

Yakima Herald - Ray Ruppert

Irrigation in Washington

In the summer of 1889 the lazy streets of North Yakima jerked awake when black smoke curled from the heat haze toward Union Gap. The plume climbing skyward meant the train, still a sight to draw a crowd, was puffing through the acres of sagebrush toward the tiny, new settlement set in a desert.

On this day, 44-year-old Walter Granger stood on the rear platform of the end car, his back against the wood wall of the coach and his right foot braced against a railing. His body rocked with the sway of the train as he studied the countryside. Absent-mindedly, he slapped the flat of his hand against his coat lapels; white dust rose in a cloud.

What would it be like, he wondered, this new city of North Yakima? Would it become the capital for an empire? Or the shabby end of a grand dream? His mind drifted back, away from the sagebrush, to the paneled office in St. Paul where he had sat in a leather-covered chair to face across a mahogany desk John F. Oakes, president of the Northern Pacific Railway.

"Granger," Oakes had said, "we've got a proposition to make to you. We've heard about your work in Montana, building canals to irrigate the land.

"Our company was deeded thousands of acres by the government when we built our line through the Yakima Valley in Washington Territory. There's nothing on that land now but sagebrush and jackrabbits. It's good land, right enough. But it's dry,

dry as dust.

"We want it farmed. Farms will bring people. And people will bring commerce for our trains. We think a canal might be built, taking water from the Yakima River and bringing it around to water the land."

Oakes had unrolled a map, spreading it across the desk. With a pen, he had pointed to a mark.

"This appears a likely spot to start. There is now a dam in the river at this point for a small ditch called Konnewock Canal. We want you to go to Yakima Valley, build an irrigation canal. If you do, we'll give you an option to buy our land there for \$1.25 an acre."

Granger had thought the matter over. In his mind, he peeked at the cards he held and the stakes of the game. Digging such a canal could break a man's body or send him to his grave. A thousand things could go wrong. The money he had put by could melt like ice before the sun.

Yet -- At 44 Granger looked and felt 30. He had gambled before on high stakes and won, chucking a \$15,000-a-year job as a salesman to build four reclamation projects in Montana.

The railway could be offering him a ticket to fabulous riches.

But first he must know: Will the land in this Yakima Valley hold water? Can such a canal be built? Will the land grow commercial crops? Is the scheme practical or just a grand dream?

He framed his answer carefully:

"Before I can say yes or no, Mr. Oakes, I'd have to go to Yakima Valley and look it over."

Irrigation - 3

Granger's visit to North Yakima and the Lower Valley that summer was not the beginning of irrigation in this Valley. But the wires he sent to Oakes, agreeing to the proposal, and to his engineers, calling them to work, weaned irrigation from its infancy.

From that time on, the era of little ditches and big dreams was ended. Granger and those who followed brought the dreams to earth and dug the ditches big. They gouged out the Sunnyside Canal and sought to build dams at mountain lakes to trap the melting snow. Reluctantly, they loosed the genie of federal government to finish the Sunnyside Project and to build the Tieton and Roza Projects.

When Granger stepped off that tiny train into the dust of infant North Yakima, he found nearly a quarter of a century had passed since the first ditch was dug to irrigate farm land in Yakima Valley.

Thomas and Benton Goodwin in 1866 dug a small canal to bring water from Yakima River to their five-acre wheat field about a mile south of the present city of Yakima. Water soaked through the field and the Goodwins gathered a fine harvest, about 40 bushels to the acre of the first wheat raised in Yakima Valley.

Even before the Goodwins, there had been garden ditches. Missionary priests in the early 1850's drew water from Ahtanum Creek into their garden and small orchard. Kamiakin, noted Yakima Indian chief, took water from Ahtanum Creek as early as 1853 for a small ditch that irrigated his garden at his home near where the village of Tampico now stands.

Between 1866 when the Goodwins dug their ditch and 1889 when Granger came to make his survey, dozens of small ditches were planned and many of them were

Irrigation - 4

dug. Several are still carrying water, among them the Nelson Ditch which takes its water from Naches River near Glead. The ditch was dug in 1867 to carry only seven second feet of water.

In 1869, Capt. Simmons and a Mr. Vaughn with others made a short canal under a sort of co-operative system, taking water from Naches River to lands below the junction of the Yakima and Naches Rivers. It was the ancestor of Union Canal.

In the early 1870's, Charles and Joseph Schanno and Sebastian Lauber dug a canal from a point on Ahtanum Creek to their half section of land near the present site of Yakima. The effort was laughed at and ridiculed by people who thought the idea of irrigation absurd.

But the Schanno brothers persisted. In 1874 they laid out a ditch from a point on the Naches River eight miles from their farm. The Schanno Canal, large for that early time, measured 18 feet wide and 18 inches deep.

An important canal was dug by Selah Valley Ditch Company. The canal was based upon a filing of a water right at a point on the Naches River, 30 miles above its mouth. During 1887, the canal was being built to a point where elevations permitted water to flow onto rich lands near Selah. Selah Valley was a big affair, 12 feet wide on the bottom, 24 feet wide on the top and dug to carry water 3-1/2 feet deep.

