

cause the obliteration not alone of the extensive and interesting minor details of the disturbance, but of many of the greater as well, particularly in the river-beds where the changes of level have occurred. The town of San Miguel, three miles north of Babispe, and Bacerac, nine miles south, were uninjured. This is, in view of the principal line of disturbance, particularly interesting.

I enclose a hasty tracing of the section, which may aid in showing the location of the fault. This does not show the length, for it is too tortuous. Scale of map is about 40 miles to the inch. The mountains as marked are the famed Sierra Madres.

G. E. GOODFELLOW.

Tombstone, Arizona, July 14.

#### Chemical Laboratory of the University of Nebraska.

So many requests for the plans and a description of the new chemical laboratory of the University of Nebraska have been re-

The entrances are in the south and north ends of the building; that in the south being the main one, while the north door is for the convenience of students coming to the laboratories from the other university buildings. Through this, access is had to every work-room in the laboratory, and to the main lecture-room on the second floor. This arrangement brings classes into the lecture-room from the rear,—an arrangement that will be appreciated by every lecturer on experimental science.

Entering at the south door, we find ourselves in the vestibule of the first floor. At our right and left, stairways lead to the basement floor, as shown in Fig. 3. Descending to the basement corridor (Fig. 2), at the front is a large vestibule opening by double side-doors into an area where heavy material is received. Under the stairway to our right is a small room containing the gas-meter. Under the left-hand stairway, and extending across the space occupied by the vestibule, is a ladies' toilet-room. Immediately in

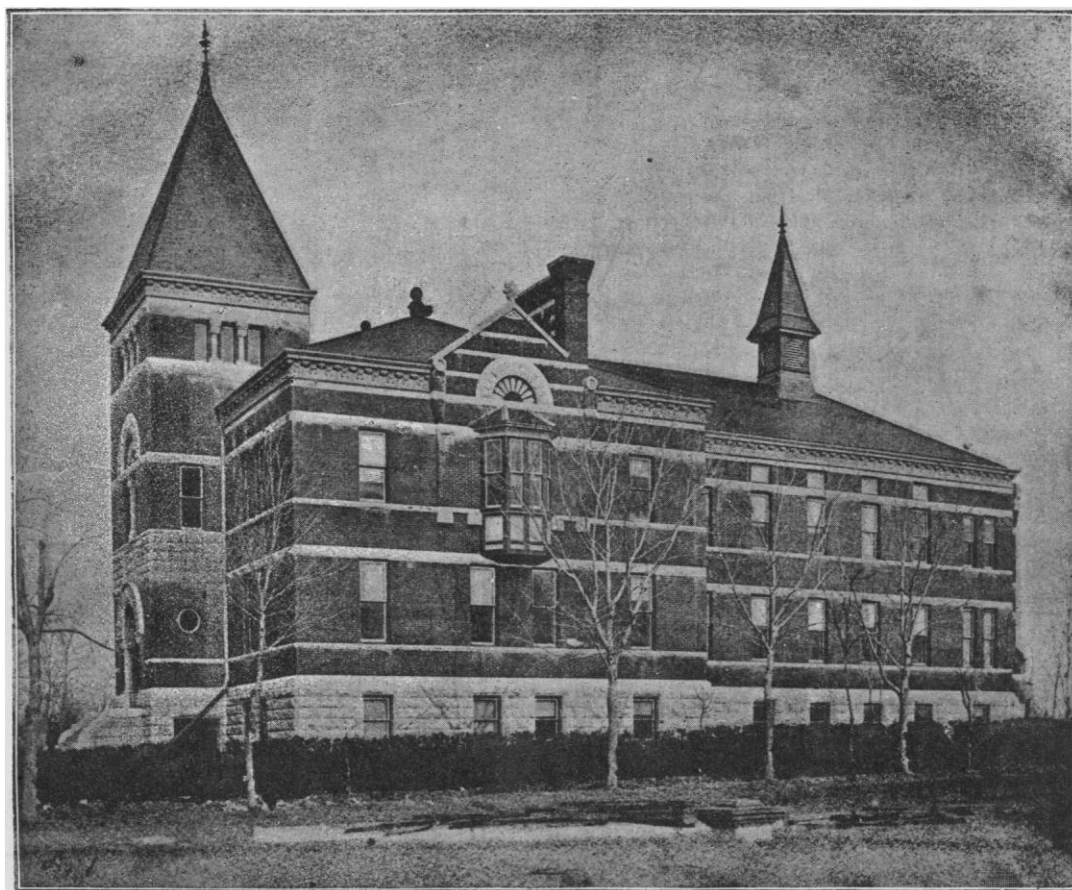


FIG. 1.

ceived since its erection, as to warrant the belief that a brief description of its general features would be of interest to the readers of *Science*, and especially to those who are contemplating the erection of similar buildings, or who are interested in the educational growth of the West.

