A COLLECTION OF ANECDOTES LARGELY BUT NOT EXCLUSIVELY MEDICALLY ORIENTED



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Mesa Historical & Archaeological Society is pleased to publish this volume about Arizona when a century ended and the days we enjoy were far in the future. The pen of our beloved doctor townsman scribed it for remembering.

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PART THREE

The Roosevelt Dam



BUILDING CAMP

THE PROBLEM OF WATER IN ARIZONA has always been a grave one both for domestic use and for agriculture. While there are tremendous drainage areas in the higher altitudes where winter snows and spring rains bring seasonal floods, there is a dearth of rainfall in the valleys where the agricultural lands are. So, in order to hold the torrential floods and make the water available on the desert lands of rich soil in the valleys, it was necessary to impound the excess water in dams and, through a series of canals, bring it to the fertile fields.

As far back as 1869 a group of white settlers built a canal from the Salt River, and carried water to their adjacent farms in the valley. Their brush and log dams, however, would wash out with the first floods. In 1889, the Phoenix Chamber of Commerce passed a resolution favoring extended irrigation in the valley. This led to an expedition to explore the Verde and Salt Rivers and check up on their drainage areas. The report of this expedition was forwarded to the U. S. Senate Committee on Irrigation and Arid Lands and led to a visit of the Committee to Phoenix.

In 1896, a meeting of the National Irrigation Congress was held in Phoenix, and from this meeting resulted the National Reclamation Act. Finally, in 1900, a committee of 25 was appointed by the National Irrigation Congress to investigate irrigation. This Committee visited Phoenix and brought its findings to the attention of President McKinley without immediate results. However, the Secretary of the Interior on a guarantee of \$1,500 expenses sent an engineer, Arthur P. Davis, to Phoenix. Mr. Davis with the local committee went over the ground and reported favorably on the feasibility of a dam in a box canyon a half mile below the junction of the Salt and Tonto Rivers.

In 1901 the Arizona Legislature authorized a special tax to raise \$30,000 and the Federal Government appropriated \$10,000 for preliminary surveys. Following President McKinley's assassination Vice-President Theodore Roosevelt became President and irrigation began to move rapidly. On June 17, 1902, Roosevelt signed the Reclamation Act. In February 1903 the Salt River Valley Water Users' Association was organized and, in October of that year, the Roosevelt Dam was authorized with an initial appropriation of \$100,000 for surveying and much preliminary work.

Roosevelt Dam was the first project to be approved under the Act, and the first one to repay the Government in full.

Besides the \$30,000 tax levy and the \$10,000 Federal money, Phoenix and Mesa had sold bonds to the amount of \$71,000 to be applied to road construction from Mesa to the dam site. The road then started in order to bring men and material from the railroad has been maintained ever since and has become the now famous Apache Trail. There was no possible wagon approach between the Tonto basin and the valley. A mail route carrying mail between Globe and Prescott once a week had been established, carrying mail in a buckboard where possible, otherwise on horseback. There was also a wagon track from Livingston to Pleasant Valley over the Sierra Ancha mountains.

In the preliminary work besides the roads it was necessary to provide lumber. Hence, the road was improved up into the Sierra Ancha mountains, and a saw mill developed in the pine timber. It was necessary to develop power so an intake dam was constructed some 40 miles up the Salt River and a power canal was excavated to drop the water over the bluff at the dam site



Roosevelt, Arizona, during construction days; dam built in canyon at the right.

with a turbine hydro-electric generator set up in a cave below. The cost of cement delivered over the 60-mile road would have been prohibitive and, as surveys showed excellent material within five miles, a cement mill was undertaken.

At the time of our arrival these projects were mostly on paper on the drafting tables at Livingston. My first job was to assist the acting superintendent Charles Olberg⁷ in laying out the camp at the dam site, and we started on this immediately. On a

⁷Charles Olberg was a man of much importance in the Roosevelt Dam Project and became well-known all over Arizona. Later a town in Arizona was named after him.

low bluff on the south side of the Salt our survey gang staked out the location for a large corral, an engineers' mess tent on a higher level, a field hospital tent, sleeping tents for engineers and guests and numerous tent sites for working men, a blacksmith shop, carpenter shop, etc.

As the work progressed, we laid out a town site adjoining on the east, the lots to be leased to individuals on permit for business purposes at no rental but under restriction as to conduct, especially in regard to liquor which was prohibited within a three-mile limit over the entire project. We also located an excellent spring and brought water in by gravity to a large storage tank supplying the entire camp and town, and later the contractor's camp to be established on a high bluff across the river on the Tonto side. Of the early tents set up were two in a cottonwood grove across the Salt and on the Tonto where Mr. Olberg had them placed — one for himself and one for us.

Cement Mill erected because delivery cost over a 60-mile road was prohibitive.



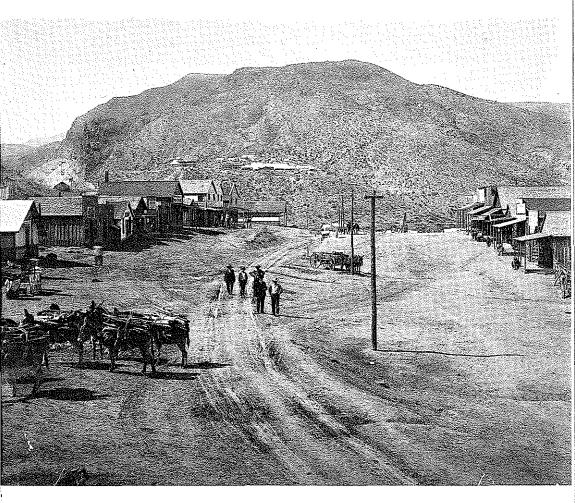
These tents were canvas stretched on board frames with board floors, mostly of dark canvas with an additional fly. When furnished they were very comfortable. Later on a number of houses were erected on a hilltop south of the camp, also an office building and a septic tank to dispose of sewage. In the beginning, we used latrines throughout the camp and town with a sanitary squad to lime them daily.

Eventually, Roosevelt became quite a well-organized camp with electric lights, a large ice house, running water and sewage disposal and a number of business houses. At its prime it had a post office with daily mail and a population approaching 5,000 persons. As the dam walls started up and the water began to back up, all the business houses had to move to higher ground and a location half a mile above the office building was chosen. It was first called New Town and later Roosevelt.

One of the early general stores owned by a man named Frazier is still at New Town, 50 years later. He now has cabins and a fleet of fishing boats besides the store. The offices and houses on the hill are now occupied by the Forest Service and various employees at the power house below the dam.

With later construction of storage dams at Horse Mesa, Mormon Flat and Stewart Mountain, Roosevelt has become almost entirely a power dam, supplying together with the other dams lower down the river power to the Salt River Valley Water Users' Association (S.R.V.W.U.A.) which distributes it throughout the Salt River Valley and to the mines at Superior and Miami.

The Contractor's camp on the bluff north of the dam was for many years conducted as a tourist hotel run by the Southern Pacific Railroad, routing their coast-bound passengers in busses over the Apache Trail from Globe to the Valley at an extra fare of \$6.00.



Presenting Main Street in downtown Roosevelt Camp; note telegraph poles and burro-back transportation.

COUGHING UP THE DEATH "FLEEM"

URING THE FIRST FEW WEEKS on the Roosevelt project we continued to live with the Harrises. With Mr. Olberg I made daily trips to the camp site at the dam driving my horses mostly. The road crossed the Salt River several times. At one crossing in particular there was a good-sized pond and usually there were many ducks on it. The country was also alive with quail and wild turkeys and as Charlie and I both liked to shoot, we managed to keep the camp well supplied with game. At the end of the first month, however, our two tents in Cottonwood Canyon were ready, Mrs. Olberg had arrived, the hospital tent had been set up, a hundred or more workmen were on the job. We moved to Roosevelt.

As appropriations from Washington began to come in, the various preliminary projects developed rapidly and so did my practice since medical service to workmen was provided without charge to them. Road camps had been established at various points on the Apache Trail from Government Wells on the desert to Fish Creek, 17 miles west of Roosevelt, also at the Intake dam site and at the sawmill in the Sierra Anchas. I had set up a first aid station in each of these camps and made each station once a week, a round trip of about 200 miles horseback. As the Reclamation Service had horses in each camp, I was able to get a change every 30 miles or so and save my own mounts.

One of my early experiences at Roosevelt happened on a

Saturday evening when I was riding up the river looking for ducks. A man from the sawmill caught up with me and said the wife of the boss was dying. We were just opposite Sally May canyon where a horseback trail went up the mountain to the sawmill camp, a distance of about 12 miles instead of 35 by road.

I gave the man my gun, and told him to go back to the hospital and get my saddle bags and follow me up the trail. I was wearing a sweater vest and in one of the pockets happened to have two vials of placebo⁸ tablets, one pink and one white. By the time I was well up the mountain it started to snow on top of the eight to ten inches already on the ground, and by the time I reached the sawmill it was quite dark.

The boss's tent was a big one about 16 by 20 feet. There were four double beds in it and a red hot box stove in one corner. The sawmill was run on a contract basis by a group of Arkansawians and there must have been 15 or 20 of them in the tent, more people than air. On one of the beds lay the boss's wife, apparently unconscious.

On cursory examination, however, she had a normal pulse and apparently normal temperature. There was no swelling anywhere and, as far as I could tell without a stethoscope, she was perfectly normal except for her apparent unconsciousness and breathing. The breathing was quite remarkable and rhythmic. From apparent cessation entirely, respiration would very gradually increase in both volume and rate till a climax was reached when she would give a little gurgle and "cough up the death phlegm" ((Pronounced "fleem" by one of the women who explained it to me).

I watched her through several of these cycles and noted no more than a normal change of pulse during them before concluding that it was a case of pure hysteria. I stage-whispered to the husband and a woman or two beside the bed that although his wife was apparently near the end I had a very powerful remedy with me which might either bring her back to life or on

⁸Placebo: A medicine, especially an inactive one, given merely to satisfy the patient.

the other hand might end it quickly. Personally, I would not take the responsibility. It was up to them to decide.

After considerable discussion beside the bed, they decided that she was going to die anyway and they would take the chance. So we got a couple of spoons and dissolved one of the placebo tablets in hot water and one in cold water. At the apex of the next cycle, and just as the "death fleem" was coming up and her mouth was open, I slipped the hot pink one well back in her throat and as she started into a spasm followed it with the cold white one. The spasms and shudders gradually subsided and she passed into a natural sleep.

After a while we went down to the cook tent and had some Arkansaw food and coffee. We sat around till midnight when the patient woke up from her sleep and said she had had a terrible dream where she was crossing a dark river and there were many winged creatures flying about!

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GREENBACK AND THE LION HUNTER

ANOTHER INTERESTING TRIP during that first winter at Roosevelt was made to see a patient at Young with a cattleman named Ed Gilliland who had ridden down from there to get me.

Young was a small center with a post office and general store situated in a high mountain valley about 40 miles north of the sawmill but only 60 miles from Roosevelt by trail. We started up Tonto Creek late in the afternoon and at Cline took off up Greenback canyon trail to get up on the mountain. Along after dark it had started to rain and we came to a one-room cabin beside the trail. We were invited in by Florence Packard who was a lion hunter.

In the cabin besides Florence were half a dozen blood-hounds. Florence must have been in his late sixties for his long hair and full beard were gray. The chief furnishings were a small wooden table and a couple of three-legged stools. In the corner was a small fireplace with a coffee pot and a pot of beans on the coals. Several rifles and a saddle were in another corner. A board bunk against one wall was provided with lion skins for both mattress and covers.

Florence, for all his fierce appearance and surroundings, was a genial host; and when he learned where we were heading he said the trail up would be bad in the dark and rain and it would be snowing on top, so that we had better stay with him overnight. Ed thanked him but said Mrs. Young was powerful sick and he thought we could make the Steward ranch on top without trouble and maybe get all the way through to Young.

We did, however, accept a cup of coffee and a plate of beans. There was only one cup so we took turns pouring the cup full of water into the coffee pot which was full of grounds and after it came to a boil poured it back into the cup to drink. Not much for coffee, but it was hot. There were two spoons so we could both eat beans at the same time directly out of the bean pot. After an hour or so when thoroughly warm and dry, we started out. As Florence had warned us, the trail was slippery and rough and finally covered with snow.

At the top, the snow was well over the horses knees but Ed seemed to know the way and followed it through timber till finally about midnight we descended a little slope. Ed got off his horse and after digging in the snow a bit found a wire gate which he managed to get open enough to get through. A few hundred feet inside we came to a good-sized log cabin.

