

Complete Annual Report of the Illinois Department of Public Welfare

MANTENO STATE HOSPITAL

**By Ralph T. Hinton, M. D.
Managing Officer**

I submit herewith the first annual report of the Manteno State Hospital. This report is for the periods ended June 30, 1930. The Fifty-fifth general assembly appropriated one million dollars for the acquiring of land and construction of buildings for a new institution for the care of the insane. Approximately one thousand acres of land were purchased near Manteno. This city is located on the main line of the Illinois Central Railroad. It is also on Route 49, a forty foot highway leading from Chicago.

During November, 1928, a survey was made of two hundred and eighty acres in Section 23, Soil test borings were also taken at this time. Under the direction of the supervising architect, Messrs. Schmidt, Garden and Erikson, Chicago, prepared plans for the Administration building and eight cottages for patients. The cottages were to be two stories in height and each was to provide accommodations for approximately one hundred patients. Bids for general and mechanical work on these buildings were taken and on December 8, 1928, the following contracts were awarded:

General work, English Brothers, Champaign, Illinois, \$936,301 : heating, Klein and Heckman, Dixon, Illinois, 68,940: plumbing, Klein and Heckman, Dixon, Illinois, \$62,940: electric wiring, Dionne Electric Company, Chicago, Illinois, \$20,144, and ventilating, Wm. V. Hoier Company, Chicago, Illinois, \$13,800.

Bad weather conditions, with excessive snow and ice, delayed the beginning of construction; but after Dec. 24, 1928, materials and equipment began to arrive. Further consideration deemed it advisable to change the original site of the location of the Administration building and ward buildings and accordingly a survey was made of the north 240 acres of Section 26. Test borings were again made and in the southeast portion rock was found within two feet of the surface.

Excavation for the first cottage was started May 23, 1929. Soil bearing tests were made at each building and footings and foundations were completed in July. All excavations were completed by the middle of August. Considerable difficulty, due to water, was encountered, and it was necessary to keep pumps running continuously.

Brick work was started on the 20th of July and had reached the first floor by the first of August. The outside walls were faced with colonial No. 7 face brick, while interior walls and partitions were faced with cream colored brick above a brown face wainscot.

The first floor of cottage 18A was poured during the first week of August and first floors of the remaining buildings were poured at the rate of one

building each week. By the end of August the brick work had advanced far enough to permit the pouring of the second floor in two of the buildings. These floors are of steel joist construction with concrete slabs carried on metal laths, the finished floors being the same as on the first floor, i.e. brass strip terrazzo with terrazzo base and cove, with the exception of the wash rooms, toilets, and utility rooms, where hexagonal white tile is used. About a month later brick work on other of the ward buildings had been completed up to the cornice and the attic floors were constructed. Steel joists were used as on the second floor. All of the structural floors were completed by the middle of November, 1929. Roof framing, sheet metal work and slate work was completed the first part of January, 1930.

The construction of the Administration building did not advance as rapidly as the ward buildings. The foundations were completed the first week of September, the erection of structural steel and brickwork for the gables and tower was completed by the middle of December and the framing of the roof was then started. During this time it was necessary to heat all materials and to keep the buildings warm by the use of salamanders. After the completion of the roofing and sheet metal work the finishing of the interior was started, but progress was slow, due to severe winter weather. The first of March a heavy snow storm stopped the work altogether, and all roads to the grounds were impassable for several days.

At the end of March, lathers and plasterers started their work and good progress toward completion of the interior, ceilings, walls and cornices in the cottages and Administration building was made. About the middle of April a strike of terrazzo workers occurred and the progress on interior work was halted for a time. Some difficulty was encountered in obtaining mill work according to specifications, notwithstanding the fact that the contractor sent a representative to the mill and had him remain there until all of this work was completed, Inspection disclosed the fact that some of the cases and clothes lockers did not comply with the specifications. Later this was adjusted and a credit obtained. By the middle of June the plastering had been practically completed and marble work was started in the toilet rooms and waiting rooms of the Administration building. On the 23rd of June, during a heavy storm, the tower of the Administration building was struck by lightning, necessitating replacing dome of the stone work.