The building is situated on the south-east corner of the university campus, fronting south on R Street. A wide street bounds the east side, while on the north and west is the open campus: thus the building commands an abundance of light from all directions.

Fig. 1 shows the south front and east side. The building consists of a high basement of native limestone, and a two-story superstructure of the finest St. Louis pressed brick, laid in black mortar and relieved by belt courses of rough limestone. The style of architecture is Romanesque, the broad and heavy stone arches and pointed towers giving to the whole an appearance of massiveness and solidity in keeping with its construction.

front of the stairway is the elevator shaft. The room at the right serves as a store-room for the basement laboratories, and as a balance-room for the assay and metallurgical laboratory. The corresponding room on the opposite side of the corridor contains a small upright boiler for furnishing distilled water, and large storage-tanks for hydrogen and oxygen gases. It serves also as a storage-room for acids and as a work-shop. The remaining portion of this floor is taken up by the general laboratory, where students beginning the study of chemistry do their work. This can be used as one large laboratory, accommodating seventy-five students at one time, or, by closing the communicating doors, be divided into two, A and B, A being used as an assay and metallurgical laboratory.

These rooms have high ceilings, and are well supplied with light. They are ventilated by means of the two large flues C and D, each of which is eight feet broad, and a series of smaller flues built into the side-walls, one between each pair of windows. The large

flues open directly into the air; the smaller ones, into the space under the roof, which communicates with the air by means of the small ventilating-tower on the rear part of the roof. On each floor, built into the space between the large flues, and opening into them, are large hoods accessible from both sides through sliding glass doors.

Extending along the side-walls — and this is the case in every laboratory-room in the building — is a table, furnished with gas and

for the use of those students who have had some preliminary training, and has accommodations for thirty-two workers. Opening from this laboratory at opposite corners are two rooms equal in size, — the one a balance and apparatus room; the other the private laboratory of the associate professor. Beyond these, on opposite sides of the south corridor, are a small lecture-room and a special laboratory. In this laboratory the chemical work of the investigations undertaken by the experiment-station will be carried on.

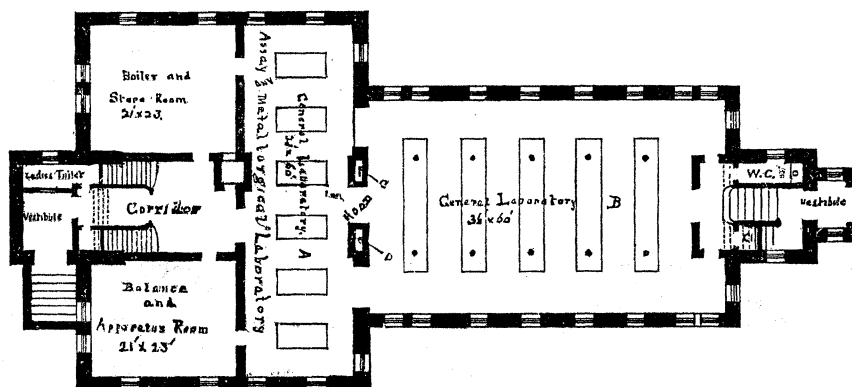


FIG. 2

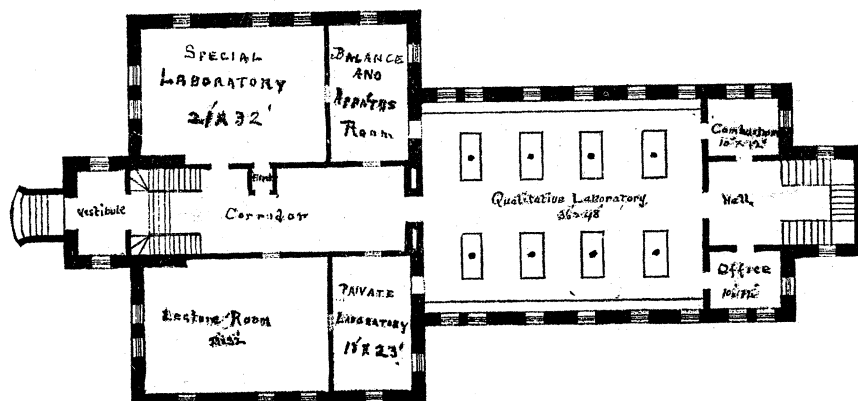


FIG. 3.