Ed found some paper and wood and got a fire started in the fireplace. As soon as we were warmed up a bit, he unsaddled the horses and brought them in to a sort of wood shed on the side of

the house. He also found and lit a coal oil lantern and in rummaging around finally found a little coffee left in a can and a couple of cans of beans. With melted snow we made coffee and after defrosting the beans had our midnight supper. It was very cold outside, probably close to zero. There was plenty of wood in the shed, however, so we sat on the floor and talked until daylight.

Ed told me this was the Jack Steward cattle ranch but in the winter the cattle and cowboys were down on the lower ranges. He also told me it was about the south end of the district which was the scene of the Tewksbury-Graham cattle and sheep war which was described in Zane Grey's "To the Last Man." About the war itself he would not say much, either because he didn't know or because he wouldn't talk on the subject. The main trouble was but a few years back and individuals were still feuding.

At daybreak we saddled up and rode the ten miles down a gradual grade to Young where we found a good breakfast. Mrs. Young at that time was in her seventies and had been bed-ridden for several months. She was greatly emaciated and having severe hemorrhages from a cancer. There was not much to be done except to give her what ease I could with morphine of which, fortunately, I had a goodly supply and, fortunately too for her, she did not have much longer to live.

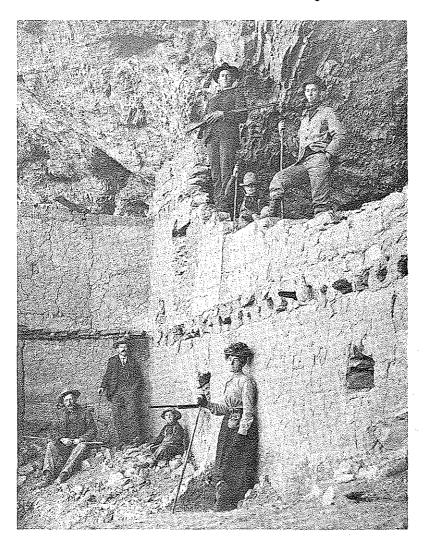
Word of a doctor visiting a patient in these remote regions seems to spread rapidly and, as usual during my day there, I saw several other patients. Also had a request to visit another bedridden woman, a Mrs. Holder, some 10 or 12 miles east. So after spending the night at the Youngs, I started out next morning with the Holder boy.

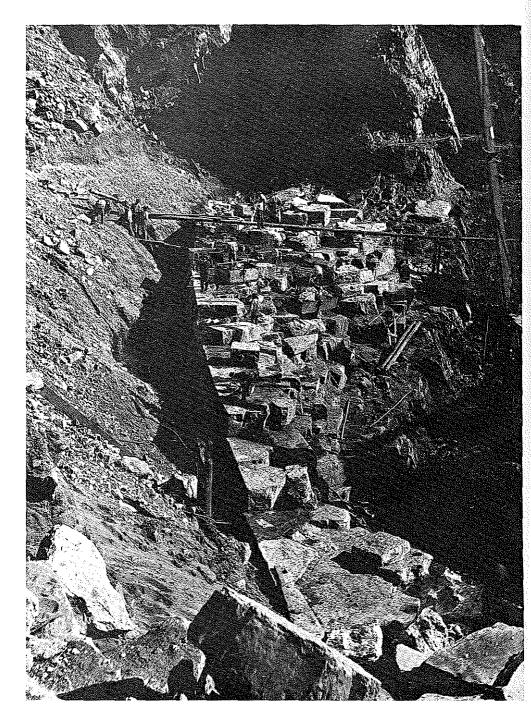
The Holders were goat herders. While the house was not in the center of a goat corral like the Sullivan ranch, there was the same general atmosphere and the same kind of goaty food. Mrs. Holder was also well along in the advanced stages of cancer with nothing to do except relieve pain while she lived.

The Holders, like all the goat herders I met, were poor but honest. During the following years the boys used to come into Roosevelt once a month or so and bring me a young kid. I had thought after my experience with the Sullivan goats that I would never again eat goat meat or drink goat milk. However, we found these kids to be excellent meat, and quite in demand by our friends at Roosevelt.

On my return I got on the road to the sawmill and made both that camp, the Intake camp and Livingston before reaching Roosevelt.

Tonto Cliff Dwellings in 1904 finds Roosevelt 'tourists' checking an inside room.





LOUIS C. HILL

ALONG IN FEBRUARY Mr. Louis C. Hill — Chief Engineer on the project appointed by the Reclamation Service to carry out the plans and specifications prepared by Mr. Arthur P. Davis — arrived at Livingston to take active charge of the work. Mr. Hill was a graduate of the Engineering College at the University of Michigan and had been teaching mathematics at the Colorado School of Mines at Denver for a few years.

He was a powerful man both physically and mentally, enabling him to take on the arduous duties involved in a project with so many facets and keeping in his retentive mind the many details associated with it. Frequently in our visitations to the various camps our routes would coincide, and we would often drive together when there was a road or ride together when there was not. On one of these occasions while we were getting acquainted, Mr. Hill asked me where I was born.

I told him Marquette, Michigan. "Is that so," said he, "Did you know a Grace Palmer at Marquette?" "Yes indeed," I replied "Grace is my sister." "Did you also know or hear your sister speak of a Gertrude Rose?" "Oh, yes, I was home the winter Miss Rose came to Marquette to teach school and lived with Grace. Did you know them?" "Well, I never met your

The stone quarry nearby dam construction, for specifications called for masonry.

sister but Gertrude has often spoken of her. Gertrude is my wife."

On another trip I mentioned to Mr. Hill that I understood there had been some fifty or more applications from within and without the Territory for the position as surgeon on the project and asked him how come I had been selected.

"Well," he said, "It was at a meeting in Phoenix with Mr. Newell, Chief Hydrographer of the U. S. Geological Survey and Mr. Davis, the Chief Engineer when the applications were discussed. A month before that the qualifications of the various applicants and their references had been investigated and yours seemed to be the only one where no political or other influences was suggested. Your references were entirely on medical qualifications and were satisfactory. You were also in the Territory in active practice and, on these bases, you were offered the appointment."

Mrs. Hill and their two children did not come to Roosevelt until late summer when the houses on the hill were constructed, so on his overnight stops at the dam site camp Mr. Hill usually occupied a tent next to the hospital at the Engineers' camp. Here after supper in the mess tent he would discuss the various engineering problems with the engineers and outline specific problems for them to take up.

On one of our trips together we drove down the river to Mesquite Flat, the first road camp about seven miles below the dam site, which was as far as we could go in a buckboard. There we got saddle horses and started down river as Mr. Hill wanted to look over the entire course all the way to the valley. Fortunately he had provided plenty of sandwiches for us and grain for the horses, for it took us four days to reach the wash leading up to Harphams camp at Government Wells.

The water in the river was low, and except in the box canyons, we could usually find good going on one side or the other. In one of the boxes extending from what is now the Horse Mesa Dam to just above the Mormon Flat Dam, a distance of some eight miles, the walls were so precipitous we had to keep in the bed of the river. In this stretch we encountered a number of pockets of quicksand which the leading horse would get into before it was spotted. After the first one we rode with a rope around the waist of the leader just in case. While a couple of times we came close to losing a horse we managed to get them out when they went down, though in one pit the horse was down to his withers and we only got him out with a rope on the horn of his saddle, dragging him out on his side with the other horse.

We finally made the wash however, and followed it up to the road camp. From Government Wells the road across the desert was passable, so we took a team and buckboard into Mesa.

At Mesa we met a Dr. A. J. Chandler who had managed to acquire an area 6 miles square, some 9 to 16 miles south of Mesa. This area, comprising a township, had all been homesteaded by individuals and somehow Dr. Chandler had acquired the title to all except the school section. A Senate investigating committee some years later tried to show that the doctor had hired the homesteaders to locate the quarter section for him, but no flaw in the title could be proved. At any rate, at the time we met him, Dr. Chandler with Detroit capital was sinking a series of wells to provide irrigation water.

He had built a canal from Granite Reef to a bluff west of Mesa and there dropped the water over the bluff through a hydroelectric turbine to provide power to pump the wells at Chandler. The Tempe Canal just below the bluff had the oldest water right on the south side of the river. Although the brush and dirt dam at Granite Reef washed out once or twice a year—and the doctor had agreed to keep the dam up and drop his water into the Tempe Canal below the power house—the Tempe people were suspicious of him and got out an injunction against his dropping any water in their canal. When he turned the water through the turbine however, the bank of the Tempe Canal gave way and the water went into the canal in spite of the injunction. This case was in the Arizona courts for more than 25 years until the Water Users' Association had taken over all canals in the

valley and then the controversy died a natural death.

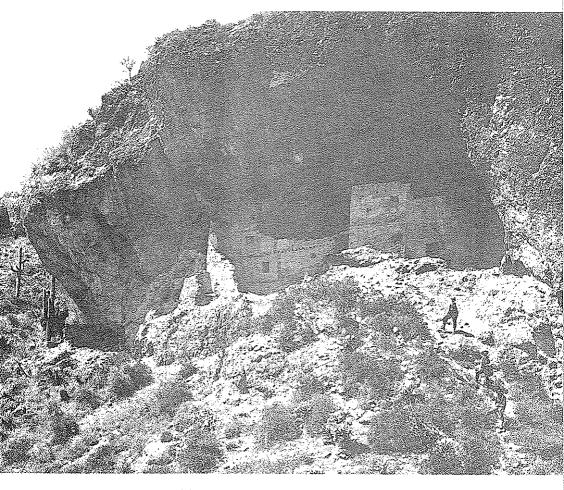
When we met the doctor at the hotel that evening he invited us to drive out to Chandler where the first well was about to go into operation. On the way out in the doctor's buckboard with a scraggly team of desert horses we got to talking about Detroit where the doctor came from and Ann Arbor where Mr. Hill came from and I asked the doctor if he was an M.D.

"No, I was a veterinarian," he replied, "and the title of doctor followed me out here." Then it dawned on me that this might have been the resplendant individual I had seen order a streetcar horse shot some 10 odd years before when I was a deck hand. I asked him if by any chance he had been the city veterinarian in Detroit back in 1890. "Why yes, I was for a period of some five years." Then I recalled to him the incident on Brush Street and how his style and the manner in which he ordered the horse to be shot had impressed me. He said he remembered it very well because it was the only time he had had to have one of the streetcar horses disposed of.

When I remarked on the difference between his then handsome equipage and the dusty buckboard he was driving now, he said, "Well, the buckboard and desert horses go better with this kind of country and, anyway, it will only be a few years until we have paved roads and automobiles. This is a much bigger job than I had in Detroit, and when in a few years you will see the six miles square of irrigated farmland and a modern town in the center, you will see why."

The town of Chandler is now a famous winter resort with the San Marcos Hotel and two 18-hole golf courses. The main line of the Southern Pacific also has a station there. This was the first of many pleasant associations I had with Dr. Chandler during the years to come. Like most pioneers he had his ups and downs, but his vision of water and the fertile Salt River Valley remained with him up to his death at the age of ninety.

Mr. Hill had set up his first office at the engineers' headquarters in Livingston. He had a desk in the open drafting room,



Tonto Cliff Dwellings, near Roosevelt, in 1904.

and anyone who wanted to talk with him simply walked up to the desk. One of his many problems was talking with ranchers along the two rivers whose property would be inundated when the dam backed up the water. The surveys showed the lake would have a total length of 25 miles, 15 on the Salt and 10 on the Tonto. These ranchers would crowd in on him all talking at once.

One day I had been in Phoenix and in company with Dr. Craig had gone into the Connolly bar on Adams Street for a

glass of beer. While sitting there in a booth, Mr. Connolly came in and said he had a patient in the back room. We went out with him and found a young man on the floor coughing up a considerable amount of blood. We got him into bed at the Adams Hotel and when I saw him the next day he was quite cheerful and said his name was Finley McGuire, that he had been private secretary to Mr. Charles Schwab at Gary, Indiana, when he developed tuberculosis and Mr. Schwab had sent him to Arizona.

I told him I thought I could get him a job at Roosevelt. The road was quite passable by that time so he went to the dam with me. I explained Mr. Hill's situation and said I thought he really needed a secretary. When he looked Mr. Hill's office arrangements over, Finley said that it would be easy to fix so we arranged for a carpenter to build a rail fence around Mr. Hill's desk during the night. The fence had a gate in it and a small table outside the gate.