During the latter part of June some difficulty was encountered in getting the painting started. A short time after the beginning of the work the painters' union made an agreement whereby the jurisdictional boundary was changed. As a result Manteno came within the jurisdiction of the Joliet union with an increase of twenty-five cents per hour in the scale paid to painters. An agreement between the contractor and the union could not be reached and finally the painting contract was let to W. p. Nelson Company, Chicago. Painting of all the buildings was started on January 23. The work was pushed rapidly with thirty-five painters on the job. An inspection of some of the ward buildings at this time disclosed the fact that the putty on the windows was cracked and falling out. All the window panes of the nine buildings had to be reputted and this delayed the painting contractor to some extent.

The heating and plumbing for the Administration building progressed with the general work with no delays, At first the electrical wiring progressed satisfactorily but about the end of February the contract for this work was taken over by the National Surety Company, the bonding company for the Dionne Electrical Company.

RAILROAD TRACK

On January 5, 1929, the Illinois Central Railroad was given a contract for the construction of a switch. This switch leads from the north bound main line of the Illinois Central to the institution. The original contract price was \$51,000; later an additional \$6,990 was added for the construction of 1600 extra feet of track. The total trackage at the present time is 12,500. The main track starts near section 29, turns east crossing route 49 and then east to the west property line. Here it makes a curve, then goes to the power house, one spur is alongside of the kitchen platform and in addition there is one center track on which extra cars can be switched. There was later allowed \$5,191.23 for the construction of the extra spur and relocation of the original spurs.

DEEP WELL

A contract for a deep well to be approximately 1800 feet in depth was awarded to J. P. Miller Artesian Well Company on May 18, 1929. The original contract amounted to \$18,806. The material and equipment for drilling this well arrived during the latter part of May. The well was located 575 feet north of the center line of the institution and four hundred feet west of the east tracks. The well was started with a twenty-three inch hole. Limestone was encountered thirty-six feet below the surface. At a depth of sixty-three feet the hole was reduced to nineteen and one fourth inches. On July 16, at a depth of 317 feet, shale was encountered and continued to a depth of 392 feet. At this point limestone was again encountered and continued to a depth of 454 feet. On July 26, shale was again encountered. The strata reached a depth of 470 feet below the surface, at which point the hole was reduced to fifteen inches. On September 15, St. Peter's sand was reached at a depth of 885 feet. At a depth of 935 feet the bit became stuck and fishing for it continued from September 19 to October 14. A mud vein was found at a depth of 1,00 feet. The tools were again stuck and remained here from October 18 to October 30. On November 6, limestone was reached. Here the drill was broken and work was stopped on account of cold weather until January 17. Drilling was then resumed and Potsdam sand was encountered at a depth of 1,395 on January 24. Limestone was again reached at 1,425 feet. Drilling continued to a depth of 1,755 feet, where two strings of tools were lost. The tools were finally recovered during the week of April 26. The hole was cleaned out and when measured found to be 1,760 feet deep. Testing of the well was postponed until the storm sewer north of the well could be completed and a pipe then run from the well to the sewer. A meter was installed in the line and several testes were made, including a continuous test of seventy-seven hours. During this time an average of 470.7 gallons per minute were pumped. A contract was awarded to S. P. Geiger and Company, CHicago, for the installation of a deep well turbine pump, connected direct with a seventy-five horse power motor. The original contract price was \$6,100, and later credit was accepted for the use of Cumberland turned ground steel instead of stainless steel shackling.

OUTDOOR SUBSTATION

On October 7, 1929, a contract was given to the U.S.A. Company, Chicago, for the construction of a 33 K. V./2300 outdoor substation, to have three step-down transformers in each of two banks. The contract price was \$11,440. This substation was located 167 feet north of the center line and 152 feet 6 inches from the east track. Materials arrived

the latter part of November and in January the transformers were set. In February, English Brothers started work on the platforms and foundations, but the work was delayed on account of inclement weather. In March, the meter house was completed and a switching station installed. The lines from Momence were cut in and tested the first part of April.