At the same time the Moxee Company was constructing a large canal on the east side of the river. The ditch was 18 feet wide on the bottom and carried water 3 feet deep.

Chester A. Congdon, a Chicago capitalist who had made a fortune in copper mining, financed the building of Congdon Canal in 1893. The ditch was the first to

reach the high land section west of Yakima. Within its banks, water flowed from Naches River 12 miles above the river mouth along the hillside to the bluff at Painted Rocks. Then, the water squeezed through a siphon across the Cowiche Valley to the opposite heights. From there it spread over the rolling lands south of White Hollow.

Important to Sunnyside Canal's history, which Granger was to build, was the small Konnewock Ditch, the first effort of permanent importance at irrigation south of Union Gap. Robert Dunn, Joseph Bartholet and P. J. Flint formed the Konnewock Ditch Company in 1879.

The ditch took water from Yakima River near the present site of Sunnyside Dam. Incorporators proposed to extend the ditch "as far as may be desired" and "to water and irrigate all the table lands on the route of said ditch."

J. T. Stewart, W. E. Thornton, J. H. Hubbard, P. Yolo, G. C. Jones and H. D. Lester incorporated Naches Cowiche Ditch Company on Jan. 3, 1880. Capital stock was put at \$1,000. Each incorporator had the choice of paying his share in cash or in work. Stewart paid \$50 cash but all the others, the record recites, paid in labor. That canal became known as Hubbard Ditch.

The years before the turn of the century saw the building of many small ditches and incorporation of many ditch companies. The list includes: The Moxee Ditch Company, Natchez Consolidated Ditch Company; Tietan, Natches & Yakima Flume Company; Iowa Flats Ditch Company, Fowler Ditch Company, Kiona Irrigational Canal Company, Wapatox Ditch Company, Wenas & Selah Canal Company.

While some men tortured through rock and brush to gouge out the rude, humble ditches, other men dreamed fabulous dreams. The dreamers expected that one day

5

Irrigation - 6

large canals crossing the earth near North Yakima would carry boats back and forth in commerce. They expected the ditches winding down from mountains would float logs to mills.

The Tietan, Natches & Yakima Flume Company was formed by Charles Schanno, L. H. Adkins, Joseph Stephenson with the intention of using the ditch to flow logs, cord wood, rails and lumber to Yakima City.

Yakima Improvement Irrigation Company which began in 1889 was an ambitious enterprise in the Kiona district. The first aim was to make a canal on the north side of the river for irrigating 4,000 acres of land acquired by the company and to furnish water to an additional 40,000 acres available to homesteaders farther down the river.

The plan contemplated a canal of sufficient size to carry boats into Yakima River and by means of dams in the river and terminals at Kiona to receive and discharge freight at the Northern Pacific station at that place. Hard times halted this scheme.

The state too had a vast plan. A survey had been made in 1895 of what was to be known as Naches & Columbia River Irrigation Canal. It was to have its intake on the north side of Naches River, to cross Yakima River by an inverted siphon, circle Moxee Valley to Rattlesnake Mountain and the lands overlooking Columbia River.

The plan contemplated using Bumping Lake as a reservoir. The Canal would have been large as a small river, carrying 2,000 second feet of water and traveling 140 miles. To some degree it would have blanketed the Sunnyside project.

This state scheme never came to pass. The Upper Valley opposed the plan; the Lower Valley was for it. The conflict prevented its realization. Finally in the Legislature of 1905, the state abandoned its irrigation plan.

Irrigation - 7

Another scheme, of this early period, a scheme that laid the foundation for today's great Tieton project, was born in 1876. Charles Schanno that year made a crude survey of Tieton River with a view to using water for fluming out wood.

Then came a suggestion by D. W. Stair in 1890. He proposed that water from the glaciers at the head of Tieton River be diverted into Cowiche Creek. W. H. Redman investigated, pronounced the project impracticable.

In 1891, the state enacted a law providing for irrigation ~~districts~~. The Cowiche-Wide Hollow District was formed. The district hired Guy Sterling to make a new Tieton survey. Sterling spent about \$4,000 investigating Tieton canyon. He made a report which was essentially the same as that to be made later by Charles M. Swigart for the reclamation service and which was followed in building Tieton Project although Swigart, not knowing of Sterling's survey, arrived at his findings independently.

In Aug. 1892, the district voted to issue bonds for half a million dollars to construct the project. Hard times enveloped the country and the plan was set aside.

It was into this atmosphere of irrigation fever, with small ditches being built and big dreams being dreamed, that Granger stepped on that summer day in 1889. His role in history was to shift the scene, setting the stage for the multi-million dollar government projects to the place of tiny farmer-owned ditches.

Granger knew no one when he stepped off the train. At Yakima City, he rented a saddle horse and bought blankets and provisions. One morning he rode slowly through Union Gap into Lower Valley to explore the land where the railway wanted the canal built.