When Mr. Hill came in the next morning and came to the gate Finley, whom he had not met stopped him and said, "Mr. Hill is not in yet, please give your name and sit down. You will be first as there are no other appointments ahead of you." "Well! I'm Mr. Hill and who in —— are you." "Oh, Mr. Hill," said Finley rising with his hand out. "I'm Finley McGuire, your new secretary that Dr. Palmer brought up from Phoenix." "I didn't know I needed a secretary but it might be a good idea. I'll try you out for a day or two and see how it works."

It worked, and Mr. Hill had no further trouble dealing with more than one visitor at a time for no one got past the gate without the secretary's permission, and usually his name and business were provided before getting to Mr. Hill. Later Mr. Hill told me I had a lot of nerve hiring him a secretary without his permission but after he learned Finley's proficiency, he was duly appreciative.

A STRENUOUS SEVENTY-TWO HOURS

ALTHOUGH MY APPOINTMENT AS SURGEON to the Roosevelt Project contemplated my principal activities would be taking care of employees, I was also permitted to have private patients. As the nearest available physician to the remote areas more or less adjacent to the project, I was frequently called on to treat patients in the back country. One of these calls that first winter involved the most strenuous seventy-two hours of my horseback practice.

Joe Zacharie, a cattleman living just under the Mogollon Rim 75 miles north of Roosevelt, came in one evening. He had ridden into Payson some 30 miles to get a doctor who had located there. The doctor, however, had left the country so Joe rode on an additional 60 miles to Roosevelt. He said his sister had been in to see this doctor at Payson a month before because of a rupture and that the doctor had put some kind of a contraption in her vagina. A few days ago when her next period started she had terrible cramps and had become much swollen and they thought she was going to die because the contraption would not permit any blood to come out.

Joe had left his horse at Cline some 12 miles up Tonto Creek and I told him I would meet him there next morning. From Cline we went up into Greenback canyon but up a trail on the north side instead of past the lion hunter's cabin on the south side. On top we came to a small clearing and house about

35 miles from Roosevelt. The owner, Jake Lauffer, was plowing a field with two mules. After a brief conversation Jake unharnessed the mules and threw my saddle on one of them and I left Raccadoni in his barn.

About 10 miles further we came to another cow ranch and here Joe got a fresh mount but I stayed with Jake's mule, though, because of the mule's narrow withers and my single cinch saddle, I was frequently riding on his neck going down hill into the washes and on his hind end climbing out. However, we had not crossed any deep canyons until after we left this last ranch. Then for the next 20 miles or so to Potato Butte the drainage was east and west and the canyons were from 50 to 200 feet deep and we had to cross one after the other so that by the time we got on the open ground I was well nigh all in and so was the mule.

On a high mesa opposite the Butte we met a cowman named Paul Sell. I didn't know him but Joe did. Paul was riding a large black horse and said he was but a few miles from his ranch, so he generously loaned me his horse and rode the mule home. Joe, of course, was anxious about his sister and had been forcing the pace all day long but for the next ten miles to the ranch *be* had a hard time keeping up. The last 2 miles were down a steep side hill into the canyon of Willow Creek. The black horse with high stepping front feet and sliding hind feet almost pranced down the hill, while Joe's tired horse had to stumble down.

The Zacharies were a Danish cattle family and had a log cabin, white-washed inside and out. We found the sister, Dalgmar, sitting up in bed singing Danish songs to her own accompaniment on a guitar. She was much better of her cramps and swelling and when I fished out an occlusive type of pessary, she was all right. It was dark by that time and Mrs. Zacharie had a roast chicken with other good things for supper.

In the morning we started back, stopping at the Sell Ranch to return Paul's horse and get Jake's mule, and again that grinding ride over one ridge after another and up and down to cross the canyons. Along in the afternoon it had started to snow which made it worse. We finally picked up Joe's horse and reached Lauffer's Ranch about five in the afternoon. By that time it had really started to snow and a considerable blizzard was making.

During the day for all of our covering plenty of territory we had seen no one except Paul Sell and the man where Joe had changed horses, but within the next two or three hours after we had holed in at Jake's no less than five other men came in for shelter. They must have known the country well and that the door of Jake's cabin was always open for shelter. Two of them were forest rangers, one was a deputy sheriff from Globe with a cattle thief whom he had under arrest, and one was a prospector with his two burros. So with Joe and me the Lauffers had seven visitors.

There were beans and salt pork with biscuits, honey and coffee, however, and Mrs. Lauffer fed us all including herself and Jake and two boys both under ten years. They also had plenty of blankets and wood in the house, and though we all lined up on the floor to sleep, it was not so bad. Jake had been shot through the back during the Tewksbury-Graham war a few years before but except for some tingling in his lower limbs was not having much trouble with it at the time. As a patient, Jake will come in later.

The blizzard lasted through the night and in the morning, although the wind had subsided, it was still snowing with about 12 inches of snow on the ground. After breakfast I told Joe to go on home as it was only 8 or 10 miles to Greenback and Raccadoni would take me home. When we came out of the timber on the rim above Greenback, neither Raccadoni nor I could locate the trail down the canyon. After a vain search I picked out a point about opposite the lower ridge which divided Greenback into two canyons and taking my lead rope got off and started to slide down the side of the canyon leading my horse for I wanted to be sure to have him at the bottom. The bottom of the canyon was at least 1,500 feet below the rim and as we slid and scrambled down we got out of the big timber and into manzanita and

later mesquite. The dry snow on the top gradually changed to wet snow then slush and then mud, while the snowfall itself changed into sleet and then rain. At last we made the bottom and picked up the north trail leading to the Tonto.

It was about five o'clock when I reached the corral and there I found a call from Livingston where the paymaster had fallen off a haystack and broken his arm. I took a buckboard and team with a driver for this trip. After setting the arm and putting it in a splint, I finally reached home about 9:00 p.m.

But there was no rest for the weary doctor. I found a man there waiting with an emergency call to Payson with instructions to pick up a horse at Judge Howells at the foot of Tonto Hill for the last 20 mile stretch into Payson. So, with a fresh horse I started off again. At Judge Howells I found the horse and turned mine into the corral. The ride up the grade into Payson went from 3,000 to 5,500 feet in elevation and the last of it up a ridge with a 15 to 20 percent grade.

It was just daylight when I reached the Postmaster's house and found a ten year old girl with a double pneumonia. We did not have antibiotics in those days and had to do what we could with stimulants, expectorants and antiphlogistines or other types of chest poultices.

After breakfast, when the child was more comfortable and I had seen a few other patients who came to the house, a cowman named Bud Armer came over and took me home with him for a rest. Mrs. Armer put me in bed with a two-year-old daughter who in later years when I met her at a dance in Phoenix told me that I had been the first man who had ever slept with her. They woke me up about 5 o'clock and I went back to see my patient. She was markedly improved. After leaving medicines and instruction, I was ready to leave.

When I had gone out with Bud earlier I had noticed a good looking pole buggy in the barn and asked Bud if he could dig up a team and take me down to Judge Howells where I had left my horse. Sure enough when I came out there was Bud with several cowboys at the gate. They had the buggy out on the road and a

team with harness on.

Bud and I got into the buggy before they hooked the team up. They finally managed this with a cowboy on each side with short ropes on the horses. After some plunging the team got started on a run. A quarter mile down the road through town we had to make a right angle turn to get on our road. As the cowboys swung the team around with the buggy on two wheels we started up a hill about a mile long. The cowboys cast off their ropes and we were on our own on a dead run up the hill.

The team, two range horses never broken to drive or mind the reins, did keep to the road, and by the time they reached the top of the grade had simmered down to a trot. During the 10 miles to the top of Tonto Hill they became pretty well broken in. The road down Tonto Hill at that time was down a long gravelly ridge with a very steep grade especially at the bottom where it dropped into a sand wash. There was no breeching on the harness and the light brakes on the buggy would not hold much so all the horses had to hold back with were their collars.

While we started down on a walk and Bud held their heads up with the reins, we were not more than half way down when the team broke into a run. When we hit the sand wash we should have tipped over but Bud held the horses straight while I hung on to the buggy. At the foot of the hill was a road house with a barn. In order to stop Bud ran the pole of the buggy right into the side of the barn.

After we got the horses quieted down and tied to the hitching rack, we went into the bar and had a much needed bottle of Red Top, a favorite brand of whiskey in Arizona bars at that time. We also found some food there and after an hour's rest Bud drove me on to Judge Howells with a well-broken team of driving horses.

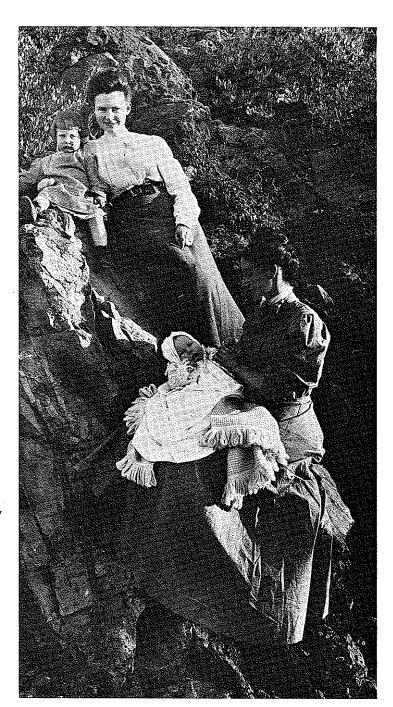
It was a nice moonlight night and I jogged down Tonto Creek meeting a freight outfit on the road about daylight. I had coffee and biscuits with them and got home for breakfast.

BETTY COMES TO TOWN

ALONG LATE IN FEBRUARY Mrs. Palmer was showing the imminency of childbirth. A Miss Florence Parker from Detroit had come out with her sister Mrs. Harris and for the six weeks we had been living in our tent house Miss Parker had been living with us and helping Mame with her "tent" work. For two weeks I had been staying close to camp at Roosevelt and on March 14th Betty, the first child to be born at Roosevelt, came to town.

Miss Parker was not a graduate nurse, but she had all the characteristics of the finest type of practical nurse and everything in our household went along fine. A couple of weeks later my mother — who had come out from Michigan to see how her boys were — came along and stayed with us till late in April when she with Mame and the baby went back to their homes in Michigan and Ohio.

Mother's trip she described as exciting although she had grown up in the pioneer days of northern Michigan. My brother, who was still at the ranch on Oak Creek, met her at Prescott and took her down to Camp Verde and the ranch so that she could see the country we had been writing home about. After a week he started over the mountain with her, following the road or trail we had taken through Pine, Payson and down Tonto Creek. Louis looked the Roosevelt camp over but decided he didn't want any of it as he had decided to go to Washington State



At Roosevelt: Mrs. Palmer, Betty top of picture; Jessie Palmer with Harriet; late 1905.

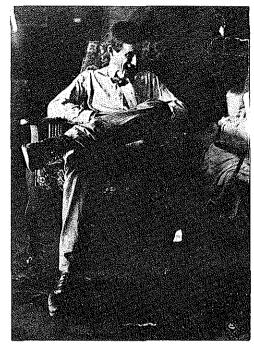
to raise wheat. So he left the team and wagon and returned to Oak Creek with the mail stage.

Mother was well up in her sixties at that time but still an active walker. During her visit with us, Mr. Dwight B. Heard of Phoenix came up to the dam site with his father-in-law Mr. A. C. Bartlett of Hibbert, Spencer and Bartlett in Chicago. Together with other sightseeing we took them up to the Tonto Cliff dwellings some five miles above Roosevelt. Mr. Olberg and I had discovered the cliff dwellings when we were riding around looking for a suitable water supply for the camp, and on Sundays we had been going up there with a small group of laboring men from the camp, excavating the floor and the graves in a nearby burying ground.

From the bottom of the canyon it is quite a hard steep climb up to the dwellings, and mother was very gleeful because she had to help Mr. Bartlett over some rough spots and up the hill. One of the graves we excavated was evidently a mother and child who were both in one pit wrapped in a burlap kind of cloth and with two pottery bowls, one large and one small. The bones were very fragile but Mr. Bartlett carefully wrapped these two in canvas together with the pots to take to the Smithsonian Institute.⁹

When mother and Mame were ready to start east we drove into Globe where they took the train. Mame went to her parents in Lima, Ohio, where she stayed until September. Mother returned to Marquette, Michigan. During the summer I lived at the hospital and by fall our house on the hill was finished and furnished.

Interior scene of Palmer house on hill, at right side of dam.



Dr. Ralph Palmer at ease in house-on-the-hill at Roosevelt; that's Harriet at right — 1906.