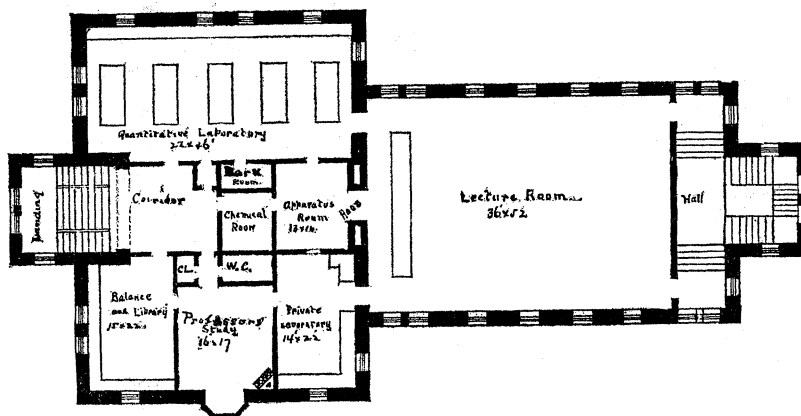


FIG. 4.

water, drawers and cupboards. These tables carry the smaller hoods, covering the sand and steam baths, and opening into the small flues. Space is also afforded here for such operations as require more room than the ordinary work-table gives.

Passing through the general laboratory, and ascending the stairway at the north end, we find ourselves in the north hall of the second floor (Fig. 3). On our right is a small room for blast-lamps and combustions. On the opposite side of the hall is the office and study of the associate professor of chemistry.

Passing on, we enter the qualitative laboratory. This is intended

Ascending the stairway at the end of the corridor, we reach the corridor of the second floor (Fig. 4). At our left is the quantitative laboratory, with accommodations for twenty students. Communicating with it is a small dark room for the storage of standard solutions.

Passing through the door in the north end of the room, we enter the main lecture-room. This room has a raised floor, placed at such a pitch that the top of the lecture-table can be seen from all parts of the room. It is furnished with Andrews's patent lecture-chair, and will comfortably seat two hundred people.

The lecture-table is large and roomy, and is abundantly supplied with water and gas. It is ventilated by powerful down draughts and movable box-hoods. Directly back of the table, and opening into the preparation-room, is one of the large hoods before mentioned. Connected with the preparation-room is a small dark room for the storage of chemicals. These rooms serve also as apparatus and store rooms for the laboratories on this floor.

Leaving the lecture-room from the opposite corner from which we entered, and passing through the laboratory and study of the professor of chemistry, we come to the balance-room and library. This room is very well supplied with books of reference and the current periodicals, having complete sets of the *Berichte, Fresenius Zeitschrift, Chemical News, American Chemical Journal, Centralblatt*, and others. No special room has been set apart for collections. It is the intention to utilize the corridors for this purpose.

The tables (Fig. 5) in each student work-room, except laboratory

accommodate ten students each. Besides table-supply, each laboratory has a large sink for use when large quantities of water are necessary. Distilled water is furnished on each floor. The building is heated throughout by steam from a central station in the main building. Fire-protection is afforded by sections of hose on each floor, connected with a standpipe which passes up through the centre of the building from basement to attic.

We have now been in occupancy about one year, and feel well satisfied with our arrangements, though some matters of detail await the necessary funds to carry them into effect.

H. H. NICHOLSON.

#### Answers.

11. LAKE ITASCA.—Rev. William T. Boutwell of Stillwater, Minn., several years ago, wrote for the Minnesota Historical Society the following account of the naming of Itasca Lake: "Coming to Mackinac in the summer of 1831, I received an invitation to spend the following

