

seventy-five feet high, built of rough stones without mortar. The sides not protected by water have a deep ditch dug.

Other earthworks situated in Ross county are described by the same author, and known as Clark's Works. The ridges enclose two hundred and seventy-five feet by one hundred and seventy-seven, in a parallelogram, and a square covering an area of sixteen acres. It required three million cubic feet of earth to construct these forts.

Whittlesey, "On the Weapons and Character of the Mound Builders."

Many of these works are connected with each other with a skill which is very remarkable. Squier is of the opinion that a continuous system of fortifications stretches diagonally across the State of Ohio, from the sources of the Alleghany and of the Susquehanna, in the State of New York, to the Wabash river. There are three forts on the line of the Great Miami River, one at its mouth, another at Colerain, and still another at Hamilton. Beyond this last point other works extend for a distance of six miles along the river, protecting the tributaries of the Great Miami on the north and west or ranged in succession as far as Dayton or Piqua, so as to complete the line of defense. All these points are isolated mounds, mostly situated upon hills commanding an extensive view. A mound on the Ohio called the Miamisburgh mound is a good specimen of these signal stations, as they are supposed to have been. It is now sixty-eight feet in height, and eight hundred and sixty-two feet in circumference at the base. (Short, "The North Americans of Antiquity," p. 52.)

There is another lofty eminence called Lookout Mountain, a short distance from Circleville, of the same character.

Of course the ravages of time and the perpetual attrition of the elements have lessened considerably the altitude of these observation towers, while the breadth of the base would be proportionately increased by the washing down of the earth.

Fort Ancient affords one of the best examples of the magnitude and importance of these earth-works, and the amount of work and skill employed in the defensive operations of the mound builders.

There are numerous earth-works which, while they can scarcely be called military forts, were evidently permanent defenses against an ever present danger. They occur mostly in the Western States. It is certain that the walls enclosed the habitations, tombs and other appurtenances of man's fixed abode. A

regular form and style characterized them all. All the figures are perfect, and all sides equal, with right angles. A remarkable example is found in the Scioto valley, Newark. It includes an octagon covering an area fifty-seven acres, a square of twenty acres and two circles of twenty and thirty acres respectively. The walls of the largest circle are twelve feet high, by fifty feet wide at their base; they are protected by a trench in the inside seven feet deep by thirty-five feet wide. According to a survey made by Colonel Whittlesey, the whole of these works occupy an area of twelve miles square. The large entrances are defended by slopes thirty-five feet high, and trenches thirteen feet deep. On these abandoned ruins, forest trees have grown to a great age; others preceded them, as their gigantic trunks, now in a state of decomposition, bear witness. "Man, actuated by motives unknown to us," says Nadailbac, "fled from these scenes where everything testifies to his power and his intelligence; the vigorous vegetation of nature is the only life which has endured." (*Pre-His. Am.*, p. 100.)

JOHN H. KELSON.

(To be continued.)

THE IRRIGATION CONGRESS.

The afternoon recess was taken advantage of by the committee to make the location of the various delegations with signs bearing the name of the State they hail from.

The congress reassembled at 4 o'clock. A large increase in the number of delegates was plainly to be seen. Not less than 600 members were present.

THE CREDENTIALS.

The first business before the assembly was the report of the credentials committee. The reading of the names of those entitled to seats was begun, but before the delegates from two States had been named, one of the members from California showed signs of uneasiness. It was evident that a lot of precious time would be squandered for nothing if the reading proceeded to the end, and this combined with the mis-calling of several of the California delegates brought out a unanimous protest from those gentlemen, which resulted after some back talk from Idaho in the reading being suspended instantaneously.

To the report was attached a resolution to the effect that each State and Territory entitled to representation in the congress should have the right to thirty votes, irrespective of the number of delegates present. This action of the committee grew out of a pretty general feeling among the outside delegates that Utah had too great an advantage in representation.

The report as read was accepted and the congress proceeded to the report of the committee on permanent organization.

REPORT ON PERMANENT ORGANIZATION.

Mr. Chairman and gentlemen of the Convention:

Your committee on permanent organization recommend a president, a vice-president for each State and Territory represented, a secretary and two assistants, and a sergeant-at-arms as officers of the convention, and for these officers they recommend the following, to wit:

For president, C. C. Wright of California.

For vice-presidents—Oregon, J. W. Sholton; New Mexico, D. H. Wenzel; Nevada, M. D. Foley; Montana, W. A. Clark; Kansas, J. W. Gregory; California, J. R. McDonald; Utah, W. S. McCornick; Texas, Dr. W. H. Westfall; Colorado, C. H. Sanborn; Idaho, J. M. Jones; Wyoming, E. A. Slack; Nebraska, Colonel Jack McCall.

For secretary, Frank K. Gillespie of Utah. For assistant secretaries, George A. Robethon of Idaho and Robert Morris of Wyoming.

For sergeant-at-arms, Colonel Nicholas Treweek of Utah.

J. L. GRINSTEAD, President,
A. J. Hollister, Secretary.

The announcement of Mr. C. C. Wright for president was received with a loud cheer from the assembly, which of course began and died away at the north west corner, where the California delegation had taken up their permanent quarters. In the meantime Messrs. Gillespie and Treweek came in for a recognition that testified that the choice of the committee in their case was likewise heartily approved.

The report of the committee on order of business followed.

ORDER OF BUSINESS.

Mr. President and gentlemen of the Irrigation Congress:

Your committee on order of business beg leave to report as follows. The order of business of this convention shall be:

First—Report of committee on credentials.

Second—Report of committee on permanent organization.

Third—The sessions of this convention shall be from 9 in the morning to 11:30, and from 1:30 in the afternoon to 5 o'clock, and night sessions shall be held as the exigencies of the proceedings may require.

Fourth: Statement by the permanent chairman of the objects of this convention.

Fifth: Appointment of committee on platform and resolution.

Sixth: Appointment of executive committee vested with power to carry into effect the declarations of this convention in such manner as the convention may determine.

Seventh: Appointment of committee to memorialize Congress on behalf of the objects of this convention.

Eighth: Your committee respectfully suggest the adoption of the following resolution, for the government of this convention:

Resolved, That no subject not cognate with the objects for which this Congress has been called shall be considered and that no resolution not german to the general subject of the development of systems of irrigation shall be offered.

Resolved, That when resolutions are offered which may be deemed irrelevant to the objects of this convention upon the question of order the chair shall decide, and upon appeal from the decision of the chair it shall be decided by the convention without debate.

Ninth—Your committee respectfully suggests the adoption of the following:

Whereas, The present is the first Congress of authorized delegates from the States and Territories west of the Missouri river ever assembled, and