He forded the Yakima River and pushed on down the Valley, to camp at night wherever he might be.

Several days away from Yakima City, in the heat of an afternoon sun, Granger reached for his canteen and swung it to his lips. No water came. The canteen was empty. Granger let the canteen fall back to the saddle horn and looked about him. He was far out in the lonely, arid hills under a hot sun and without water.

The situation was serious. Granger was thirsty; but his horse was in worse shape. All the rest of the day, Granger traveled through the sage and heat in the hope of reaching water. Night came. In the darkness, the horseman couldn't go farther along the strange, unfamiliar trails. He pitched camp and waited for daybreak.

At sunup, Granger was again on the move in his quest for water. His throat was sand dry as the sun climbed higher and hotter in the sky. His horse shuffled along, its head drooping. By now, Granger had hope. He spied Snipes Mountain and knew on the other side he would find Yakima River.

Man and horse struggled slowly up the ridge, topped the rise and looked at the beckoning river in the Valley below. Sliding and plunging through the sandy dust of the bluff, the horse and rider worked their way downhill. The frantic, unmanageable horse rushed into the water to gulp great mouthfuls.

Granger refilled his canteen and resumed his journey among the empty hills. He was some distance from the river when he decided to gamble his precious water, so dearly won, on an experiment. Kneeling among the sage Granger scooped a tiny canal in the dirt. He poured his water into the handmade ditch.

He proved his point; the tiny ditch held water. He was convinced a canal in that soil would hold water, too.

But the experiment chased Granger back to the river to refill his canteen.

8

Irrigation - 9

Days later, the weary horse and happy rider loped into Yakima City. Granger, slapping Lower Valley dust off his clothes as he went to the depot and sent his wire to Oakes: I'll accept your proposition. Then he messaged his Montana engineers: Come to work.

No time was lost. Engineers were soon in the field to run lines and set stakes. The era of construction was on. It was a period destined to be a strange jumble of hopes and fears, with the fortune of a lifetime at stake. Granger pushed on toward his goal despite a nationwide depression that forced several realignments of the canal company.

Under Granger's management, Sunnyside Canal was constructed to a point several miles below Zillah. On March 26, 1882, there was a public celebration at the headgates. Miss Dora Allen broke a bottle of champagne over the gates as they were raised and water gushed into the canal.

Onto the scene came a strange man to play a peculiar role in Yakima Valley's irrigation history. He was Paul Schultze, an agent for the Northern Pacific Railway who then lived at Tacoma.

Schultze was a man of expensive tastes and little apparent appreciation for the value of money. He spent lavishly.

He was land manager for the Northern Pacific and came to Yakima in 1885 to superintend removal of many buildings from Yakima City to the new railroad town at North Yakima.

Schultze planned the arrangements of streets and parks. He ordered trees planted along principal streets. It is said that Naches Avenue, with its central park

strip and double traffic ways, was his suggestion, and that it was patterned after Berlin's famous thoroughfare, Unter Den Linden.

That the trees might flourish, Schultze planned a system of irrigation ditches to water them. He filed an appropriation of water from Naches River for the "city ditch". For many years, the ditch fed the ditches along the sides of the streets while the trees grew to stately proportions.

Through Schultze, the railway proposed that the Northern Pacific take over the financing of the project and that a new company be formed to carry it on.

Granger liked the idea but argued with Schultze about the interest Granger would have in the proposed corporation. Granger asked 50 percent. Schultze said the railway wouldn't agree; he offered Granger a third interest. The offer was finally accepted and the Northern Pacific, Yakima-Kittitas Irrigation Company was formed. For his stock, Granger transferred to the company his option on railway lands.

Times were hard. The financial panic of 1893 was in the offing. Finally the railway told Granger it could no longer hoist the financial burden of the Sunnyside Canal building project. The Northern Pacific offered Granger all the firm's interest in the canal.

Determined to keep the canal abuilding, Granger devised a plan. He proposed to issue time checks for labor and other costs. He asked merchants to honor the time checks. He agreed, as manager of the canal company, to take the time checks at par in payment for land under the canal.

Merchants and bankers accepted the plan.

But the workmen who had to take the time checks instead of cash were rebellious.

10

Threats were muttered to dynamite Granger's headquarters at Zillah. Granger took precautions. Secretly and at night, he and a few trusted workers toted the company's explosives several miles into the hills and buried them.

The men continued to grumble. They organized a committee and appointed a leader to call on Granger with an ultimatum: Pay must be in money instead of time checks.

While the crowd of workers milled in the background, the spokesman strode toward headquarters. Granger stood at the head of the stairs and waited. Near the foot of the steps, the man stumbled and a revolver flew from his pocket. The pearl handle of the weapon shattered on a rock. Embarrassed, the man picked himself up and started up the steps.

Granger called out, "John, you've dropped your gun."

