

GREAT DAM AND CANAL BEING BUILT NEAR BEND

Irrigation Company's "North Canal" Operations to Cost \$150,000--Means Big Expenditure in Bend and Monthly Payroll of \$17,000

With the construction of the greatest irrigation diversion dam in Oregon, the Central Oregon Irrigation Company is preparing to water some 18,000 more acres of Crook county land. The cost of the North Canal dam and the 7460 feet of concrete lined canal leading from the dam to the old Pilot Butte will be \$150,000. Some \$200,000 more will probably, within the next few years, be spent on the extension of the system by the building of laterals.

Work on this project was begun in April and by the first of September it will be finished, according to the statement of Contractor L. F. Gerdetz. The dam is located less than a mile below Bend, at a point the equal of which is hardly to be found elsewhere in the state except at some other point on the mighty Deschutes river.

The height of the dam from the lowest point of excavation to the crest where the water will flow over it is 40 feet. The extreme length of the semi-circular mass of concrete is 300 feet. At the bottom the thickness of the dam is 27 feet and at the top 6 feet. On each side of the stream the rocky banks form a natural barrier, and down to solid rock in the river bed the foundation of the dam is laid, making it an impregnable structure that will stand like adamant against the great weight of water which it will impound.

The dam will be provided with four gates through which the water may pass at any time by the adjust-

ment of levers. When the mountains of snow that feed the river begin to waste away in the warm sunshine of June and the liberated waters seek a passage to the sea through the tortuous bed of the Deschutes, there will be no danger of the dam giving way or flooding the country--these big spillways which the engineers have provided will be opened to care for the surplus flow, and over the crest of the dam will pass only the normal amount of water.

Much Material Used. In constructing the dam 4000 cubic yards of stone will have been moved, while 5500 cubic yards of concrete will have been poured to make this greatest of all barriers that Oregon has for the impounding of water in an irrigation project.

The normal flow of water in the Deschutes at this point is about 1500 second feet, and at no time will there be less than from 250 to 500 second

feet. Backwater from the dam will reach as far up the river as the present power house of the Bend Water, Light & Power Co. The Central Oregon Irrigation Co. holds from the state right to back water up to a point having an elevation above sea level of 3591 feet. The top of the dam has an altitude of 3588 feet, and Contractor Gerdetz says that at no time will the backwater reach more than 3590 feet, the rights of no other water claimants being interfered with.

The canal into which the water impounded by the dam will be turned will be 7460 feet in length--nearly a mile and a half--and every foot of it will be concrete lined, at a cost for the concreting alone of \$9 per cubic yard. The lining will be six inches thick. The width of the canal at the bottom is 12 feet, with a slope upward of one and one-fourth to one. The depth is 9 feet 2 inches. The intake will be 35 feet wide.

The capacity for carrying water will be 1000 second feet--at first not more than 400 second feet will be diverted and carried to the Pilot Butte canal. The flow will be swift--a velocity of 10 feet per second.

Many Power Possibilities. Some 6000 feet from the intake, the water in the canal will drop 20 feet and just as it enters the Pilot Butte here will be a fall of 5 feet. With the 1000 second feet flowing, these two falls will furnish 3000 horsepower using the water not only for irriga-

ed labor. The business life of Bend has received a great impetus this summer from the construction of this project. In addition to the money which the laborers have spent, and will spend, here, the contractor has distributed in town about \$2500 a month for provisions, lumber, hardware and other things.

A large camp is being maintained at the construction works. A spur track was built from the railroad, landing all the building material right at the point where it is used. The machinery of Contractor Gerdetz includes two concrete mixers, six donkey engines, six derricks, three rock crushers, steam drill, etc. The rock in the concrete work is crushed lava, the supply of which is exhaustless. Tests which Mr. Gerdetz had made showed it to be without a superior for this work, being very hard and with sharp edges.

The possibilities of this project for producing power as well as irrigating vast tracts of land is enormous. In addition to the horsepower derivable from the canal water, all the waste that goes over the dam can be utilized for power. The 40 foot fall over the dam can be made to produce a large horsepower, and by construction of a flume on the west side of the river and carrying the water a short distance these possibilities can be multiplied.