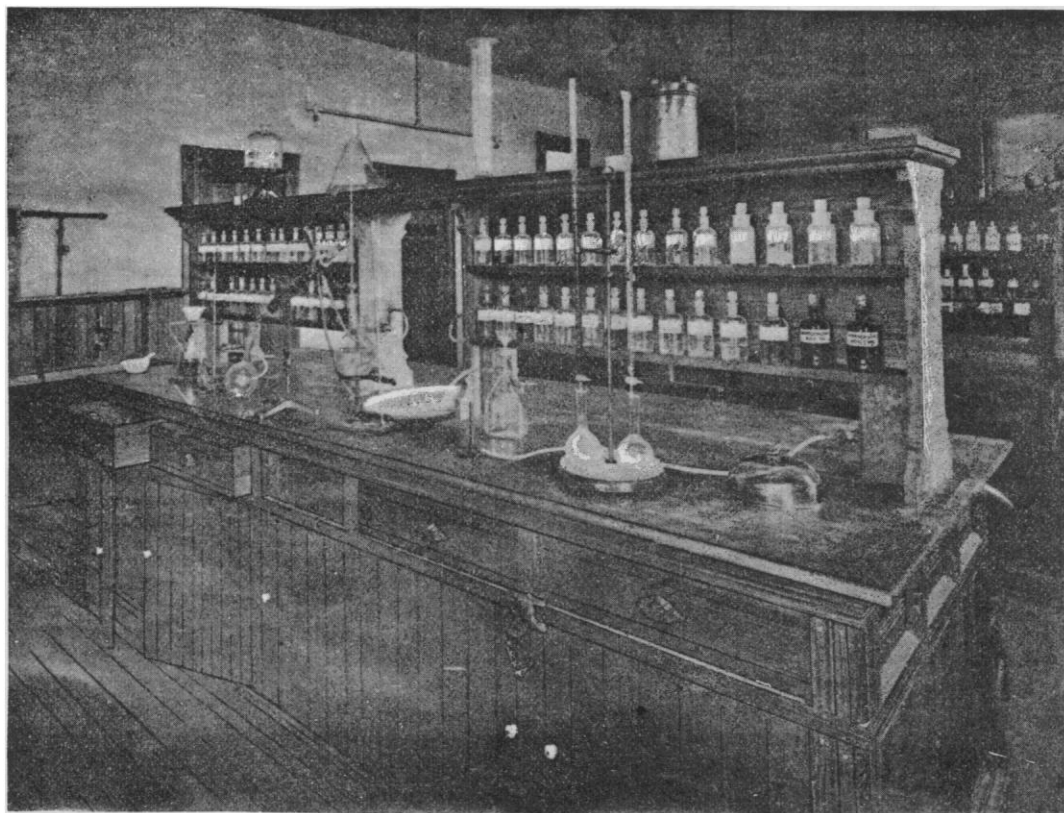


FIG. 5.

B, are ten feet long, four wide, and three feet and three inches high. Four students use one table; each having at his disposal, for storing his apparatus, two large drawers and two roomy cupboards, all secured by a single lock. Each student has two gas connections and an abundant supply of water.

The arrangement for water-supply is different from that usually employed. Instead of two basins placed at the ends, one large oval basin, twenty-one by sixteen inches, is sunk in the centre of the table, its long diameter across the table, and is supplied from two taps, one at each side. This arrangement has the advantages of being economical, convenient, and neat.

The work-places are numbered consecutively in each laboratory, and are supplied with sets of re-agent bottles, bearing, in enamelled letters, the name of the re-agent and the number of the desk. The stopper of the bottle bears a number corresponding to the one on its body. By this means a bottle out of place can be easily relocated, and the transposition of stoppers is inexcusable.

In laboratory B, tables are similarly equipped, and constructed on same general plan, except that they are twenty-six feet long and

winter at Sault Ste. Marie. There I made the acquaintance of Mr. Schoolcraft. Early in the spring of 1832, he received instructions from the government to visit the bands of Indians on the Upper Mississippi, and also to ascertain the true source of the river. He very kindly invited me to accompany him. Now for the origin or derivation of the name 'Itasca.' One morning we were coasting Lake Superior. Mr. S. said to me, 'I would like to give a name to Elk Lake that will be significant or expressive of the *head*, or *true source*, of the Mississippi. Can you give me any word in Latin or Greek that will convey the idea?' I replied, 'No one word will express the idea. The nearest I can come to it is *verum caput*, or, if you prefer the noun *veritas*, you may coin something that will meet your wishes.' In less than five minutes he replied, 'I have got the thing,' handing me a slip of paper on which was the word 'Itasca,' remarking, 'This is not poetic license, but you will find it, as you progress in the study of Ojibwa, to be Indian license. It was then and there, and in just this manner, that the name 'Itasca' was coined."

J. FLETCHER WILLIAMS.

St. Paul, Minn., Aug. 3.