preserved. The lower jaw-bones were large, the teeth, so far as found, all double, the brow considerably receding backward, thigh-bone 22 inches long, upper arm-bone 14 inches long. These bones were taken to Chicago by a doctor some five years after they were discovered. This was evidently a regular Sioux burial of bundled bones.

In the Pioneer Press of June 29, 1888, is an account of the discovery at 12 miles from Clearwater, N. E. 34 sec. 21, T. 121-27, by Charles W. Pinkerton, of the town of Corinna, of the remains of seven persons said to have been from seven to eight feet high. They were found in a kind of mound, and were buried with their heads down. The skulls indicated an inferior race of men. The teeth in the jaw-bones were mostly sound, "and not like the teeth of the present race of men."

In the Pioneer Press of July 1, 1888, was published a more satisfactory and correct account of this discovery, abstracted as follows: The mound itself is about 50 ft. across and some 12 ft. high, of symmetrical shape. According to Prof. H. F. Nachtrieb, who visited the place and examined the bones, the skeletons were not of unusual size. They were deposited in the mound in a sitting posture, facing the lake. The skulls, when compared with Indian skulls in the possession of Dr. Thomas S. Roberts, of Minneapolis, showed some marked differences. The forehead was very low, and the brow prominent. The postero-anterior axis of the skull was very long. Judging from the external auditory meatus, this prehistoric man had a large ear. His jaws were heavy, his cheek-bones prominent. The ridges on his arm-bones indicated that he was very muscular. His front teeth, instead of being chisel-shaped, like those of modern man, had their greater diameter at right angles to the jaw-bone, and all his teeth were quite large, and some with the enamel perfectly preserved. On the whole, the skulls seemed to be quite small, in proportion to the rest of the skeleton. The remains were evidently those of ancient mound-builders. The mounds were covered with a forest of large elms and maples.

Enclosure and mound, lot 2, N. E. 34, N. E. 34, sec. 21, T. 121-27. These are on the bank of the lake but about 200 ft. from it. The mound is 62 ft. in diameter and 8 ft. high. The enclosure is toward the northeast from the mound, on a knob about 35 ft. above the lake, the mound being 22 ft. above the lake. The enclosure consists of an embankment 13 ft. wide and 1 1/2 ft. high, the ends coming near together, but leaving an opening 6 ft. wide. Surveyed Aug. 1, 1887.

On lot 5, N. W. 34, N. W. 34, sec. 21, T. 121-27, at 40 ft. above the lake and 450 ft. south from it, is a group of 6 circular mounds and one elongated. The largest of the former is 80 ft. in diameter and 41 1/2 ft. high. The elongated mound is of a rare type, tapering from 26 ft. to 10 ft. in width and 1 1/2 ft. to 1 ft. in height in a length of 80 ft. Surveyed Aug. 1, 1887. See letter of E. E. Woodworth.

LETTER FROM MR. E. E. WOODWORTH.

In the year 1888, I, in company with Rev. Mr. Wigstead and my brother, Charles Woodworth, opened the mound (No. 1 of the diagram adjoining) in Mr. Levi Dakin's field, cutting clear through it a ditch about 18 inches wide, and from top to bottom 4 1/2 feet deep, from north to south and from east to west. A peculiarity of formation was found. About two feet from the top surface was found a continuous layer of black material about four inches in thickness, which appeared to be earth mixed with some substance which rendered it impervious to water, as was evidenced by the perfectly dry earth below the layer. The soil above the layer was very wet, as it had rained the night before. When this substance was broken it presented occasional small faces shiny black. The material was very tough and resisted the pick like asphalt. About two feet below this layer was a second layer of the same substance; and a third layer was encountered perhaps not more than fourteen inches below the second layer.

The earth had evidently been carried in receptacles which held about one-half bushel, as was evidenced by the different materials, as sand, clay, or black soil.

We found no bones, neither any cavities in this mound.

ST. PAUL, MINN., MAY 31, 1907.
Near the surface we found a stone ax weighing about five pounds, perfect except for a small spall from the face.

In the woods just east of the field, perhaps ten rods from the mound which we opened in the field, were several mounds, the largest of which we dug into from the very top, making a hole five feet square and five feet deep, finding nothing until I was about to leave the hole. It was raining, and as we had nine miles to drive, and as it was nearly night, I caved the walls in, and in so doing opened a cavity on the west which was filled with dust. This I scraped out and we observed that the cavity had the appearance of having been filled with blankets or hides rolled closely, or possibly a body. It was so dark we could not examine as fully as we wished to do. We did not find the peculiar impervious layers in this mound.

E. E. WOODWORTH.

On lots 3 and 4, N. W. 1/2, S. W. 1/4, sec. 18, T. 121-27, at 48 ft. above the lake, is a series of 18 tumuli and one elongated mound. The line of extension of this series is away from the lake bluff, and the larger mounds are out of the line, the largest being 70 ft. wide and 51 1/2 ft. high. They begin at 60 ft. from the lake bluff and 510 ft. from the water. Surveyed July 2, 1887.

There is a solitary mound, 35 ft. above the lake, 30 ft. in diameter, at the center of the N. E. 1/4, sec. 13, T. 121-28.

Pleasant Lake mound, a solitary tumulus, is at the center of the N. E. 1/4, sec. 24, T. 121-28; 28 ft. in diameter; 50 ft. above the lake.
Clearwater River enclosure. This is on N. E. ¼, S. E. ¼, sec. 11, T. 121-28, at 35 ft. above the river and 250 ft. from it. This enclosure is of an oblong shape, with an opening of 5 ft. at the east end. The embankment is 12 ft. wide and 1½ ft. high. A road passes across it. Its greatest dimension is 102 ft. Surveyed Aug. 3, 1887.

Pulaski Lake mounds. Lot 3 of sec. 8, T. 120-25. Here is a group of 14 mounds, of which 5 are elongated north and south, parallel with the direction of the series in which they lie; 30 ft. above the lake. The largest circular mound is in the series, 65 ft. by 7 ft. There are distinctly two sizes of the elongated mounds, viz.: 18 ft. (or 20 ft.) by 26 ft. (or 30 ft.), and 30 ft. (or 35 ft.) by 40 ft. (or 45 ft.). Surveyed Sept. 10, 1881.

“A party from Monticello dug through the largest of these mounds. Many skeletons, buried in a horizontal position, one above another, were found, but it appears that no implements nor manufactured articles of any kind were discovered.”—Upham, Geol. Sur. Rep., vol. ii, p. 263.

Silver Lake mounds. The group, as it now remains, comprises seven tumuli, although a number of others, probably about 12, have been plowed down. They are about 30 ft. above the lake, on the S. E. ¼, S. E. ¼, sec. 5, T. 121-26. The largest mounds are isolated, 74 ft. in diameter, 3½ ft. high; and 67 ft. in diameter, 6 ft. high. Surveyed Sept. 13, 1891. (Shown on following page.)

There is another tumulus, which is flat-topped, and which probably belongs to the foregoing group, on the N. E. ¼, S. E. ¼, of the same section, about 20 ft. above the lake. The top is 18 ft. in diameter, and the base is 50 ft., 3½ ft. high. It is 130 ft. from the brow of the bluff, which overlooks a meadow.