ELEVATED WATER STORAGE TANK

On October 7, 1929, a contract was given to the Chicago Bridge and Iron Works for the construction of an elevated steel water storage tank to have a capacity of 500,000 gallons. The contract price was \$42,100. The tank was to be constructed on eight fabricated steel columns and to have a height from the foundation to the eaves of approximately 137 feet. The tank was to have an inside diameter of fifty-one feet and equipped with revolving ladders on the inside and on the roof. The tank was placed exactly on the center line of the institution. Excavating was started the latter part of January, but progress was retarded by severe cold weather. The excavation was completed the first part of April. A soil bearing test was made at each pier. The first pier was poured the first of March and all eight were completed by the middle of April. The piers had spread footings and the minimum depth was eleven feet six inches. There was a slight delay in the work of construction, due to the fact that the Chicago Bridge and Iron Works used non-union men. Later an agreement was reached by the union and contractor and by the middle of June the tank was ready for testing. In the meantime, arrangements were made to use the pumping equipment of the various contractors to fill the tank with water.

CHIMNEY

On October 10, 1929, the Alphonse Costodis Company, Chicago, was given a contract for the construction of a chimney. The contract price was \$11,810. On October 25, the chimney was located forty-one feet north of the center line of the institution and seventeen feet eleven inches west of the building line of the power house. Excavating was started the latter part of October. An octagonal base faced with No. seven red colonial brick was carried to height of forty feet. Above this base, perforated radial brick were used with a four inch radial brick lining. The thickness of the wall was reduced from eighteen and one-fourth inches at the base to seven and one-half at the top. The chimney has a height of 180 feet above the base and an inside diameter of ten feet. The top was finished with reinforced cement cap. A breech opening, fourteen feet one inch by six feet one inch, and lined with fire brick was constructed with the bottom twenty-one feet above the foundation. The work was done during the winter weather and completed during the latter part of December.

WATER DISTRIBUTING AND FIRE PIPING SYSTEM

The drawings and specifications for the water distributing and fire piping systems were prepared by Mr. L. A. Snider. On February 19, the contract was let to Merkle Contracting Company, Kansas City, Missouri. The contract price was \$44,000.

SANITARY AND STORM SEWER SYSTEM

On February 19, 1930, a contract for the installation of the sanitary and storm sewer system was awarded to Geo. G. Anderson Company. The drawings and specifications were prepared by Mr. L. A. Snyder, consulting engineer. The contract price was \$117,872. It was necessary to formulate in advance a systematic and comprehensive plan of procedure for the correlation of this work with that of the contractors on the water lines and construction. This was necessary so that all could work simultaneously and with efficiency. Arrangements were made to have reinforced concrete sewer pipe, from thirty-two inches to forty-eight inches in diameter, fabricated in Manteno adjacent to the Illinois Central tracks. The progress of the work was handicapped by poor working conditions. Considerable difficulty was encountered on account of the caving of the banks. By the end of June the contractor had completed the sanitary and storm sewer system north of the center lines as well as practically all thirty inch and twenty-four inch lines south of the center line. When the forty-eight inch outlet sewer was installed it cut off a number of farm drain tiles ranging from six inches to twenty inches in diameter. These lines were part of an extensive farm drainage system which took care of the farm belonging to the State and to neighboring farmers. To meet this emergency, a twenty-four inch farm drainage tile was installed adjacent to the main outlet sewer for a distance of 1,700 feet.

SEWAGE DISPOSAL PLANT

On February 19, 1930, Keuhn Brothers were given a contract for the construction of a sewage disposal plant. This plant consists of one preliminary settling tank, six aeration tanks, one final settling tank, a sludge bed and a pump house. The plans and specifications were prepared by Mr. L. A. Snider, consulting engineer. The contract price was \$62,200. The plant was located with the south line of the digestion tank forty-seven feet from survey line sixty; and the east end of the screen box 225 feet east of survey line 0. Excessive surface and ground water made excavating difficult and four pumps were kept going constantly. The excavation in rock was approximately six feet in depth. After the aeration tanks had been excavated to a point where forms could be set, additional pumps had to be used to keep the tanks dry. At this writing concrete is being poured but it will be some considerable time before the plant is finished.

TUNNELS AND WATER STORAGE RESERVOIR

On April 13, 1930, Mr. Wm. C. F. Kuhne was awarded a contract for the construction of the water storage reservoir, heating tunnels, and transformer vaults. Plans and specifications were prepared by Mr. L. A. Snider, consulting engineer. The contract price was \$132,895. The water shortage reservoir is designed to have two equal compartments and a small valve room on the north side. Excavations were started on May 20, and completed by the end of the month.