In constructing the dam, work was begun on the east side of the river, a temporary dam diverting the entire amount of water in the river to the opposite side. The flume of the Deschutes Reclamation and Irrigation Co. ran along the east bank of the river and it was necessary to cut this. To take care of the settlers, temporarily, a flume was built across the river and around the construction work, then back to junction with the old part below. The building of the dam permanently puts out of commission the Swalley flume, but the settlers whose lands are watered by it will not suffer. A contract has been signed by the C. O. I. Co., whereby it is to deliver into the Swalley flume all the water required by the irrigation system. This will be accomplished by a pool or basin below the dam, into which the waste water will be turned.

Other Irrigation Work. Exclusive of the North Canal expenditures, the irrigation company is doing a lot of work now improving its system. About 100 men are now employed regularly by the company. The average monthly payroll is not less than \$10,000, and as much of this is spent in the vicinity of Bend and practically all of it goes to farmers who are on the lands of the segregation, it is apparent what a benefit such an expenditure is to the community at large.

Thus far this season, says Manager Roscoe Howard, some 50 miles of laterals have been completed and are in course of construction.

the people of the interior, which has in more than one instance saved a life that would have been lost had the patient been compelled to go further than Bend for surgical aid or hospital care.

THE BUSINESS OF THE HOSPITAL HAS FIRST HOSPITAL BABY.



Marjorie Belle Smith and Her Nurse, Mrs. G. W. Hall.

outgrown its present quarters and plans for a new building are well under way. The new building will probably be finished within a year and will be modern and up to date in every particular, completely equipped and well furnished.

SUFFRAGE WORKERS HERE

By M. MYRTLE BROWN. Until recently there was, apparently, very little interest in equal suffrage, locally.

In May Mrs. Sara Baird Field Ehrgott visited Bend and delivered several lectures. The audience which greeted her upon her arrival was small and unresponsive, but with each meeting the attendance and enthusiasm increased until they amounted to an ovation.

Later an Equal Suffrage League was formed in Bend, with a goodly number of charter members. Considerable literature has been distributed and posters have been placed in prominent spots.

While the local league was not represented at the congress of leagues which convened in Portland on June 7, greetings were wired to be read to the convention.

As a result of a number of things which have happened recently, many serious minded mothers who were, they thought, opposed to equal suffrage, realize that this is the only possible chance for a solution of many problems that vitally concern the home.

DRY LAKE DISTRICT RICH

In Crook county, to the north of Hampton Butte, in township 20, south, range 20 east, is a territory known as the Dry Lake district. Improvements in that neighborhood are being made rapidly, grain and other crops are looking good this year. Stock raising is also an important industry here. Chickens also do well, the sunny climate and dry weather during winter being well suited to poultry producing. There is considerable government land yet untaken in the Dry Lake country.

There is a school in the district, and this fall a school house will be built.

Hospital Here Accomplishes Good

As necessity was the mother of invention so was it also the primary cause for the existence of the Bend Hospital. A Bend resident must have surgical treatment and that soon or remain deprived of health for the remainder of a miserable lifetime. The patient's home was not a suitable place in which to perform a major operation, and furthermore the patient had no money and could not go to Portland or elsewhere for surgical aid, hence the starting of the hospital.

August 20, 1909, the Sisemore cottage on Oregon street, which had been used as a dwelling house, was rented. It was thoroughly cleaned and disinfected and one room was fitted up for an operating room. On August 21 the operation was performed. On September 14 the next case came with the arrival of Marjorie Belle Smith, a 12-pound baby, daughter of Mr. and Mrs. N. P. Smith of Bend.

During the first 14 months of its existence, the hospital was under the management of Mrs. G. W. Hall, who came from the Good Samaritan Hospital in Spokane, during which time 75 cases, mostly surgical and obstetrical, were cared for. When construction was commenced on the railroad, a new building was erected and the capacity increased to 25 beds. While construction work lasted the men's ward was never empty and rarely had less than a half dozen patients in it.

In October, 1910, Mrs. Hall was succeeded by Miss M. Ellen Kershaw, a graduate of St. Luke's Hospital in Chicago, who continued as superintendent until November 11, 1911, when she was succeeded by Mr. and Mrs. Benjamin McCaffery, who are now in charge. Mr. McCaffery came from Bellview Hospital, New York, while Mrs. McCaffery is a graduate of the Philadelphia Hospital.

The hospital is not now and never has been a paying institution, but has managed to exist although it has never received a contribution from the outside except being furnished with free water and lights, donated by the Bend Water Light & Power Co. It was founded at a time when the nearest railroad point was nearly 100 miles away and it was next to impossible for a person seriously sick or injured to get to the nearest hospital at The Dalles, and it has continued to furnish an accommodation to

Many Churches Prosper in Bend

PRESBYTERIAN.