The spokesman clapped his hand to his empty pocket. He looked around and saw the broken weapon. Scooping up the gun, he beat a hurried retreat.

The dissatisfaction of the men was a minor difficulty. The worsening financial condition of the nation plus financial dealings by Schultze stopped the project a year and a half after Granger started the time check system.

Schultze had organized in Tacoma a holding company, called Yakima Investment Company. He began in 1893 a career of high finance by issuing bonds in large amounts to secure a loan of several hundred thousand dollars from California banks, ostensibly to continue construction of the canal and to finance the company's other existing and proposed projects.

Schultze's investment company defaulted payment of the first interest on its loans. On Dec. 10, 1894, the California Safe Deposit & Trust Company began suit

in Federal Court to foreclose.

The trust company asked Judge C. H. Hanford to place the firm under a receivership. George Donald, Yakima banker, to represent stockholders, and Judge Joseph S. Allen of Spokane, selected by the court, were named as two of the receivers. The third was Schultze, representing the irrigation company.

Appointment of the receivers by Judge Hanford cracked a fissure in the financial castle Schultze had been building. Reports were circulated that Northern Pacific had begun an investigation into his manipulations and had asked his resignation as head of the railway's land department.

Receivers were appointed Jan. 2, 1895. On April 12, Schultze shot himself to death in his luxurious Tacoma home. His act revealed he had squandered about \$650,000 of Northern Pacific and irrigation company funds in high living, lavish entertaining and various other ways.

Granger was at the house. He had come to Tacoma to confer with Schultze but hadn't yet seen his host.

Granger related later, "I was called to the telephone in my room and recognized the voice of Schultze's Japanese servant. Schultze lived alone in a richly furnished home. He was married, but he and his wife had separated. The Japanese was much excited. He asked me to come at once and said his master was 'sick'.

"I asked where Schultze was. In the bedroom, he replied. Can I see him, I asked. Yes, yes, you see him, the servant said. Well, what is the matter with him, I insisted. He's dead the man exclaimed.

Irrigation - 13

"I followed the Japanese into Schultzes' sleeping room and found him upon his bed, shot through the right temple, evidently with a revolver which was still partly clasped in his right hand."

After Schultze's death, Donald and Allen continued as receivers. A few years later, other creditors asked discharge of one of the receivers as an economy measure. Donald retired in Jan. 1898 leaving Allen to conduct the affairs of the investment company pending sale by a master in chancery.

A little over a year later a foreclosure decree was entered. On March 5, 1900, Wellington M. Clark, master in chancery, sold the canal and other property involved to J. Dalzell Brown for \$335,000. The foreclosure order had placed the amount of the indebtedness at \$700,000 not including receivers' certificates.

Two months passed. On May 4, 1900, Brown and his wife, at San Francisco, deeded the property to the Washington Irrigation Company, a corporation with headquarters in Seattle. Incorporators were R. H. Denny, D. P. Robinson and O. F. Paxton. The price mentioned in the deed was \$1,060,000.

The receiver's sale wiped out Granger's last financial stake in the canal enterprise. The Washington Irrigation Company kept Granger as manager. Under his direction, the canal lengthened to a point near Prosser. The big ditch was then about 100 miles long.

Washington Irrigation Company early in 1900 placed a bond issue of \$500,000 and proceeded at once with an aggressive campaign of settlement and development.

The lands were advertised extensively throughout the East and a steady tide of immigration set in. Best lands under the project were sold at prices ranging from

Irrigation - 14

\$30 to \$60 an acre, including a perpetual water right. Terms of payment were five equal annual installments.

Many settlers, after making the first payment, were able to complete deferred payments on the land and at the same time make a living for themselves and families from the crops produced.

During these years, the development was principally that of the so-called "company lands," lands sold by the irrigation company or lands having a water right purchased from the irrigation company.

Many thousands of acres of land had passed to settlers under the homestead laws and upon these lands there was little development. The irrigation company was reluctant to supply water on a rental basis although this had been done to some extent, the charge being from \$2 to \$2.50 a year an acre.

When the company refused to rent water for new lands and insisted owners purchase a water right, paying \$30 an acre, many homesteaders simply allowed their land to lie undeveloped.

An organization comprising a large number of those land owners had been formed to force the irrigation company through the courts to furnish water to homestead lands at actual cost of carriage.

Homesteaders were advised by one of their attorneys that they could undoubtedly force the irrigation company to deliver water at the annual charge of not more than 25 cents an acre.

This was one of the conditions which forced the irrigation company finally to sell its holdings to the federal government. There were other troubles. The six years

Irrigation - 15

between the taking over of the Sunnyside enterprise by the Washington Irrigation Company until the sale to the government were uneasy years.

At the heart of the trouble was the problem of irrigationists trying to claim more water from the rivers than nature allowed to flow there, particularly in the summer months.

When the early irrigationists dug their small ditches, plenty of water was flowing down streambeds. The bit siphoned off to water a few acres was scarcely missed from the river. However, as more and bigger ditches were built, the water supply was not sufficient for all the demands. Rivalry for the little water left was intense.