The contractor then started excavating for the tunnel. Concrete work was delayed on account of the slow delivery of reinforcing steel. Footings and floors of the water storage reservoir were poured in the middle of June. The tunnels were divided into forty foot sections. The floors were poured in consecutive sections while the sides and tops were poured in alternate sections.

POWER HOUSE

In November, the firm Granger and Bollenbacher, Chicago, prepared plans for the power house, male and female dormitories, five cottages for physicians, alterations to the managing officer's residence and the farm house. These plans and specifications were prepared under the direction of the supervising architect, Mr. C. Herrick Hammond. On March 12 1930, English Brothers, Champaign, Illinois, were awarded the contract for the general work. This contract amounted to \$588,896. On March 13, the power house was staked out and tied in with the present chimney. Excavating was then started. Slight discrepancies between the plans, elevations and structural drawings were straightened out and a revised set of structural drawings was issued on March 28. Toward the end of March, a heavy snow storm delayed the excavating. During the progress of excavating it was found that part of the foundations, including the hopper bottom, were on solid rock, while most of the interior column footings and part of the outside wall footings had bearings on blue clay. It was then decided that piers extending to solid rock should be placed under these interior columns and under the exterior walls at intervals of ten and twenty feet. The cost of the extra piers was partly offset by reducing the size of the columns and by omitting the special spread footings originally designed for bearings on blue clay. Work was delayed until revised footing plans could be received. However, work was resumed on May 2, and the contractor started pouring concrete during the same week. As soon as the footings had been completed, the walls on the north side were poured and the steel columns and framing installed so that the boiler room floor could be poured. This was done on June 28, and the work on the north and center sections was pushed in order to permit the erection of the boilers.

ELECTRICAL DISTRIBUTION

The plans for the electrical distribution system prepared by Mr. Snider, under the direction of the supervising architect, include the following:

Electrical wiring for the tunnels and transformer vaults.

Telephone conduit and duct system.

Street lighting system, consisting of 136 lights distributed through the grounds.

A 2300/230-115 volt distribution system consisting of an indoor switching substation connected to an outdoor transformer substation and an interconnected primary and secondary cable and duct system running through the grounds and furnishing service connections to the various buildings.

The contract for this work was awarded to George S. Schugmann, Abingdon, Illinois, on April 18, 1930, The contract amounted to \$70,258. The contractor began the work the latter part of June.

KITCHEN

The kitchen is a one-story building designed to have an officers' and employees' dining room in the front section. The rear section is given over to the kitchen requirements, including cold storage and bakery. There has been considerable delay in the construction of this building due to revision of plans and consequent delays pending a settlement of

additional cost.

Excavating the main tunnel which passes through the kitchen on the north side was started the later part of May. Excavating for wall footings followed and concrete work was begun in June. At this writing the construction of this building has not progressed above the foundation.

EMPLOYEES' DORMITORIES, PHYSICIANS' COTTAGES ETC.

The general work on these buildings was done by English Brothers, Champaign, Illinois. The mechanical work was executed by the following contractors, under contracts dated March 12: Electrical contract, C. R. Cento, \$11,990; plumbing contract, Carson-Payson, \$23,459; and heating contract, Home Company, \$14,490.

Excavating for the male dormitory was started on Monday, April 19. It was completed by April 25, and a soil bearing test was made. Work on the female dormitory was started the following week. Rock was encountered above the finished floor and in order to avoid expensive excavating in rock the finished basement floor level was raised approximately six inches. The dormitories are two story buildings, having 52 rooms each. The floors are reinforced concrete girder, beam and joist construction. The finished floors are terrazzo. The exterior walls are faced with red colonial brick similar to that used in other buildings. Steel trusses and roof framing were used with slate roofing. This also matches the roofing on buildings previously constructed. By the middle of May, the foundation of the male dormitory had been completed and brick work started. Footings for the male dormitory has been poured, the form work for the concrete walls were constructed, the foundation walls being poured the latter part of May. By the end of June, the brick work on both buildings had been completed to the second floor. The painting of these buildings was sublet to W. P. Nelson Company, Chicago.