Rev. B. F. Harper, now living at Milton, Ore., was the first minister of any denomination to preach the Gospel on the Deschutes river. He is a Presbyterian and was then acting under the auspices of the Board of Missions as a Sunday School missionary. He visited Bend in that capacity and organized a Sunday School in the old log school house still standing. The Sunday School was organized about January 1, 1902. Rev. Mr. Harper, however, held services occasionally as early as November, 1900. The first Sunday School superintendent was Levi D. Wiest, who has been more or less prominent in the moral and religious life of Bend through all these years.

This Sunday School was well attended and represented fully 75 per cent of the young people of this community, which condition lasted for a number of years. This was the union Sunday School and with unbroken continuity is represented by the union Sunday School now held in the Baptist church. Rev. W. H. Hall, D. D., of Portland, Ore., came to Bend in June, 1903, and organized the present Presbyterian church, which was the first denominational organization on the Deschutes river, by electing a board of trustees and securing articles of incorporation, now on file with the Secretary of State.

At this time regular services were instituted and have been maintained with a degree of regularity ever since.

Rev. Mr. Alter, now of Pennsylvania, was the next minister, being succeeded by Rev. Mr. Commofoord, living in Portland, Ore., at this time. Rev. J. A. Mitchell, who is buried in the Bend cemetery, succeeded Mr. Commofoord. In this connection it might be interesting to state that the earlier Sunday School superintendents were L. D. Wiest, S. H. Dorrance and Dr. W. S. Nichol, who was succeeded by S. C. Caldwell, a business man still living in Bend.

Rev. I. I. Gorby, Ph. D., a member of the Presbytery of Chicago, came to Bend in October, 1911, and during his ministry here considerable progress has been made. A Presbyterian Ladies' Guild has been organized with a membership of some 15 ladies. Funds have been secured toward the erection of a new church on lots given by the Bend Co.; the church has been fully organized by the election of a session and board of trustees and a thorough canvass has been made showing a large Presbyterian constituency in Bend, the largest, perhaps, of any denomination.

The session, consisting of Rev. Dr. Gorby, moderator; L. D. Wiest, C. E. Benson and Chas. D. Rowe, clerk, is very hopeful for the spiritual welfare of the Presbyterian church in Bend. The trustees, consisting of L. B. Baird, John H. Blumner, C. S. Hudson, W. B. Sellers, F. O. Minor, Dr. U. C. Coe and C. S. Benson, at a recent meeting organized by electing Dr. U. C. Coe, president, C. S. Hudson, treasurer, and J. H. Blumner, secretary. The board is now active in making preparations for the erection of a handsome stone church building.

BAPTIST.

The First Baptist Church of Bend was organized July 31st, 1904, with 30 charter members. It was incorporated in October of the same year, and on November 29th it received a deed to its present property from the Pilot Butte Development Co.

Its first trustees were, T. W. Triplett, J. I. West and Millard Triplett. A. M. Drake was afterward chosen in place of T. W. Triplett.

The first Board of Deacons were

G. W. Triplett, E. A. Ammons, John Barnes and T. W. Triplett.

Only three persons who joined the church eight years ago are members now, and they are non-residents. There has been a constant procession of members, coming and going and the present membership is about the same in number as it was eight years ago.

At the outset the church had a hard struggle to get a meeting house, but finally, with the cooperation of the Oregon Baptist State Convention and the American Baptist Home Mission Society, the church was built. The church building has been used by practically all denominations since its erection.

Different clergymen supplied the pulpit more or less regularly for some years till in January, 1911, the church secured a settled pastor, Rev. C. M. Cline, who served a year.

Rev. H. B. Foskett, Field Secretary of Oregon, has been pastor since the first of the year. For some time past Mr. Foskett's duties have taken him to various parts of the state so he could spend but little time in Bend, except to fill his Sunday appointments twice a month, but he has now moved his office to Bend and will give at least half of his time to the work here until a pastor can be secured.

CATHOLIC.

The first services of the Roman Catholic church in Bend were held in private houses in 1904, Rev. Father Hickey officiating. When the public school moved into its present quarters in 1905, the old building became the property of the church, and since has been used as a place of worship. For some time the priest came but twice a year, until in 1909 Father Luke Sheehan became resident priest. Father Butler is located here now.

This portion of Bishop Riley's diocese is under the administration of the Franciscan fathers. The church committee is composed of Barney O'Donnell, K. D. McIntosh and Geo. Bronterhouse. The church owns its building, which stands on rented ground, and also owns an acre of land near the water tower, acquired in 1905. Affiliated with the church is the Ladies' Altar Society.