Every new user of water was regarded as a menace. Especially were larger enterprises such as the Sunnyside Canal looked upon with hostility.

There were other facets to the problem. Many Sunnyside settlers were using too much water. They had no experience in irrigation farming. Granger and his engineers calculated a second foot of water for each quarter section of land was enough. But the water was there. The settlers used it. It was found that some farmers used each year enough water to cover their land 10 feet deep.

E. F. Blaine was in Yakima Valley as a representative of the Denny interests in the irrigation company. He remained here to develop a ranch north of Granger.

He saw one possible remedy for the water problem. Whoever could wrestle control of the lakes at the head of Yakima River and at certain points in Naches watershed could store surplus water by building dams and reservoirs. The rivers could be turned off and on like faucets so water would always be available.

At this time, a somewhat similar problem was troubling another irrigation group near Yakima, the people who wanted to channel the Tieton River into farmlands.

15

Some years earlier Prof. B. F. Barge and others watched spring flood water churning down Cowiche Creek and decided the water could be caught in a reservoir to be used for summer irrigation. Construction began Nov. 4, 1896 on the reservoir located slightly north and east of the present town of Tieton.

The move attracted the attention of George S. Rankin and George Weikel. They knew about the Sterling survey along Tieton River. Rankin and Weikel decided the enterprise would succeed if more water could be obtained. The outlook was good; they began acquiring interest in the Barge dam and land holdings.

In 1902 a survey was made of practically what is now the Tieton Project. Efforts were begun to raise \$1,500,000 to finance the enterprise. Then the Tieton proposal stumbled against the common Valley problem, a lack of enough water that hadn't been appropriated.

People who were troubled most by the problem, Sunnyside Canal builders and the Tieton enterprisers, thought they had a solution when a bill was presented to the State Legislature in 1903 to allow corporations or individuals the right to store flood waters and to use stream beds as channels to flow water to diversion points.

Opposition flared in North Yakima. Hundreds of small irrigationists who had claims on river water were afraid big corporations were trying to drink down all the water. The opposition prevailed; the measure lost at Olympia that session.

Tieton enterprisers turned to the federal government and asked the Reclamation Service to build Tieton Project.

But the Sunnyside Canal people had one more shaft left to their bow.

Blaine tried to stem the flood of opposition to the reservoir bill. He declared, often, that the proposal to store water behind mountain dams was for the benefit of

16

Irrigation - 17

all the Valley and the logical step to prevent water shortages at mid-summer.

Fear of private control was stronger than argument, no matter how sincere and logical.

Blaine and his associates persisted. They went to the Legislature again in 1905 to ask the state to grant them control of lakes at the head of Yakima River and at certain points in the Naches watershed.

Blaine and Granger camped at Olympia. Their job was to push the bill through the house. Northern Pacific Railway was to win enactment in the Senate. The strategy was only half successful, Blaine and Granger saw the reservoir bill safely through the House but the Senate battle was lost.

Blaine related later that a bitter political fight was raging in the Senate over freight rates. He asserted that Yakima Valley enemies of the lake storage plan offered to stand with the railway in the rates fight if it would drop the water measure. The railway, he declared, sacrificed its irrigation allies and the lakes storage bill was junked.

With their last hope gone of escaping their dilemma, officers of the Washington Irrigation Company called a council of water. They decided to follow the path of Tieton enterprises, to ask the Bureau of Reclamation to take over Sunnyside Canal.

Before the irrigation company could sell its canal to the government, there was one more conflict to be fought.

The summer of 1905 was especially dry. Farmers in Sunnyside district were pleading for more water. At Lake Cle Elum a dam had been hastily thrown across the head of the lake by Lomard & Horsley, a firm developing lands below Union Gap.

The dam had been built to lay the foundation for a claim on the surplus water at the lake. Lombard & Horsley weren't then using the water.

Blaine and Granger feared the dam for two reasons: It was holding back water Sunnyside settlers desperately needed; it could complicate water rights and interfere with proposed sale of Sunnyside Canal to the government.

Blaine discussed water shortage with F. H. Newell, chief engineer for the reclamation service who happened to be visiting at North Yakima. "We've got to have water," Blaine declared.

"Well," said Newell conversationally, "there's a considerable supply of water in Lake Cle Elum that no one is using." He added, jokingly, "Why don't you get that?"

The chance remark set Blaine to thinking. A conference was called hastily that night among Blaine, Granger, E. F. Benson of Prosser, Falls Land & Irrigation Company and Ira Englehart, attorney for the Washington Irrigation Company.

The four men decided that Lombard & Horsley had no legal right to build the crib dam and the structure should be blown up. Granger selected Ross K. Tiffany, one of his engineers, to do the job. Benson called his brother, Harry, at Roslyn, to arrange for a box of dynamite and caps. A telephone operator listened in and tipped off Frank Marble, engineer for Lombard & Horsley.

Years later Tiffany told about the exploit.