The heating and plumbing progresses satisfactorily with the general work. Some difficulties were encountered in connection with the electrical work due to inaccuracies in laying out the in-exposed conduits, lack of material, etc. As a consequence this work lagged behind other trades.

Work on the physicians' cottages was started the first part of April. The footings and foundations were completed the first of May. The brick work was then started but there was some delay pending the arrival of stone sills and window frames. The physicians' cottages are one-story bungalows of masonry construction, faced with red colonial face brick, similar in type, each having a kitchen, bath, serving room, and dining room, living room and two bed rooms and a screen porch just off the living room. The fifth cottage is similar in type, with the exception that it had one additional bed room.

The brick work progressed rapidly and the roof framing was started the first part of June.

The work on the managing officers' residence consisted of a complete remodeling of a house formerly used as a farm house, with the addition of a two-car garage, a large sun porch, fireplaces, chimney, etc. The foundations of the building were repaired and new foundations were constructed where necessary. Old partitions were removed or repaired as were necessary. Old partitions were removed or repaired as were necessary and new partitions with metal lath and plaster installed throughout.

Roof framing was repaired and slate roofing and copper gutters were

installed. The heating work consisted of the installation of a complete radiation with necessary hot water storage tank and piping. This is connected with the central heating plant. An entire new plumbing system was installed in the building.

The work at the farm house consisted largely of patching the roof, removing and changing interior partitions and plastering where necessary. Interior painting and decorating and the refinishing of the interior and porch floors were also done.

DEDICATION CEREMONIES

With a brief but impressive ceremony the corner stone of the Administration building was placed in position on the morning of November 21, 1929, by C. Herrick Hammond, supervising architect. An audience of approximately one hundred state and city officials and residents of the vicinity watched the operation, which concluded a program of speeches dealing with the work accomplished in Illinois toward providing adequate accommodations for persons suffering with mental disorders. The ceremonies were in charge of Mr. Rodney H. Brandon, Director of Public Welfare. Mr. Brandon stressed the importance of expanding the present system of state institutions without unnecessary delay.

"With the completion of this hospital, the state," Mr. Brandon said, "will have a total of ten such institutions and the citizens of Illinois will have the satisfaction of knowing that the unfortunates within its boundaries are receiving the best treatment possible in hospitals that rank with the best in the world.

"This hospital, when completed, will house approximately 6,000 patients." He also referred to the number of beds being provided by the Department for the care of patients in this and other hospitals. He added that when this hospital is finally completed it would be the largest and best of any located west of New York and a real monument to the work being done in behalf of those stricken with mental disease.

Governor Emmerson found it impossible to be present, but sent his best wishes for the success of the hospital. Before coming to the hospital, Mr. Brandon stated, the Governor had entrusted him with the following letter to read:

"The rapid progress being made in the construction of the necessary buildings to make the new state hospital at Manteno a going institution is keeping faith with the people of Illinois by providing adequate care for the state's unfortunate wards. Improvements will be rushed at all our state institutions until every inmate is furnished proper quarters.

"Within recent years much of the horror has been taken out of the state hospitals. The padded cell and all that it typifies is gone. Occupational therapy, music, calisthenics and entertainment have replaced the gloomy monotony of institution life.

"Over forty-three and one-half million dollars, or 35.49 per cent of the state's biennial income, is now devoted to the work of the Department of Public Welfare. Maintenance of our charitable and penal institutions constitutes the state's greatest burden but the work cannot be allowed to lag.

"Illinois will go ahead building new hospitals where needed, adding to the old, keeping pace with the demand. While doing our most to relieve the

suffering of the mentally sick, we must work to restore reason while seeking means of prevention.

"The spirit of helplessness and hopelessness which have characterized the general conception of insanity must give way to one of optimism as new institutions such as the one at Manteno provide improved facilities for adequate scientific observation of the mentally afflicted. In such study we may eventually see the light that will bring joy to thousands of unfortunates who are now grouping in mental darkness."

Dr. Sidney Wilgus, state alienist, followed Mr. Brandon to the speaker's stand and spoke briefly on the functions of a hospital for the treatment of mental ailments. Dr. Wilgus stated that the number of persons annually being committed to state institutions for the insane is on the increase and the problem of caring for them is becoming greater each year. The fact that more inmates are being admitted now than in previous years, he stated, is not a reflection on Illinois but on the other hand shows that the citizens have provided places where they can be treated and are not allowing them to roam around by themselves.