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TYPHOID FEVER AGAIN

WORK WENT ON AS USUAL until along in July several cases of typhoid fever developed. They were all in the engineers' camps and, although never definitely proved, the suspicion was that it came from raw milk supplied by a man up on Tonto Creek where there had been a case of typhoid the year before. Mr. Olberg and I were among the victims. Before coming down myself, however, I had shut off the milk supply to the mess hall and with my cow and two others started a new dairy with Charley Hill who had a small pasture up the Salt River. There were no further typhoid cases in camp.

When I took to bed, Dr. Richard D. Kennedy, a physician with the Old Dominion Mine Hospital at Globe, came out to look after me and my work. He gave the typhoid patients the same antipyretic treatment I had inaugurated. This was to put the patient in a canvas tarp with several inches of water in it and a cake of ice at the head and foot. Then four to six men would hold the sides and ends up and swish the cold water around by rolling the patient in the canvas. It was a very effective treatment from a fever standpoint but as my 105 degree temperature began to respond I sure wanted to beg off. Anyway, there is an end to all things and all the typhoid cases recovered.

Early in the summer we had established a rest camp near the sawmill in the Sierra Ancha mountains with a Chinese cook to take care of the office men needing a mountain air rest during the hot weather. In late August after I was convalescent, Finley McGuire came down to the hospital and, as he had become somewhat run down, I recommended a vacation at the rest camp. Dr. Kennedy said that he would stick around a couple of more weeks and I should go, too. So we had Raccadoni and another of my horses hooked up and started out.

Arriving at Livingston camp we learned that word had just come in that a man named Shute some 8 or 10 miles up the Salt had been murdered. He had been working at the camp and with other employees had been paid that day. With Mr. Hill and some others I drove up to the Shute place and found the body with throat cut and numerous stab wounds in the chest and abdomen. He must have put up quite a fight for the room was pretty well torn up and blood was spattered everywhere.

Outside of the house on some moist ground were some shoe imprints, one of them very large. Mr. Hill sent back to camp for a couple of Apache Indians who were working there and word was also sent to the sheriff at Globe. The Indians came, studied the imprints carefully and then started on the trail. Just how they could follow a trail on hard ground is anybody's guess, but two days later — after trailing for some 40 miles — they picked up two Mexicans west of Globe. While one Indian kept on the trail, the other went to the sheriff's office in Globe and led the officers to the two Mexicans. The shoes of one of them measured up to the imprints found at Shute's, and one had Shute's uncashed Government check on him. Eventually they both confessed and were sent to the State prison at Yuma.

The following morning Finley and I went on up to the rest camp in the Sierra Anchas. There we found Mrs. Harris and her sister and three or four engineers. The invigorating mountain air soon braced us up and I was feeling so good I borrowed a single buggy from the foreman, and put Raccadoni in the shafts. The road bed up to the summit was decomposed granite and almost like a race track. Raccadoni lengthened his usual racking gait into a long pace and with head high went proudly and rapid-

ly up the road only breaking once or twice.

We came back down the slight grade, and I drove him up the side road to the veranda of the rest camp where Mrs. Harris was sitting and asked her if she would like a buggy ride. She said she would if I would wait a few moments while she went in and got a light wrap.

I would, but Raccadoni wouldn't.

He started to prance and before I could control him he went off on a run through the timber and jumped over a couple of old skid logs left from the first lumbering operations. They were about three feet off the ground and while Raccadoni went over, the wheels did not. The tugs parted and I went over the dashboard head first. When I came to an hour or two later, I was in my bunk and my head had been shaved. A large gash in my scalp had been sutured neatly by Sing Lee, the Chinese cook.

The corral at the sawmill was some little distance from the camp. One morning, while we were still resting, the corral boss came up and said several horses, including my two, had either gotten out or been taken out. The sheriff from Globe came up the next day with a couple of deputies and said he thought he knew where they were, that a gang up on the mountain had a blind cache in a deep canyon and he thought they were getting ready to run a herd of horses into Mexico. At any rate they came back a few days later having recovered all our missing horses besides some twenty others which they took on down the mountain to return to their brand owners.

After our two weeks at the rest camp, Finley and I were both much improved physically. So, we hooked up and returned to our respective jobs.

SANITATION

ON RETURNING TO DUTY AFTER my experience with typhoid I gave particular attention to sanitation. Our milk problem was apparently safe for we had no further cases of typhoid after starting Charley Hill on the new dairy. He increased his herd by several additional fresh cows, arranged his milking pens to keep milk clean and while the milk was not pasteurized, the buckets were thoroughly scalded and the milk continued good.

I appointed Joe Zacharie as chief of the sanitary squad, and he did an efficient job during the latrine period. They made a complete daily inspection and report not only on the latrines but on all garbage and refuse. On the hill as the cottages were nearing completion I made a study of septic tanks and we developed one to take care of the sewage on the hill.

This was a concrete structure with a 2 by 6 by 4-foot settling tank with a trap door to remove sand or dirt if it filled up, which it never did. Then the main tank was 40 feet long by 20 feet wide with a depth of 6 feet arranged with projections from alternate sides to slow the flow and permit prolonged anaerobic decomposition. The outlet went over the bank on to an aerating rock filter. This filter was some 15 feet high with a circular base about 4 feet in diameter. An aerobic film formed on the boulders, and by the time the water came out at the bottom it was perfectly clear and odorless.

The following year I attended the annual meeting of the

State Medical Society and presented my first medical paper in Arizona. It was entitled, "Sewage Disposal in Small Communities." The paper was well enough received but my statement on the purity and odorless quality of the water was scoffed at till an army officer from Fort Whipple took the 4-ounce sample from the filter I had with me and drank it. I remember in discussing my paper he also complimented me highly on my investigation of the subject and the excellence of the tank construction I described.

Our spring and storage tank proved adequate to supply water to the entire camp and town and, later by suspending a pipe across the canyon, also supplied the contractor's camp.

In September the houses on the hill began to fill up with families of engineers and other office personnel: Mrs. Hill with a son and daughter; Mr. and Mrs. Duryea, he was in charge of cement mill construction; Mr. and Mrs. Tobelman, cement chemist; and several unmarried engineers who occupied the Bull Pen. Also, there was a dining room with Sing Lee who had come down from the rest camp, which was closed for the winter, to take charge of the kitchen. Two flunkies, to wait on table and wash dishes, were engaged. So the social life at Roosevelt got under way and became quite active in this isolated community.

While still without an assistant, I had two rather serious surgical cases that fall. One of them was a Mexican with a chronic osteomyelitis¹⁰ of the tibia¹¹ with several discharging sinuses. In my senior year at the County we had started using spinal anesthesia, mainly because the warden had issued an edict that no intern would be permitted to do a major operation without the presence of a member of the attending staff. We asked for a definition of a major operation and learned that it was any operation requiring a general anesthetic. Since we interpreted spinal anesthetic as a local we got the technique from Morton of San Francisco and began using it.

¹⁰Inflammation of the bone marrow.

¹¹ Inner bone between the knee and ankle.

As I had no anesthetist at Roosevelt, I prepared to give my Mexican patient a spinal. I didn't have a platinum needle in my outfit so used a steel spinal needle with the patient sitting on the side of the table bent over. The needle went in nicely but just as it entered the foramen, the Mexican suddenly straightened up and broke the needle off with the broken end just outside the canal. It wouldn't do to leave it there so I lay him on his face and put him under with chloroform getting Tommy, the mess hall flunky next door, to come over and continue with ether while I did a partial laminectomy sufficient to reach the needle and get it out. We finished the bone operation on the leg under ether.

The other case was a Cherokee Indian boy from Oklahoma who had a strangulated hernia when I found him in a tent at Livingston. The hernia had been strangulated for some 72 hours and, though I had but a few instruments in my bag, I was afraid to ride him over the rough road to Roosevelt. Under a local I cut down the mass and severed the constricting ring.

The strangulated loop of gut about the size of a cantaloupe was very black. For perhaps an hour we kept it covered with hot boiled dish towels till finally his circulation returned in all but a few isolated spots and I felt fairly safe in returning the damaged gut to the abdomen, leaving a rubber drain with the skin partly closed.

I took the patient back to the hospital with me and next morning he had a temperature running up to 105 degrees plus which lasted for several days. The skin of the entire abdomen and flanks became discolored and crackled to the touch with emphysema giving all the appearance of a gas bacillus infection. I figured that perhaps the colon bacilli could do the same thing, and sincerely hoped so. At any rate the wound was well drained and after several days of hot bichloride wet dressings the temperature finally subsided. No peritonitis developed and there was apparently enough inflamatory reaction locally to close the sac and cure the hernia. At least there was no recurrence during the three or four years I kept him under observation.

PROHIBITION

PROHIBITION, WHETHER LOCAL OPTION, state wide or national, always seems to bring about disturbance of one kind and another. The Roosevelt Project was no exception. A reservation was set up in Washington establishing a dry zone extending from the sawmill to Government Wells banning liquor anywhere within three miles of the work. Mr. Hill, though not a radical prohibitionist himself, made every effort to control both the sale and consumption of intoxicating liquors in the prohibited zones. For this purpose he employed a Texas Ranger named Jim Holmes.

Jim was a small, wiry, blue-eyed Dane who had seen rough days on the Texas-Mexican border, and was entirely adequate to handle the job. He was the typical two-gun man of western fiction except that when he came to Roosevelt he used 38 Colt automatics instead of the traditional Colt 45. Many mornings I would ride over to a flat across the river and throw cans up in the air for him. An ordinary tomato can he would keep in the air shooting alternately from right and left hips until there was nothing left of the can or both guns were empty. When trouble was brewing, Jim always shot first and got his man so that his reputation was quickly established and no one seemed anxious to tangle with him.

One of Jim's early shootings in connection with liquor occurred late one evening when word came to him that a Mexican bootlegger had come into Cottonwood canyon on Tonto Creek with a pack outfit and two barrels of whiskey. Holmes deputized a man named Bagsley, and they walked across the suspension bridge and up Tonto. To reach the cottonwoods they had to go 100 yards or so through a dense growth of tules (pronounced tool-ies) higher than their heads and with a trail just wide enough to walk single file. It was just getting dark when they came to the bootlegger's camp.

Several customers beat it into the brush, but one Mexican stood his ground with his hands in the air. Holmes took a gun from him and told him to come along. When they entered the tules Holmes was ahead, Bagsley next and the Mexican following. All at once the Mexican shot Bagsley, but before he could get in a second shot Holmes had drawn and got in his regulation five holes in the Mexican — one in the forehead, one in the neck, one in the chest and two in the abdomen. The slug that hit Bagsley entered the back of the right elbow and ranged down to the wrist severing nerves and tendons. He recovered from the wound but was left with a crippled right arm.

Some time after this there was trouble with the Indians on the High Line Road. This was a road under construction on the high ground from Roosevelt to Livingston and the Intake Dam. The work was being done by a group of Tonto Apaches. Another group of Apaches from the White River Agency known as White Mountain Apaches had been sent to this camp.

Although the two groups of Indians had originally been enemies, they now were getting along together when sober. However, at this particular time the saguaro buds were ripe and some of the Indians had fermented a tubfull of buds to brew a concoction known as tiswing, a drink said to be very potent. At any rate, when the bucks were good and drunk, the fight started.

The Justice of the Peace called for Holmes to go up to the Indian camp with him. As they approached, an Indian stood up beside a wagon and in the half light apparently raised a rifle. Before he could shoot however, Holmes had drawn and when I examined the body the following morning the Indian was lying

on the ground beside the wagon. There was no need to do more than determine the direction the five bullets had taken in passing through the body. They were to the fraction of an inch in the same location as the five holes in the Mexican bootlegger, so there was no question as to the author. I picked up a stick from the ground to determine direction and course of the missiles without thinking that I should have at least used a silver probe for the benefit of the Indians standing around.

A short time later the body of a white man was found in the river a half mile below the dam site. It was brought to the hospital and I did a post-mortem on the body to determine whether the man had drowned or had been killed by other means and thrown in the river. The field hospital was a tent with screened sides. The ever curious Indians would stare through the screen when anything was going on, and there were several watching that morning.

About a week later Al Sieber, the famous Apache scout who was at the camp as interpreter and in charge of Indians, came into the hospital and said, "Doc, you're in bad with the Apaches. They don't like the way you treat Indians." "I'm sorry, Al," I said, "I try to treat Indian patients the same as whites and Mexicans." "It isn't about that kind of treatment; it's about the dead Indian. When Indian gets shot white doctor pokes a stick in the holes while he lays on the ground. When white man gets killed, takes him to the hospital, lays him on a white table and cuts him all up."