"I did not question the judgment of the men who arrived at the decision. I did realize the urgent need of Lower Valley farmers for water to mature their crops.

"I took Joe Driscoll, a construction foreman of many years on the Sunnyside Canal, and went to Cle Elum and hired a team and a hack and four transient laborers.

Irrigation - 19

We drove to Roslyn where Harry Benson, storekeeper for the Northwest Improvement Company, delivered to us a box of dynamite with caps and fuses.

"Unfortunately for the plan's success, Marble, engineer for Lombard & Horsley, who had built the crib dam for them, learned of the plan and took steps to block it.

"The first shot, however, was placed without interference. About one-half box of dynamite was sunk at the upper face of the dam near the center. A few seconds later we witnessed, from the shelter of nearby trees, what appeared to be a wonderful geyser with boulders and fragments of rocks thrown high into the air.

"I walked onto the dam to observe results and to locate the next shot. The first blast had made a gap at least 20 feet wide in the dam, through which the water was rushing at the rate of perhaps 1,500 to 2,000 cubic feet a second.

"The noise of the escaping water shut out other sounds and I did not realize the approach of the enemy until a hand like a ham fell on my shoulder and Deputy Sheriff Haight of Cle Elum invited me to come along with him."

Tiffany pleaded with Haight and told the deputy of the desperate plight of the farmers. The officer refused to allow Tiffany to place the second shot.

The engineer, Driscoll and the four workmen were taken to town where Tiffany and Driscoll were charged with malicious trespassing. Tiffany persuaded the sheriff to release the four workmen.

The raid was successful. It gave an additional two weeks' supply of water to the Lower Valley and saved most of the crops.

But Tiffany and Driscoll had to stand trial in Ellensburg. They were found guilty, but time dragged on and by the time they were sentenced they were given

19

light fines which Washington Irrigation Company paid.

The Lombard & Horsley side had one answer for its critics: In the final agreement over allotment of Yakima Valley Irrigation water rights the government recognized that Lombard & Horsley had a valid claim to Lake Cle Elum water.

The important year of 1905 was fast closing. Uncle Sam now was definitely interested in Yakima Valley as a site for irrigation projects and his hand was in his pocket, reaching for the millions needed to pay the cost.

One barrier stood in the way, the tangled maze of water right claims. Before the government would put up millions to finance Yakima River reclamation projects, something had to be done to assure adequate water rights for the government-built projects.

Yakima Commercial Club, convinced of the need for federal projects, took on the job of obtaining water rights for the government. By persuasion and by purchase, the club finally assured enough water rights to satisfy government engineers.

Blaine was asked to journey to Washington, D. C., to confer with Newell over the proposed sale of the Sunnyside canal to the government. Blaine had hardly seated himself in Newell's office when Newell went straight to the main question.

"I suppose," he said, "you haven't come all this distance without some definite proposition to offer."

Blaine agreed, "I have one proposition and only one to make."

"What is that?" asked Newell. "How much will you take for the canal?"

"A quarter of a million dollars," Blaine said. He added, "The company must retain water rights for its unsold land and for the lands sold but not paid for."

On those general terms, the deal was made.

The government stepped onto the middle of the stage. A board of reclamation engineers recommended on Oct. 16, 1905, that the Tieton project be built and a million dollars be set aside for it. Another board recommended that another million be set aside to buy the Washington Irrigation Company's property and to complete the Sunnyside Irrigation Project.

Announcement was made on March 26, 1906, that the recommendations had been approved with \$1 million set aside for the Tieton Project and \$750,000 for the Sunnyside project. On July 6, 1906, a board of engineers began making contracts.

The era of government construction had begun.

The scrape of shovels scooping into gravel, the whack of axes biting wood, the shouted commands of teamsters driving belabored teams of heavy draft horses echoed from one end of Yakima Valley to the other during the years that followed.

Sunnyside Canal was being completed; Tieton Project was being built; Bumping Lake Dam was underway; crews worked at Lake Keechelus; Lake Kachess and Lake Cle Elum; surveyors hiked across McAllister Meadows that became Lake Rimrock.

It was a busy time.

But to tell the story now requires taking each project in its turn while remembering that much of the building was simultaneous. The starting place was the completion of Sunnyside Project.

When Uncle Sam bought Sunnyside Canal, that big water artery of Yakima Valley flowed from the Sunnyside Dam just below Union Gap for 50 meandering miles to a point opposite Prosser.

By 1904, private enterprise had spent about \$1,700,000 on the project. Nearly 700 miles of lateral canals had been dug. The main canal was 62 feet wide at the top and 30 feet wide at the bottom. It was eight feet deep. The big ditch could carry 800 second feet of water.

Sunnyside Canal was planned to command 64,000 acres of land. About half that acreage was under cultivation in 1904.

On Oct. 4, 1906, government crews began rebuilding the diversion dam head-works of Sunnyside Canal, the Sunnyside Dam. Granger, then working for the bureau of reclamation, was still in charge.