The increase of mental cases during the past thirty-five years, the doctor said, has almost doubled and state hospitals, besides providing a place for the care of those stricken, are also being used as a training school where capable physicians can study the problems and be able to conduct a fight to reduce insanity in the country. The new Manteno institution, he stated, will be such a place and will fill a real need both as hospital and as a research school for physicians desiring to become better acquainted with the treatment of mental diseases.

Carl Jewel, Manteno, represented the mayor of that city, and expressed appreciation of the citizens that the State had chosen Manteno for the site of the new institution. He also traced the history of development of the State's program of taking care of the mentally afflicted and lauded the work now being done along those lines.

The relation between a state hospital and the community where it is located was related by Mr. A. L. Bowen, superintendent of charities, of the Department of Public Welfare. Mr. Bowen predicted that the city of Manteno would grow around the institution and at some future time the hospital would be located in the center of the city instead of on the edge as it is at present. A city which possesses such an institution, he said, is the envy of its neighbors and is certain of becoming a more important center of activity as a consequence of having a hospital within its borders.

The selection of Manteno as the site for the new institution, he stated, was made with care and both the State and the city can justly be proud of the establishment. "With it as a landmark, Manteno," Mr. Bowen said, "is assured of a continuous growth and will never regret that the State decided to erect the hospital in its territory."

The services were conducted on the steps of the Administration building and were opened with invocation by the Reverend Peterson, and closed with benediction by Monsignor Primeau, Manteno. A platform for the speakers was erected on the stairs and before the stone was placed into position, the state officials who accompanied the party from Springfield and prominent citizens of the community were introduced to the audience by Mr. Brandon. Among those present were Colonel Frank Wipp, superintendent of prisons, Mrs. Silvis, assistant director, A.C. Everingham, state farm advisor, C. H. Hammond, state architect, and Dr. George Edmonson of Kankakee State Hospital. The audience also included more than a score of persons prominent in public life in

Kankakee.

The stone was carved out to permit the insertion of a copper box containing various documents and other material to serve as a record of the occasion. The photographs of Governor Emmerson, Ex-Governor Len Small, and members of the present state administration were also included in the contents of the box. The task of sealing the stone was not completed until the following day. This was done in order to permit the insertion of the two Kankakee newspapers of this date and the regular edition of the Manteno paper.

CONCLUSION

While the above report is a brief outline of the building operations that have been under way for the past few months, it is believed that several months will have elapsed before patients can be received. If the work progresses according to schedule, it is thought that the first quota of patients can be received during the early winter.

GEOLOGY NOTES:

***St. Peter's sand** is considered to have been derived from erosion of older sedimentary rocks because of its high degree of (quartz) purity and degree of rounding of grains. Copyright © Arkansas Tech University ALL RIGHTS RESERVED
<http://www.atu.edu/acad/mining/people/misk/histfld1.htm>

*The **St. Peter Sandstone** was named by Owen (1847, p. 169-170) for the exposures along the river then called St. Peter (now the Minnesota River) in southern Minnesota. A St. Peter type section was later designated (Stauffer, 1934) as the exposures in the bluff at the junction of the Minnesota and Mississippi Rivers. This name has had wide use in the Midwest and in Kentucky. Copyright © 1997 The Trustees of Indiana University
<http://igs.indiana.edu/geology/structure/compendium/html/comp0y78.cfm>

*All the deepest wells in this region terminate in the midst of a great sandstone formation, the Potsdam sandstone, This is the lowest known rock formation in the State, and is shown at the bottom of the section. Some of the wells penetrate this sandstone several hundred feet, but none pass through it. In parts of Wisconsin it has a thickness of 1,000 feet. This lower group of sediments, the Potsdam sandstone, which is very widely distributed in the United States, is of later Cambrian age. Since this is the earliest of the Paleozoic formations in the northern interior, it is evident that a large part of the continent was land area and was exposed to denudation while the earlier Cambrian formations were being deposited in the eastern and western seas. Chicago Geology: Paleozoic by Ellin Beltz <http://ebeltz.net/folio/cfol-2.html>