The officers of the Altar Society are: Mrs. Hugh O'Kane, president; Mrs. H. W. Skuss, secretary.

METHODIST.

About 12 years ago the first sermon by a Methodist minister was preached in Bend, in the log schoolhouse, by Rev. Mr. Gowan. Since that time services by ministers of this denomination have been held more or less regularly, and at present the local Methodists have a regular pastor, Rev. J. E. Williams, who also serves the Prineville congregation, preaches here every alternate Sunday. The Methodists do not have a church building, but plans are under way for the erection of one on Ohio street, where they have a good corner location.

Bend is in the Columbia River Conference, which at its next meeting in September will assign a pastor who will devote his entire time to the local field.

Services are held in the hall over the postoffice. Sunday school exercises are conducted every Sabbath, and a good Epworth League has been organized. In connection with the church the ladies have an Aid Society.

EPISCOPAL.

Among the church people of Bend is a goodly number of members of the Episcopal denomination. This territory is in the Eastern Oregon diocese, and about twice a year Bishop Robert E. Paddock makes a visit here and conducts services. Other ministers of this church also come occasionally. The Episcopalians own an excellent building site in Park addition upon which they later expect to erect a church.

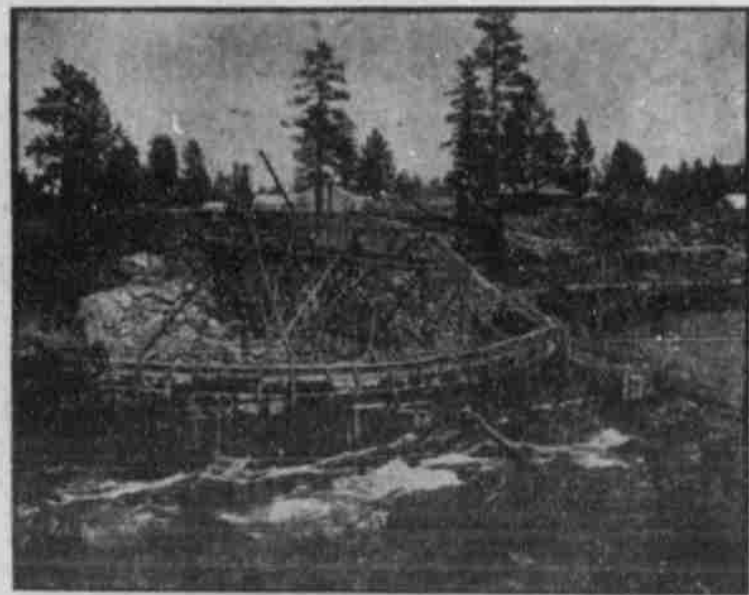
There is an Episcopal Guild composed of the women of this faith.

SUBJECTS FOR JULY.

Rev. Dr. I. I. Gorby has had printed cards announcing his preaching dates in Bend during July. He will speak morning and evening at the church on July 7 and 21. His subjects for these four sermons are as follows: "The Ideal Church, Its Spirit and Purpose"; "The Humanitarian Ministry of Jesus"; "The Philosophical and Biblical Bases of Christian Experience"; "The Sublimity of All Arts, Self-Mastery."

MINISTER CONTRIBUTES \$100.

Word has been received from Rev. Robert L. Alter, Ph. D., now of North Washington, Pa., who will be remembered by old Bend citizens as a former pastor of the Presbyterian church of the city, remitting \$100 for the new Presbyterian church now under process of erection. Rev. Dr. Alter has shown, in a real substantial way, his interest in his old parish. The Prineville people will no doubt be glad to hear about Dr. Alter for he served the Prineville congregation at the same time he ministered here.



Construction Work on Dam, One Mile From Bend.

ment of levers. When the mountains of snow that feed the river begin to waste away in the warm sunshine of June and the liberated waters seek a passage to the sea through the tortuous bed of the Deschutes, there will be no danger of the dam giving way or flooding the country--these big spillways which the engineers have provided will be opened to care for the surplus flow, and over the crest of the dam will pass only the normal amount of water.

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"North Canal" Concrete Lined Flume

feet going over the dam. During the past few weeks there has been something like 2500 second feet flowing, due to the meltin snow in the moun-

tain. The payroll was \$15,000. Between 75 and 100 of these men are permanent residents of the Bend country, the remainder being import-

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