"Well, you tell the Apaches, Al, that all I needed to know about the dead Indian was where the bullets went, but I needed to learn what killed the white man found in the river. Also, tell them I'm sorry but if they will bring me another dead Indian I will try to satisfy them."

As it happened, we didn't have to wait too long before the Justice of the Peace told me there was a dead Indian at the Intake camp and he would have to go there to hold an inquest. I told him all right but I wanted to get Al Sieber to go up with me and I would meet him at the camp. When Al and I reached the camp,

the J. P. and his coroner's jury were viewing the body.

The Indian was sitting on the ground against a log by the remains of a fire. The story was that he had come to the fire the night before apparently intoxicated and went to sleep sitting against the log. He was still asleep when the rest of them had gone to bed and was still there the next morning but cold and couldn't be roused.

He was still there in the afternoon when the jury viewed him. The sun had been shining all day and he was quite bloated. We had the body taken into the drafting room which was also housed in a screen-sided tent and laid out on a large sheet of white paper on one of the drafting tables. These were White Mountain Apaches, and I told Al to get a few of the head men into the tent with us. Before the post-mortem was completed, for we especially wanted the stomach contents for analysis, the Indians were completely satisfied as to the treatment dead Indians got from the white doctor.

Incidentally, there was a road house near the summit on the Globe road only about four miles from the camp. It was reported that this Indian had been up there the afternoon before. When the gastric contents proved to contain wood alcohol, Mr. Hill was able to eliminate that nuisance and source of supply.

PROHIBITION ON THE COMICAL SIDE

OT ALL OF THE INCIDENTS connected with liquor on the project had serious results; some of them were more on the humorous side. First, it is needful to know a little of the background. Besides the saloon on the summit where the Indian got his liquor, there were three other sources of supply off the reservation. One of these was a saloon 10 miles up Tonto Creek. This one owned by Tobe Cline had been there for some years as a stage station on the Globe-Payson stage line. Then as the Apache Trail was opened up Jack Fraser opened an Inn at Fish Creek, a highly respectable and much patronized Inn with good beds and good food. It also had a very good bar. Just off the three-mile limit a few miles east of Fish Creek Station, Joe Shell opened a bar.

One morning quite early Mr. Hill called me from his front porch where he had a good view of the camp below and the Salt River beyond. He handed me his binoculars and down on the river which was in flood at the time were five or six cowboys on swimming horses trying to rope something in the water. They were having quite a time, and several of them were off their horses hanging on to a mane or tail.

It seems that Tobe Cline had come up the trail during the night with two barrels of whiskey bound for his saloon on the Tonto. Because of the high water he was unable to cross the river with his buckboard, so had lashed the two barrels on to a mule with a pack saddle. In crossing the river at the ford above camp the mule had lost his footing and in going over into deep water the two barrels had gotten loose. Tobe let out a yell to the cowboys, who were saddled and about to start on the range riding, and they all plunged into the river to help Tobe save his whiskey. The barrels were too slippery to hold, however, and one of them got smashed on a rock in the box canyon. The other was finally rescued intact several miles down the river. The mule got out by himself.

An amusing incident occurred in connection with the Fish Creek Inn. A Dr. Lind had been sent out from Washington as paymaster. As he said himself, he was an A number 1 accountant and would soon have all the records up to date. He had been at camp about a week when on Saturday night several of us were having a little party at my house. We had a bottle of bourbon and one of gin on the table during our little poker game. About midnight there came a knock on the door and we hastily put the bottles and glasses under the table.

When I opened the door, Dr. Lind stood there and said he had been working on the books rather late and was out for a little fresh air when he noticed the light and came on over. Of course I invited him in and told him we were having a little poker game. Would he like to join us? He would, so we all sat down again but no one mentioned a drink until finally Dr. Lind spoke up "I noticed a couple of bottles and some glasses under the table. Am I interrupting the party?"

"Oh," Finley McGuire answered, "we have been having a drink now and then. Would you like something?" "Yes, I would," said Dr. Lind, "what have you?" "Well, we have whiskey and gin," said Finley. "Which will you have?" "I'll try the whiskey first," said the doctor and he poured himself a six ounce tumbler full. "Want a chaser?" asked Finley. "No, thank you, I'll sip it straight," and sip it he did.

While the game went on the doctor sipped his tumbler full and when gone said, "That is pretty good whiskey. How about some gin?" He filled his tumbler with the gin, and in the next

half hour when it was gone returned to the whiskey and sipped another tumbler full of that. It was then about two a.m. and we repaired to the kitchen where a cold lunch had been prepared.

During lunch we learned a little more about Dr. Lind. His father was a southern gentleman and the doctor had been practically brought up on hard liquor. He said the secret of proper drinking was to sip the liquor slowly and get the full benefit of the taste without getting intoxicated. He sure knew how. As far as we could tell, he had handled his two tumblers full of whiskey and one of gin, a total of some 18 ounces, without visible effect. At any rate his reputation as a connoisseur of liquor was established.

It had become the habit of the engineers in the camp to order what drinks they wanted for the weekends by calling up the Inn at Fish Creek and having it sent up on the Saturday afternoon stage. It seems that one Saturday the engineers in the bull pen were going to have a little party and one of them, Otis McIntyre, had called Fish Creek on the phone and ordered a case of bourbon. As Otis said later, he wasn't known at Fish Creek so told them to charge it to Dr. Lind, who was.

It just happened that on that particular Saturday afternoon Mr. Hill had decided to find out what was on the stage, and along in the afternoon he took Dr. Lind, Mr. Harris and myself with him and drove down the river to a point on the road just within the three mile limit. As the stage came along, Mr. Hill with a 30-30 in his hand, ordered the driver, Joe Phelps, to stop and get down as he wanted to search the stage. So Joe opened up and in the boot were a number of packages addressed to one or another and a case of whiskey labeled for Dr. Lind.

When the case was opened and Dr. Lind passed official judgment that the contents of the bottles were intoxicating, Mr. Hill had him break all the bottles on the rocks except two which he opined would be enough to last the doctor over the week end. It was only later when Otis explained the circumstances and paid the bill that the doctor appreciated that he had had at least two quarts of good whiskey besides all the sips he had enjoyed in passing opinion on the other bottles for his trouble.

HOSPITAL STEWARD

As THE PRELIMINARY WORK got into full swing, my practice both with the Reclamation Service employees and private cases became unduly heavy so I was greatly relieved one day to have a fellow named Bush come to the field hospital looking for a job. He had walked out from Globe and had all the appearances of a genuine tramp, and, as far as I ever found out, that had been his chief occupation following the Spanish-American war. He claimed, however, without any written support of his contention that he had served as a hospital steward with the U. S. forces in the Philippines. At any rate, I really needed some help and took him on as steward.

Shortly after we had found a pair of shoes for him and enough other clothes to make him look respectable, he entered upon his duties. He did keep the place clean and the canvas cots neatly made up. A Mexican came in one day with a toothache. In the back country tooth pulling was a part of the practice of medicine for to send an aching tooth to a dentist in Globe or Phoenix meant the loss of two or three days work for the tooth and another week to sober up. I said, "Bush, can you pull teeth?" He said, "Sure, that's the first thing we learned in de army."

The tooth was a lower left molar. The Mexican did not speak English and Bush did not savvy Espanol but he got the fellow backed up with his mouth open and, seeing a bad looking tooth on the right side, got the forceps on it and twisted it out in

spite of the Mexican's attempts at protesting, which Bush of course thought was due to the natural discomfort associated with the pulling of a tooth. When the Mexican finally quieted down enough to explain that it was the wrong tooth, I showed him how bad the pulled tooth was and if he would get back on the table, we would pull the aching one also.

In spite of his many eccentricities Bush made a good steward and was quite popular with the young engineers with whom we messed. He was also good at serving trays to our patients so that he saved Tommy, the mess flunky, many steps and so was popular in the kitchen where he often helped Tommy with the dishes.

He reached his zenith however in organizing the "Circumcision Club." This started one day when one of the young engineers came in with a balanitis with a paraphimosis, so it was necessary to split the prepuce and while at it I did a circumcision.

To amuse the patient during the operation under local anesthesia, I told him about the circumcision club I belonged to in my college days. This club used to meet Saturday afternoons in the back room at Joe Parkers. We usually had one new member each week, and the names of all present were put on slips and placed in a derby hat. The last slip drawn was to be honored by having a free circumcision unless he squealed during the procedure. If he did, he had to buy beer for the crowd. If he didn't squeal, naturally the surgeon would pinch him with forceps till he did. Of course the slip with the come-on guy's name on it had a little stickum on it and was the last one drawn.

As this type of surgery did not come under my obligation to the employees of the Reclamation Service I charged the engineer the usual minor surgeon fee of \$25.00. During his dressings by Bush in the days following, Bush and the engineer got to talking and decided to organize a circumcision club. They proposed if I would agree to do the operating and give them a cut of \$5.00 for each case they rustled, they would pick out the candidates and bring them in. As I recall, they induced some four or five of their friends to "jine" up and it looked as though the idea might grow

into a profitable side line until one day Bush went out to our latrine for his morning's morning and, while sitting on the seat, a big healthy scorpion stung him on his foreskin.

By the time he got to the hospital the prepuce was pretty well swollen and I told him it would have to be split before the circulation was cut off entirely. So to assist him in his fortitude, I caught one of the club members and told him to find any of the others available for an emergency meeting. Three of them appeared and we proceded to save Bush from death of a scorpion sting, or worse. As scorpion poison acts like an anesthetic no further local was needed.

During the year Bush acted as hospital steward he was valuable in many ways, but I was unable to instill any knowledge of medicine into him though he did learn to administer ether for anesthesia in a safe if not expert manner.

On one occasion we were up against a ruptured extrauterine pregnancy in extreme shock from hemorrhage and, although our provisions for major abdominal surgery were rather meager, Bush gave a good anesthetic and watched the normal saline solution after I got a needle in the vein. The operation itself was, of course, not too difficult for a surgeon even without a nurse or assistant, for it simply meant getting through the abdominal wall and clamping off the bleeding vessels and ending the emergency.

At any rate, the case made me realize that with the increasing population both in the camps and in the rapidly growing business district and with the contractor soon coming in, I would likely get into similar difficulty more or less frequently and I determined to get a regular assistant. I wrote to Dr. William Schroeder, a Chicago surgeon and professor of surgery at Northwestern Medical School.

Dr. Schroeder selected and sent out a third year medical student named Tim Hinchion. While Tim didn't have his M.D., it was proper at that time in Arizona to use an under-graduate medical student as far as his capabilities would go. During the three years Dr. Tim was with me he became very proficient.

Following his graduation he studied in Dublin for a year and then continued with Industrial surgery at the stockyards in Chicago with the Morris Packing Company.

During the hot weather the following summer I took my family to Los Angeles and Long Beach to stay for awhile and I commuted back and forth. Incidentally, our second daughter, Harriet, had come along the October before. I was away from the project for a week or more at a time, and during my absences Tim and Bush took good care of the hospital work.

On one of my trips to the coast I looked up Dr. Edwin H. Wylie who had been on the Cook County house staff with me and later became police surgeon in Los Angeles. During the evening in the Jonathan Club some one proposed a poker game, but as it was against the club rules a real estate man named Ellingwood suggested that we go to his office across the street on 6th and Main. There were five and sometimes six in the game which went on until after midnight when Mr. Ellingwood had some refreshments sent up.

During the intermission he took us into an adjoining office room and demonstrated an X-ray machine. This was a Rose coil (one of the very early coil X-rays) invented by a man named Rose in Los Angeles. Ellingwood was financing him and was acting as agent in selling the machine at \$250. After returning to the game where I had previously accumulated a goodly stack of chips, the pots went along no one winning very much till we came to a jack pot which woke things up.

I was under the gun and picked up three little threes and opened the pot for the size of it, probably five or six dollars. The next man passed but the third one boosted my opener by \$5. Then it passed around to Ellingwood who called and raised another \$5. The dealer passed and, after hesitating a little, I stayed in to see what the next man would do. Instead of calling or dropping out he called and raised another \$5 and Ellingwood did the same. I figured the man next to me would call on that round so I stayed along another \$10 for the percentage.

I had first draw and took two cards; the next man and Ellingwood both stood pat. I naturally checked the bet but the next man bet \$10 and Ellingwood raised it another \$10. I looked at my draw then and found I had caught the fourth three so I just called figuring the next man would make another raise. He did, a \$25 one this time. Ellingwood still confident called the \$25 and raised it \$50 more. I was afraid to risk the other man for another raise so I called and made a small raise to give Ellingwood another chance. The next man dropped out with a flush and Ellingwood with a full house fell for my come on and raised another \$50.