Headgates for the canal were built in 1891 and 1892. A wing dam extending part way out into the river was constructed in 1893 and used until 1900 when the great demand upon the river flow by irrigators higher up the water course made necessary a dam across the full width of the river.

Building of the new diversion dam was the first actual construction work done by the government after its purchase of the system from Washington Irrigation Company.

The building began in trouble. Early in October, 1906, a construction camp was established on the south side of the Yakima River near the dam site. Work went well until early November when the flood of 1906 poured down Yakima River water course. Behind the high water was heavy snow in the mountains followed by a chinook wind that melted the snow and sent it funneling into the rivers.

The river rose rapidly. The muddy flood water overflowed the dam site, climbed into the construction camp and isolated the workers on an island washed by the fast flowing water. Rescue parties bounced boats across the churning river and carried

Irrigation - 23

the marooned workers back to the mainland. The flood stopped work at the dam site for two weeks.

Despite handicaps, the workmen persisted. Through that winter and the next summer the new dam slowly emerged. From 30 to 100 men at a time were busy on the structure. Everything was completed by Oct. 15, 1907.

Government-hired laborers were busy about the same time scooping out the main canal to make it bigger and longer, better able to carry the river of water that was to be diverted into the farmlands of the Lower Valley. Work on the canal had to be done during cold weather when the irrigation water was off.

Work gangs went ahead. Cold was endured, frozen ground broken apart and the main canal dug deeper.

From this work and reconstruction, the Sunnyside Project spread out rapidly. Other components were built - Snipes Mountain Siphon, Mabton Siphon and Prosser Unit.

Today the Sunnyside Division comprises 103,570 acres of land.

Unlike the government engineers and workmen who came to the Sunnyside Project in 1906 to find a dam and canal already in use, the builders of the Tieton Project began that same year with little more than a plan.

The plan was to dam the Tieton River somewhere in its narrow canyon and then siphon the pooled water around and through the high, rocky ridge to bring the stream to the highlands near Cowiche.

Work went well until mid-Nov. 1906. By then only a mile and a half of the wagon road still remained to be built.

The great flood of 1906 was underway. The miles of road gouged tortuously through the wilderness, the bridges arching the stream, were struck by the full savagery of the wild water. Bridges splintered and became flotsam in the muddy river. Portions of the road were churned into impassable bogs or washed into the river.

Yet, work went on. First task after the flood subsided was to repair the lower end of the road. While it was being worked on, the only way to bring supplies into the canyon was over a round-about route by way of Cowiche, and then by pack train into the canyon.

The road was completed in Jan. 1907, in time to play an important part in the building of the Tieton project. Over its 20 miles from Naches to the headworks, more than 10,000 tons of freight were hauled to construction camps.

High water continued through that spring and early summer. Not until July, 1908, did work begin on the diversion dam and headworks. A force of 10 men did the first work, beginning at the dam site on July 30, 1908. A construction camp was established in August. Workmen built a temporary diversion dam in the main channel to swing the river away from the permanent dam site.

Building the diversion dam was hard work, little more. Boring of the canals was something else; it was hard work plus an intriguing engineering problem and almost constant frustration and worry.

The original plan had been to build 11 tunnels. As construction went on, six of the tunnels were deleted from the plans and only five were built. Of a total canal length of 12 miles, some two miles are in tunnels. Steeple Tunnels were driven by hand and the others - Trail Creek, Columnar, Tieton and North Fork Tunnels - were machine driven.

Irrigation - 25

Most troublesome of the tunnels to drive was Trail Creek Tunnel; the story of its building gives understanding of the similar problems that were encountered in boring the other tunnels.

Work began with one shift on July 26, 1907, Labor was hard to hire and only one shift had been recruited and was at work. A week later, three crews were working and an electric air drill was grinding into the rock.

The rock was hard, the drills were inadequate and the men were disgruntled. The combination was bad and progress was slow. Toward the end of November, the entire force was fired. The new crew made no better showing than the old one. On Feb. 29, 1908, the workmen walked off the job and the project was delayed until March 10.

In mid-April, the crews quit again. More men were hired and again the work went on. Then, on July 9, the tunnel men quit in force with about 1,000 feet to be driven. Despite these vexatious delays, the tunnel was broken through on Dec. 7, 1908.

Digging the main canal, the artery that was to carry water from the headworks through the tunnels to the farmlands near Cowiche and Tieton, was just like digging a ditch on a big scale.

Virtually all the canal is on a steep side hill through ground that ranges from loose earth and slide rock to the hardest basalt. Because of the steep hill and the nature of the project, the canal had to be dug almost entirely by pick and dynamite and shovel.

Work began on April 22, 1907, on a strip 500 feet long connecting Tieton and North Fork Tunnels. About 30 men were on the job. Through April and May, five

Irrigation - 26

construction camps blossomed in the canyon and by the first of June, 250 men were hacking away at the canal. In June a sixth camp was erected and by the end of the month work was going on at 11 locations.