I took out my wallet, for it was an open game, called the \$50 and threw the wallet in the center announcing a raise of \$250 against his X-ray machine. As Ellingwood had a high full house and was in considerable he said O. K. he would call. So I had an X-ray machine to take back to camp with me.

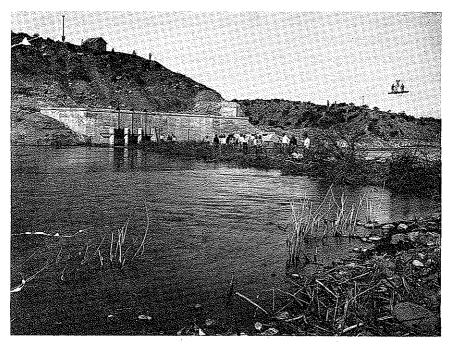
When one of the electricians got the generator set up we were able to get plates of our fractures, besides having high frequency current through vacuum glass tubes available.

THE CONTRACTOR AND THE DAM

N THE EARLY SPRING OF 1905 with the power canal completed, the cement mill well along and the Apache Trail available for freight teams, Concord stages and buckboards, the contract for the actual dam construction was awarded to John M. O'Rourke & Company who had completed the Sea Wall at Galveston, Texas, just the year before.

They set up their headquarters on a high bluff on the north side of the Salt River just below its junction with the Tonto. A suspension foot bridge across the box canyon gave access to their camp during high water. Their preliminary work was to develop a stone quarry as the plans called for a stone masonry construction for the dam. Also, to construct a coffer dam and ditch to carry river water around the dam site while excavating the river bed to bed rock and several feet into the solid rock. They strung two steel wire cables across the canyon to handle equipment and material. This work started slowly and it was fall before they had much of a crew, then they imported several hundred colored laborers from Texas.

My contract for medical services was on the basis of \$1.00 per man per month which was to include all professional service, hospitalization and material. With this added personnel to look after we needed a larger hospital so Mr. Hill had the new hospital constructed, still a canvas covered structure but with



Steel wire cables were strung across canyon to facilitate handling equipment and material.

capacity for twenty patients besides an examining and treatment room.

In return for hospitalization for my contract patients, I agreed to furnish all medicines and dressings required for Government employees. This arrangement proved very satisfactory and continued during the construction period. The advent of the colored population for labor also helped the domestic situation on the hill for a number of wives came with them and one of these at least was a very good cook and nurse as she took care of Harriet, our second child, when she came along in October of 1905.

One of our early colored patients had what seemed to be a moderately sprained ankle, and although after a period of rest the swelling was all gone and passive motion was free without crepitus or evidence of pain, he still would not put the injured

foot on the floor. When hobbling around on crutches he would not even let it touch the floor.

This had been going on for a matter of six weeks when one evening a rather wild young fellow named Slim Anderson came in for something or other and, hearing an unusually loud snoring from the hospital end, asked what was the matter with a patient who could sleep like that. I told Slim the story and said I thought the fellow was malingering but had not been able to prove it.

It was a moonlit night, and hanging in my examining room was a human skeleton. Slim looked at the skeleton and said he thought he could cure my man if I would let him.

We used California sulphur matches in those days. They came in five-gallon tins put up in bunches of about 100 matches. They apparently had some phosphorus content for they would glow in the moonlight. Slim wet a bunch and rubbed them well into the eye sockets of the skeleton, then he dressed it up in a piece of cheesecloth and hung it up on a rope over a rafter at the foot of the colored man's bed.

Slim got under the bed and made some low moans while he gently wafted the skeleton back and forth, rattling the bones a little at the same time.

It did look rather gruesome.

After a bit, our patient opened his eyes, took one look and got out of the bed and out the back door as if the devil was after him for sure and entirely forgot his crutches. Where he went that night we never found out but he came back early in the morning, still barefoot and in his hospital gown, to get his clothes. Bush, who let him in, said he would not talk but just wanted to leave the hospital and go back to work.

About the time the contractors had their first coffer dam in and a lot of heavy equipment down in the canyon, the rivers put up a rather considerable flood with water in the canyon reaching the bottom of the suspension bridge, which meant about 15 feet of water. The heavy equipment was buried in the sand and everything movable, including the coffer dam, went down the

river. The flood started late on a Saturday night, and Sunday morning with Walter Lubkin, the official photographer on the project, I went down the trail to the turbine plant which was just above water level.

We found Mr. O'Rourke down there sitting on a boulder, looking at the river. "Good morning, Mr. O'Rourke," said Walter. "What do you think of our little river now?" "Oh, that little bit of water doesn't amount to anything," he replied. "You know, we just completed the Sea Wall at Galveston where we really had some water." However, I think Mr. O'Rourke changed his mind about our river to some extent as time went on for before they got into bedrock and had the dam up above the level of the river bed, they experienced two more floods, each time losing their coffer dam and considerable equipment.

While the colored men were efficient laborers they were not so good on rock work. The contractors imported a few hundred coal miners from Pennsylvania for this job. These were mostly double jack miners and did well on open quarry work, but when it came to opening the penstock tunnel where they had to do single-jack drilling, the medical department became flooded with cases of tendosynovitis of the forearm and wrist. There 40 or 50 of these fellows laid off at a time until they finally got used to swinging a four pound hammer in one hand while holding a drill in the other. In later years, when feeling and listening to the squeak of tendosynovitis cases, I have often thought of these Italian miners and wondered if we did not have compressed airjack hammers in those days and if so, why they were not used in the tunnel.

While the contractors' camp provided the usual number of fractures and minor accidents, there was almost no sickness among the employees and only one death during my time there. This was a colored man who fell from a cliff some 40 feet and was killed.

The most serious accident happened on one of the cables when the wheel had gotten jammed. The repair man had gone up the chains and was hanging with left arm on the cable suspended

some 200 feet above the river bed. When the jam came loose the wheel ran up his forearm from his hand to his elbow and he was pinned there for some 10 minutes before a rescuer could get out and support him while the hoist man ran the wheel off his arm. While amputation was not done, the tissues and nerves were so badly crushed that the hand and forearm later atrophied and were not much use.

The first stone of the dam was laid in bedrock in September 1906, a year and a half after the contractors started to work; and the last one was fitted into place in February 1911, four and a half years later. Formal dedication and naming of the dam took place on March 18, 1911 with Theodore Roosevelt present and speaking.

After making a few remarks on his satisfaction over the large degree of success of the Reclamation Act which he had signed while president, he expressed his appreciation to those who had named the dam after him, as follows:

"I wish to congratulate all who have taken part in this extraordinary work here; and gentlemen, first of all I want to thank you for having named the dam after me. I do not know if it is of any consequence to a man whether he has a monument; I know it is of might little consequence whether he has a statue after he is dead. If there could be any monument which would appeal to any man, surely it is this. You could not have done anything which would have pleased and touched me more than to name this great dam, this great reservoir site after me, and I thank you from my heart for having done so."

Mr. Roosevelt then pressed an electric switch which opened the sluice gates, letting through a gushing, roaring torrent of water to the river bed below, so long dry. During his visit in the valley, Mr. Roosevelt with his wife Edith and daughter Alice stayed at the Evans School in Mesa as guests of Professor Harry Evans where son Archie was in school at the time. Besides his speech at the dam, the ex-president made a number of other speeches in the State.

He had a rather severe laryngitis at the time, and when he

found that spraying with cocaine and adrenalin solution relieved it to an extent where he could go on speechifying, he had me following him around with a portable compressed air tank and a nebulizer. I also had the privilege of treating an ingrown toenail for Mrs. Roosevelt, so there are compensations for practicing in out of the way places. But this is getting ahead of my story.

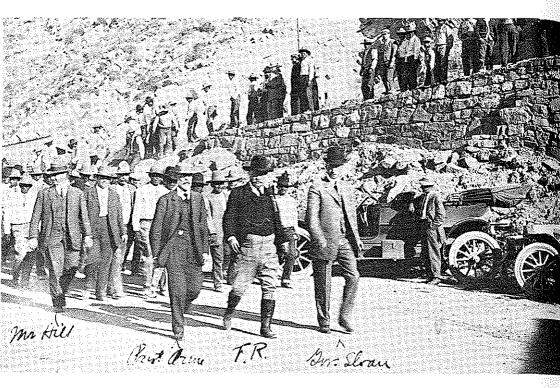
On the evening before the dedication, I got an emergency call from Fish Creek where a wreck on Fish Creek Hill had occurred. The history was that Bud Norton, driving four horses hitched to a mountain wagon with a mother and two-year-old child as passengers, came around a curve on the grade downhill. A stalled automobile was on the point and as the team went to shy past it a man under the car stuck out his head. This was too much for the horses and they broke into a wild run down the hill.

Bud told the woman to jump with the baby. She did throw the baby out and it was not seriously hurt but did not jump herself. Bud kept the horses on the road around the sharp curves for nearly half a mile. As they approached the bottom with the brakes gone and the horses still out of control, Bud knew he could not negotiate the very sharp curve to the bridge so piled the outfit up into a culvert on the cliff side of the road.

At Mesa we had recently put on a pharmacist named Batcheldor who had come out to Arizona with his mother. Mr. Batcheldor had asked me to take him along sometime on one of my emergency trips. As this was a good opportunity, I called him up and told him to put some dressings and things in a box and I would call for him in a half hour.

I was driving a Buick white streak at that time. This was a right-hand drive, transmission gear emergency brake, four cylinder car — the surrey type body designed for four passengers. The back seat, however, was detachable by loosening four bolts, leaving a flat deck to which could be lashed an extra tire or two.

With the back off we left town about five o'clock and made Fish Creek, as I recall, in about an hour and 40 minutes. After getting in the mountains the sheer cliffs are mostly on the left



Dedication of Roosevelt Dam on May 18, 1911.
Officials in picture, from left, are Louis C. Hill,
chief engineer; Prent Orme of Phoenix; Theodore
Roosevelt, and Arizona Governor Richard Sloan.
Others are John Norton, Vernon Clark. B. A. Fowler
and folks who labored to bring the dam into being.

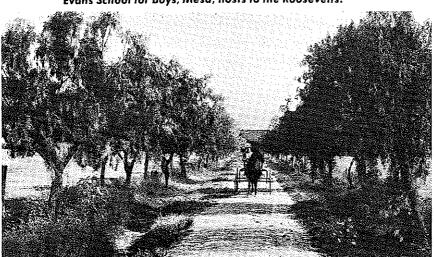
side, the side Batcheldor was on. We used acetylene gas for lights in those days, using carbide to generate it but as there was a half moon we didn't bother to get the lights working.

I suppose it was rather an eerie experience for a fellow going over the Apache Trail for the first time, but I was too busy staying on the road to think about it then. I remember that going down the mile grade of Fish Creek Hill the transmission brake under the floor boards took fire and that added to the excitement. When we got to Fish Creek Inn we found the woman with

a crushed skull and bleeding from the middle meningeal artery and Bud was unconscious.

We gave them each a good hypodermic of morphine and atropine and then proceeded to elevate and remove some of the temporal bone to check the hemorrhage in the woman. For light, Batcheldor was holding a table lamp. When George Edmonds, who was running the Inn at that time, saw him start to sway he caught the lamp before Batcheldor passed out. Anyway, it was after midnight before we got Bud strapped up and in bed. He had several broken ribs, the fifth one on the left side broken in two places and pressing at an angle to where his heart was supposed to be. This I removed some time later but that, and the woman's death the following day, are incidental to the present story.

The main thing was that I had promised my wife that I would take her and a friend to the dedication of the dam the following day, which meant an early start for there would be many automobiles on the road. It was a one-way road with only a few passing points for cars going in the opposite direction and none for cars going in the same direction unless one would stop and take *your* dust. At any rate Batcheldor had had a little sleep



Evans School for Boys, Mesa; hosts to the Roosevelts.

and we got started back after some coffee, and with our lights going about two a.m.

In Mesa I took Batcheldor home and after greasing the car and getting the back seat on — (there were no service stations or garages then and we did our own car work) — I cleaned up, called a nurse to have her ready, woke up my wife, had breakfast and got away by six o'clock. Even then the road was crowded with cars and vehicles, and it was almost noon when we reached Fish Creek and left the nurse with Bud.

We reached the dam in time to spray T. R.'s throat and get to the dedication ceremonies. That night, with almost no sleeping accommodations for such a crowd we all slept in a row on one of the hill cottage porches. The road going back was still crowded, of course, and with a prolonged stop at Fish Creek it was late evening the next day before reaching home.

About a week later the other pharmacist at the drugstore called up to ask what had happened to Batcheldor as he had not been seen after leaving with me. At his home I found a very distracted mother who said her boy had been delirious ever since I had brought him home, that he continually waved his arms and shouted, "Hang on, we're going over."

I found he also was running a temperature with follicular tonsilitis.

In a few days, however, he recovered and lived to run the Indian School Pharmacy in Phoenix for many years. He passed away several years ago but his son, I think, is still running the pharmacy.

ADVENTURE IN THE RIVER

AN ALMOST DISASTROUS ADVENTURE during that spring flood in 1905 occurred while the river was still high. A messenger had come down from up on the Tonto with word that old man Packard — (not Florence the lion hunter but an older brother, a man in his early seventies) — had been unable to pass urine for several days and was in considerable pain with his abdomen greatly distended.

Not knowing just what might be needed, I filled my saddle bags with trocar, catheters and various instruments and started for the upper crossing which was wide and fordable. The messenger had left his horse on the north side and crossed on the suspension bridge. However, he had but one horse over there and I needed him for a guide, as the Packard ranch was in a side canyon somewhere.

I did two foolish things. First, I had a valley horse saddled because he was tall and, second, I had my reins tied. About halfway across the river the horse stumbled and went down over the riffles into deep water. As I went down, I grabbed his mane and floated downstream with him. However, he had gotten one foot through the tied reins and instead of swimming he was floating on his side.

About a hundred yards downstream I touched bottom on a sand bar out in the middle of the river. The current here was not

too strong and as I got to my feet in water up to my knees I grabbed the rein and tried to get the horse upright. This was when I noticed his left front leg was in the loop. I followed him down till I was waist deep but could not release the rein so I finally let go of the horse but, fortunately, got hold of the root of a tree caught in the sand bar.

Someone on the bank had seen me and let out a yell. Several cowboys got out their ropes and tried to throw one out to me. They couldn't make it for the distance even though they had tied rocks in the end loop. Finally one of them, Billy Tripp, with two or three lengths of rope fastened around his waist waded out on the crossing and went down over the riffle.

When he came to me hanging onto the root, I was about exhausted and don't remember any more except that he grabbed me as he went by and together we went under water in the channel. When I came to an hour or so later, I was in the hospital with the water pumped out of my stomach and getting warm in hot blankets with sips of whiskey. My horse finally broke the rein strap and got out of the river by himself a half mile or so downstream.

In the afternoon when I was recovered from my bath, one of the cowboys led another horse across the river for me while I walked over the bridge with a new set of tools and managed to get to the Packard ranch. The old man was really in a bad way, for besides his urinary retention he also had an ascites from cirrhosis of the liver in an advanced stage. He required a number of tappings during the next few months before he finally passed away.

JAKE LAUFFER

DURING THE LATE SUMMER a call came in from Jake Lauffer, the man on the rim who had loaned me his mule. He had become suddenly paralyzed from his waist down. At the ranch I found the story to be true. He had been shot in the back during the Tewksbury-Graham war some years before and had been able to get around without more disturbance than tingling in one foot until the paralysis suddenly developed.

I believed the condition to be a syringomyelia which might or might not have resulted from the gun-shot wound. That, however, was beside the point. The main thing was to get him out of there. Remembering Hance's story of how he was taken to Prescott on the army mule stretcher, we cut some poles and rigged one up for Jake on his team of mules. We had some 15 or 20 miles to get him off the mountain and down Greenback Canyon to Cline where there was a road. It took us almost an entire day with several cowboys to help us make that part of the trip to where we could get him in a wagon.

In the hospital besides keeping his bladder and bowels empty, I started using high frequency stimulation with my X-ray coil and kept this treatment up for two or three years before Jake got so he could use one leg to some extent and get about on crutches.

When I left Roosevelt late in 1906 and went to Mesa as Headquarters for Roosevelt and the Granite Reef Diversion

Dam then started, I took Jake along with me. Together we opened Everybody's Drugstore as a source of supply for my contract work. Jake hobbled around on crutches from his room in the back of the store, waiting on customers and keeping the books. While one leg continued practically useless, the other one gradually improved to a point where he got around fairly well.

One day he was taking his high frequency treatment in the office which was also in the back of the store. I was then using the Tesla current with one glass vacuum tube in the rectum while the body tube was grounded and passed up and down the spine. He was on a metal table with a fuzzy blanket for warmth. All of a sudden the blanket took fire and Jake in spite of his paralysis made a quick getaway off the table, landing on his good foot.

Although we were closely associated during several years, I could never get him to talk much about the cattle and sheep war and never knew for sure whether he was a Tewksbury or a Graham sympathizer. He finally developed Flu in 1918 and died of hemolytic pneumonia.

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THE STAGE WRECK

THE CONCORD STAGES FROM MESA to the dam would stop on top of a grade above Mormon Flat where they had a telephone in a box to advise Fish Creek how many passengers they had for lunch. These stages were pulled by four horses and, as they averaged 10 miles an hour for the 60-mile trip, the horses needed frequent replacements. Therefore, there were often one

or two partly broken horses in the 15 to 20-mile runs between stations.

One day the stage had a load of traveling vaudeville artists who were to give a show at Roosevelt. At the top of the grade above Mormon Flat the driver, Joe Phelps, got down from the box to telephone Fish Creek leaving the reins in the hands of one of the show people. Something started the horses and the vaudeville artist thinking discretion was the better part of valor dropped the reins and jumped off the box, while the horses in a mad run went down the grade to where a sharp turn in the road went down to the Flat. The stage rolled over a time or two with the balance of the troupe inside. Why they were not all killed no one knows; but outside of a few broken bones only one woman was seriously injured, with a fractured skull and concussion of the brain. Joe quickly summoned help from Tortilla Station a few miles ahead and telephoned me at Roosevelt to meet them at Fish Creek.

For this drive I borrowed Mrs. Hill's buggy and team of blacks which though somewhat spirited were fast on the road. At Fish Creek it took some time to patch up the injured members of the troupe so that it was well after dark before I started back. Coming down the grade in the dark we reached the sand wash of Louie and Prauty Creek which crossed the road at that point when the horses suddenly stopped.

I could hear the roaring water ahead of them and had to wait the better part of an hour before the flash flood subsided enough to make crossing in the dark safe. These flash floods used to be fairly frequent in Arizona back when it used to rain once in a while. They result from cloudbursts at the head of a canyon or dry wash and come down with a wall of foam and debris, sometimes with a crest two or three feet high.

I remember when I first came to Arizona I had a letter from my father who wrote that he had been studying a map of the country and noticed a great many rivers and wanted to know what kind of fish were in them and if they were navigable. As a matter of fact we do have a few rivers such as the Colorado, the

Salt and the Tonto; the Verde and the Gila which always carry some water in parts of their courses, but for the most part the "rivers" on the map are dry washes and only carry water on the surface during these cloud bursts which fill them for a short time till the water runs off.

I also recall the first one of these flash floods which I encountered. It was while we were at the Halfway House. My brother and I were driving a wagon up a dry wash and had entered a narrow box canyon. The horses heard it first and commenced to rear. Louis recognized it next and we hurriedly got down and unhitched the horses. There happened to be a convenient ledge about four feet above the sand wash, and we managed to get up there with the horses before the water came down with a roar and a wall of foam, rolling debris about four feet high.

The water came up to our ankles on the ledge and although there was barely room for all four of us to stand, the horses were quiet during the half hour we were pinned there.

We later dug the wagon out of the sand and found it but little damaged.

THE TORNADO

HURRICANES AND TORNADOES are infrequent in Arizona, but we did have one twister come up through the canyon and hurtle through the camp at Roosevelt.

This one came in the evening, and took a number of the tent houses along with it. One of them occupied by a carpenter and his wife and child was on the side hill, and eye witnesses said the whole tent — boards, sides, floor and all — went up in the air spinning around for more than 50 feet, and finally came down all in one piece and right side up.

The baby in its crib was uninjured, and the wife was only badly shaken up. The carpenter, however, had caught his upper eyelid on a nail and it was completely torn off without injuring the eye ball.

This was early in the days of plastic surgery, but I did manage a sliding graft from his forehead which protected the eye ball and would open and close to some extent. There were no other serious casualties from this, our only real twister.

High winds, however, were frequent and often carried immense clouds of dust, so thick it would be impossible to travel while the dust storm was on. This type of storm usually preceded a good rain so that the air would be quickly cleared.

MY SISTER JESSIE

WE HAD INVITED MY SISTER JESSIE to come out for a visit with us to get a taste of western life before she settled down somewhere. She was just 20 and had been studying at the Art Institute in Chicago. Finley McGuire was in Chicago and when he returned in January 1906, I had him meet her and bring her out. With cowboys to ride with during the day and the engineers to dance with in the evenings it was a busy and happy winter for Jessie as the only unattached young woman at the camp.

While she was with us one of the freighters with a 16-mule team and two wagons came around the bend below the cement plant. The road here went down a sharp grade to the camp below and on the side of the canyon. In some manner the brakes failed to hold and the team got away overturning the loaded freight wagons down into the canyon. The freighter was brought into the hospital with a compound fracture of the right femur.

After a careful examination, we determined that the femoral artery was blocked as there was no circulation in the limb below the lower third of the thigh and we advised amputation before gangrene set in. This was refused, however, by both himself and his wife who had come up from the valley until after the eighth or ninth day when gangrene had started in the foot and extended up to the knee.

They then saw the hopelessness of saving the limb. Although we were quite sure it was too late with continued shock

and rising temperature, we decided to make the attempt in his bed. He was a man weighing close to 210 pounds, and with Dr. Tim giving the anesthetic we pressed Jessie into service as assistant. Her job was to keep the limb elevated at right angles to the body. This she accomplished by having the knee in a sling suspended by a rope going through a pulley fastened to a rafter. Although her first major surgical experience, she stood up to it faithfully, and while a little pale she hung on to the rope. Needless to say we lost our patient some 48 hours later.

There was also an autopsy while she was there on a man found in the river. This was also an inquest, and we were looking for the cause of his death and the possibility of alcohol in the stomach. Jessie stood by throughout as a secretary taking notes while the coroners' jury excused themselves one by one and retired to recover on the empty beds available in the hospital end.

Jessie kept a journal of her trip rather spasmodically and gave me this account of one of our excursions:

"April 13, 1906. While at the hospital this afternoon reading aloud to Van and Pitch, Teiglitz came running to the tent yelling 'Oh hurry, Doc! A woman's shot herself!' Dr. Tim hurried, likewise Pitch and yours truly, and there right between the hotel and barber shop she lay, one side of her face covered with blood. It seems this Mrs. Hunter and her husband had just got off the stage and were going into the hotel, Houston preceding her with most of the baggage, and she was carrying her husband's coat over her arm. In the coat was an old style loaded six-shooter. The gun fell from the pocket hitting the step in just such a way as to fire it and the shot passed through her nose and right eye into the brain. She died in about ten minutes but was absolutely unconscious during that time.

"Tim and I saddled up and rode up to supper and afterwards took a short ride. On our return Ralph had a call from Tortilla and upon my saying 'Yes' to his 'Do you wish to go along?' we went up to the house, prepared for an all night ride and started about 7:15, a clear starlit night, warm and fragrant. Ralph had to

lead the all too lively horses past the cement mill and some of the machinery and then we were off, reaching Frasers' at 10 p.m.

"At the top of the long Fish Creek Hill we changed horses and started again about 11 with a skittish pair of roan ponies. We went like the dickens, arriving at Tortilla about midnight. Here we found a man keeping watch over a bruised and banged-up wife and family of six. Mrs. Aiter showed us around and took care of the baby of the flock who was only three weeks old.

"It seems that the father of the six met Jenkins with his outfit coming up to Roosevelt. Jenkins had too many teams to handle and the man too few, so Jenkins gave them a light wagon and horse of his and the mother drove it with the baby and two little boys with her. As they were coming into Tortilla the harness broke and the wagon came forward against the horse scaring him into running away. He broke the cart all to bits; the mother, babe and boys were thrown into a pile of stones and cactus.

"Mr. and Mrs. Aiter helped them and got them settled in a tent for the night. Ralph examined the woman first, found she was badly shocked but not internally injured. She had a scalp wound and several big bruises. One boy had a nasty gash in his head, but the baby got the worst of it with a fractured skull.

"We were there three hours and then started back after imbibing hot coffee. It was 3 a.m., moonlight by that time and the most glorious night I ever saw or was out in. About 4:30 the east grew paler and grayer and I stopped to pick some beautiful flowers I saw by the road, immense fragrant white blossoms with pink stems and calyx and white stamens. At five o'clock coming down Fish Creek hill, the east grew pink, the farther hills were a lovely atmospherical blue, the next purple and the foreground grayish-green. The creek wound through this harmony like a silver thread.