Teams were set to the task in early July, an unfortunate time for hiring horses and wheel equipment because the hay crop in the Valley was being cut and few horses were for hire. Work slowed. A labor shortage developed; men were moving to the harvest fields in the Valley. Common labor was being paid \$2.50 on the canal project, a good wage for the time, yet men were quitting faster than replacements could be hired.

As fall came on, workmen moved away from the farms back to the canal project. Wages were cut to \$2.25 and then by Dec. 1 to \$2 a day. After a winter shutdown, work resumed March 8, 1909. The last camp was shut down on May 25, 1909.

With the headworks, the tunnels and the main canal built, the next job was to set out the system for distributing the water among the farmlands. Surveys were made in 1908. The three parts of the system, the Naches branch, the Cowiche-Yakima branch and the Wide Hollow branch, were built in 1909, 1910 and 1911 respectively.

The Naches branch comprising 10,000 acres was completed down to the placing of measuring boxes on each 40-acre tract and ready for the water on May 15, 1909. During 1910 the Cowiche-Yakima branch comprising 10,000 acres was completed. A public notice opening these two branches for 1911 was issued.

Wide Hollow branch was completed during 1911 and opened by a similar notice on Jan. 24, 1912.

26

Irrigation - 27

Before irrigationists brought change, the water cycle in the Yakima Valley was simple: Flood in the spring and drought in the summer.

Irrigation could not succeed under such a cycle. Engineers set to work to rearrange nature. Before they finished, six storage dams had been built. The reservoirs pooled flood water of spring to be let into the rivers in the summer to feed the irrigation canals--like the turning off and on of a faucet.

The storage dams are Bumping Lake, completed in 1910; Clear Creek, 1914; Cle Elum, 1933; Kachess, 1912; Keechelus, 1917; and Tieton or Rimrock, 1925.

Accounts of the building of Bumping Lake Dam and Lake Kachess Dam give some insight into the difficulties and problems met and overcome when man wrested from nature the control of river flow in Yakima Valley.

Bumping Lake is at the headwaters of Bumping River, a tributary of Naches River. Some 63 miles northwest of Yakima, the lake lies 3,400 feet above sea level in mountainous forest. Half a century ago, the lake was virtually only reachable by 47 miles of rough wagon road from the railroad end at Naches.

Contractors were reluctant to try to build a \$360,000 dam in the middle of a virtual wilderness. When the government called for bids on Nov. 15, 1906, there were no replies. Again bids were called on July 1, 1907, but no offers were made. On Nov. 19, 1908, the government decided to hire its own crews, build the dam itself.

Actual construction at the dam began on May 17, 1909. Work proceeded through summer and early fall. Then on Nov. 1, heavy mountain snows melted under the warmth of a Chinook and the lake began to rise rapidly.

Night and day, the entire force worked on the coffer dam which threatened to be topped by the rising water. There had been so much rain that everything was sopping wet. The only material available for strengthening the endangered dam was so wet and soggy teams could not be used on it. Laborers pushed wheelbarrow loads across the top of the wet, slippery dam to build up the crest.

Despite the desperate work, the outlook was grim. Slight waves lapped the top of the dam; a head of 13 feet of water beat against the coffer dam; the material being thrown onto the dam was so wet and soggy, water oozed through on the lower side of the dam; the lake was rising an inch an hour.

But the men worked on. In time, the battle was won and shortly after the lake crest began to drop.

In a few days, the camp was closed down for the winter. When it came time to resume work the following spring, workmen had difficulty getting back on the job.

Thirty-two miles from Naches, where Bumping River flows into Naches River, snow was so deep the work party again was slowed. For several miles men shoveled from three to four feet of snow off the road before wagons could get through.

After passing American River, only 11 miles from the lake, not more than two miles a day could be made because of the deep snow. Seven miles from the lake, the road became impassable for teams and they were sent back. The equipment was stored in tents and the men hiked into the lake, arriving there on April 12. That season saw the dam completed.

With Bumping Lake and Lake Kachess Reservoirs completed in 1912 and 1914, respectively, Uncle Sam's builders went on to erect Clear Creek, Keechelus, Tieton and Cle Elum Dams.

In 1936, work began on the Roza Division which includes the diversion dam in the Yakima River Canyon. The diversion dam was completed in 1939 and the division was completed in 1950 at a cost of a million dollars.

Today, with nearly a century of development behind it, reclamation in Yakima Valley reaches 426,572 acres of irrigable land. Besides the private, small canals which continue in business under the water rights won before 1905, the Reclamation service has built Tieton, Sunnyside, Roza, Kittitas Divisions of the Yakima Reclamation Project and is working on the Kennewick Division. The Wapato Indian Project constructed by the Indian Service comprises some 120,000 acres.

The Tieton Division became, in 1947, the first irrigation project in the United States to pay out. The water users took over the project from the government that year after repaying Uncle Sam for the money he had invested to build the project.

The irrigation empire that Walter Granger came to find that summer day in 1889 is here.