"At Fish Creek we woke Jack and took an eye-opener, had breakfast at 6:30, and started home with the blacks again getting back at 9 a.m. That's what I call a night, but it was indescribably lovely, every bit of it."

SLIM ANDERSON THE LINE RIDER

ONE OF THE CHARACTERS AT THE DAM was the same Slim Anderson who rigged up the skeleton to make my colored patient get up and walk.

Slim had a job as "line rider." His work was to ride the transmission line which was then under construction between the dam and Mesa once a week and report to his chief engineer, Alton Sprague, on progress. On his trips Slim rode a big sorrel horse and led a pack animal with his bed and food, for the line was well off the road and away from the regular camps.

Slim was about to marry Miss Lena Cline, daughter of Tobe Cline up on Tonto. Some of their friends had quarters below the canal on the flat east of the business section at Roosevelt and one Sunday Lena had come down from Cline and, with several friends including Slim, was having a visit. Slim had a 22 caliber Colt target pistol which he was demonstrating when the gun went off. Lena grabbed her behind and exlaimed, "Slim! You've shot me!"

Slim got on his sorrel, and went to the hospital where Dr. Tim told him I was at home up on the hill. He then came up the road to the house where my saddled horse was tied at the rack. Slim was wild with excitement and fear and called "Follow me" as he went off the bluff back of the mess hall on a dead run.

Although the grade there must have been 45 per cent his sorrel went over the eight foot canal, and slid on down to the

flat below. I did not attempt to follow him on any such ride and jump but went round by the trail in the next canyon which only took a minute or two longer but at least I got there in one piece.

Dr. Tim was there and had Lena in bed. We found a 22 bullet wound in the fleshy part of her right buttock. When we found the wound was not serious and Slim had quieted down, Old Tobe who had been sent for came in and said, "Well, Slim, not a shot-gun wedding but a pistol will do, so I opine you'll have to marry the girl."

He did, and it went all right for a while. But when Slim's job was over, he took his sorrel horse and rode out of camp. Some years later, Lena married a cattleman named Ross Daley and lived in Mesa for many years until she died in 1950 from a bronchogenic carcinoma.

19

THE END OF HORSEBACK DAYS

ON SEPTEMBER 20th, 1906 when the first stone was cemented into bedrock and actual construction well under way and progressing rapidly, much of the preliminary work had been completed and the diversion dam at Granite Reef on the Salt River some 12 miles northeast of Mesa had been authorized. The diversion dam was to be an overflow apron dam to divert water let down from Roosevelt, and from the Verde River which entered the Salt just above the dam into the two main canals—one on the north and one on the south side of the river.

The Arizona Canal on the north through laterals irrigated

all the farm lands adjacent to Phoenix, and as far west as Glendale and Peoria. The Consolidated supplied all the southside lands around Mesa, Gilbert, Chandler and Tempe.

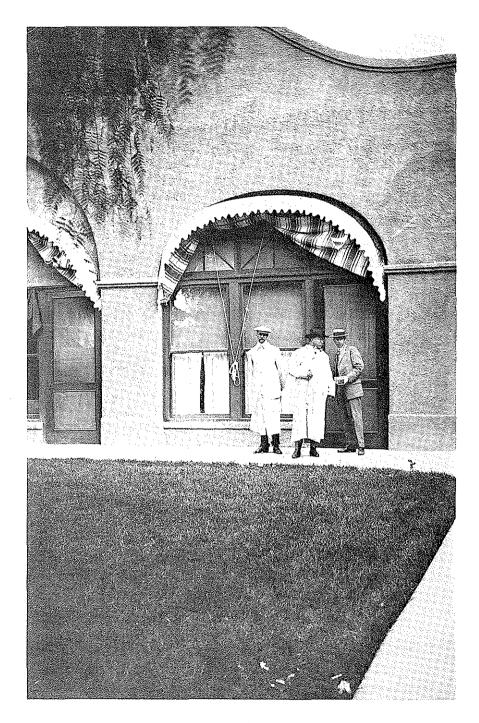
Most of the engineers and office men at Roosevelt were transferred to the Water Users' building in Phoenix. With the heaviest medical work now at Granite Reef, I moved my head-quarters to Mesa for two reasons: First, it was closer to both Granite Reef and Roosevelt, and second, it was on the south side of the river. In case of flood, I could make both camps.

We put up a field hospital at Granite Reef, and Dr. Tim went there as resident. At Roosevelt, I induced my brother-in-law Dr. Frank Pennell, who had just graduated from the Medical Department of the University of Michigan, to come and take over. Frank did not take too kindly to the West, civilized as it had become by that time. Nor did he get enthused about the practical side of medical practice, for at the end of a year he sold out and went into the furniture business with his wife's father in Lansing, Michigan — later, into automobiles with the Ford-Lincoln Agency, first at Fort Wayne and afterwards at Kokomo, Indiana.

On our way to the valley we were driving Lily S. and a horse named Star I had acquired as a colt at Roosevelt. Star was fairly well broken to drive, but very high spirited. It was raining, and we had the side curtains on the buggy fastened on.

Coming down a side hill grade above Tortilla Flat, Star must have got a horsefly under his belly or tail for he suddenly kicked and came down with his hind leg over the trace. In the ensuing scramble the horses tried to climb the bank three or four feet high on the left. This gave me time to tear off the side curtain and get Mame and the children out. Then as the horses came back on the road, I grabbed the reins but only caught the right hand one. Pulling on that swung the team off the road and down a rocky slope.

A couple of hundred feet down the buggy hit a rock, and went up in the air coming down on the horses' heads and knocking them down. I managed to get to their heads and hold them



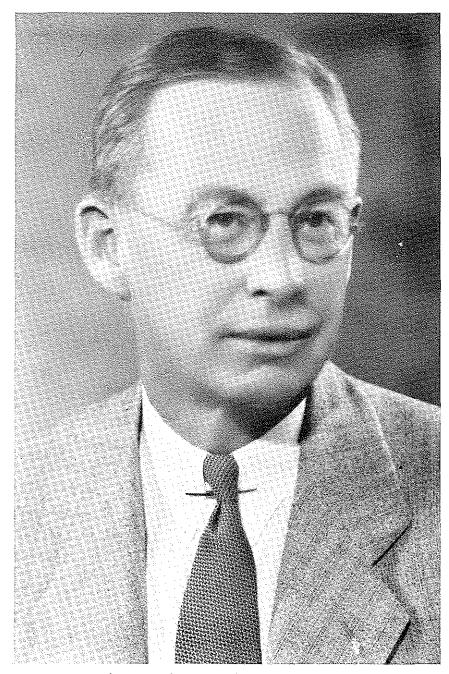


Interior view of Everybody's Drug Store, Mesa, founded by Dr. Palmer and Jake Lauffer in 1906.

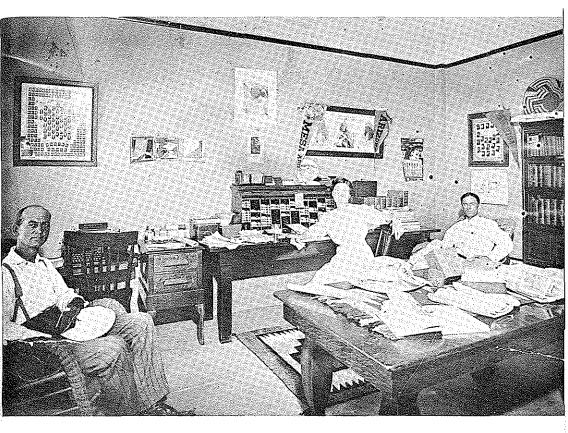
before they got started again. John Beebe, a freighter from the valley, happened to be coming up the road. Seeing my dilemma he ran down and got the team loose from the buggy.

The buggy was pretty well banged up, but the wheels were intact. John then brought down plenty of bailing wire to hold it together and a team of mules to get the buggy back on the road. The rest of the trip was uneventful though the team was pretty frisky and took us around some of the sharp curves a little faster than for comfortable driving.

AT LEFT: Professor Harry Evans, former President Theodore Roosevelt, and Dr. Ralph Palmer pose in front of Palmer's office, Chandler Court, Mesa.



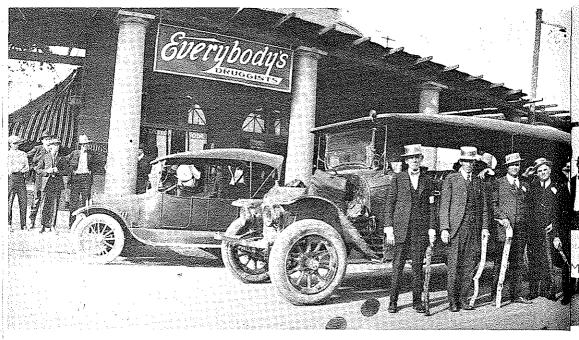
Dr. Palmer served as Mayor of Mesa from 1910 to 1912.



Corner of Dr. Palmer's Chandler Court office; he, nurse Ann O'Connell and patient: 1911.

At Mesa the horseback days were over. I continued, though, to use driving horses, keeping six of them in the stable to take care of the weekly trip to Roosevelt, a daily trip to Granite Reef, and an increasing country private practice. By 1907, however, automobiles were becoming more useful even on our undeveloped roads. Within a year I had graduated first to a motorcycle, then a one-cylinder Cadillac and finally to a Ford Model R. before I could get along without horses.

As the Water Users' Association gradually took over the project from the Reclamation Service, I continued doing Industrial surgery with them for some years.

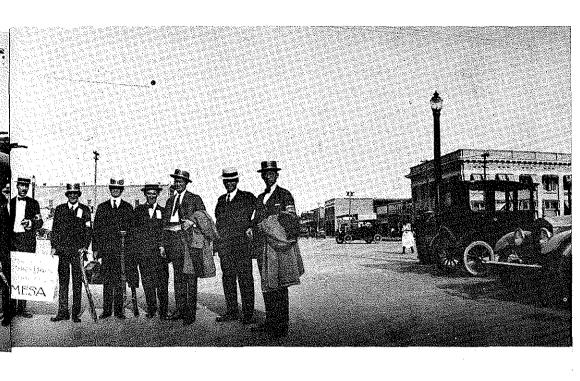


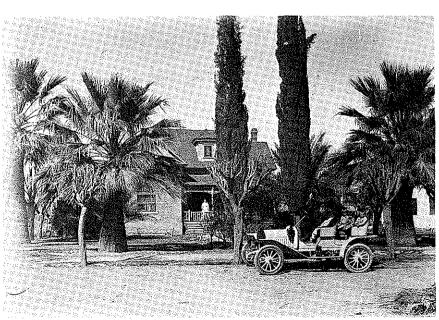
Dr. Palmer spearheaded founding of Mesa Rotary Club and was first president. On March 29, 1921, he with other charter members, boarded a bus to attend the Rotary International convention in Long Beach, Calif. Picture is in front of Everybody's Drug Store, northwest corner of Main and Macdonald Streets.

Our third daughter, Margaret, was born in Mesa March 10, 1907. We had set up housekeeping in a comfortable home there where we continued until 1933 when I moved to Phoenix as medical advisor to the Industrial Commission of the State.

In 1907, I opened the first hospital in Mesa in a rented home with capacity for three patients. During the next few years I built a hospital with 14 beds and completely equipped with examination and treatment offices, X-ray machine and operating room.

First palmer home in Mesa at 30 West First Street; Mrs. Palmer on porch — the doctor, Harriet, Margaret and Betty in car. House razed in 1974.





Dr. J. M. Greer came in as a partner in 1914, and continued with me until 1926 when he went to Phoenix as a bone and joint surgeon. During World War I while Dr. Greer was in the service, Dr. George Truman of Florence came into the office and later Dr. Melvin Kent was with me for a year. Both Dr. Truman and Dr. Kent have continued in Mesa. 1912 saw Arizona admitted to the Union as a State, and pioneering days were over.

In April 1950 the State Medical Association presented me with a medal for having practiced medicine fifty years. So, it is time to retire and let the younger and better prepared men take over — except that neither I nor Miss Elsie M. Jones, who came into my office in 1909 as secretary and office nurse and has been with me ever since, were ready to retire.

In the fall we opened an office in Mesa for limited office consultations.

Southside Hospital was Mesa's first real hospital, built by Shumway Brothers for Dr. Palmer in 1913.

