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A Commentary on the book "South Pacific Coast" by Bruce A. MacGregor

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A Commentary

on the book

"SOUTH PACIFIC COAST" by Bruce A. MacGregor

by

EDWARD T. ROUNTREE

Compiled, Edited, and Indexed by

Doris M. Johnson
Elizabeth Spedding Calciano

The University Library
University of California, Santa Cruz

1974

Edward T. Rountree allowed the University to make a typescript of his handwritten critique of Bruce A. MacGregor's book, South Pacific Coast, and place a copy of it in the Special Collections Room of the University Library at the University of California, Santa Cruz. It is to be used for research purposes only. All literary rights in the manuscript, including the right to publish, remain with the author. No part of the manuscript may be quoted for publication without the written permission of the University Librarian of the University of California, Santa Cruz.

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INTRODUCTION

How Edward T. Rountree's Commentary on the book South Pacific Coast came to be written tells much about the origin of some of the sources used in the writing of regional history.

Rountree, a life-long Santa Cruz resident and avid railroad buff, attended a meeting of the Friends of the Library at the University of California, Santa Cruz, in August, 1969. During the evening, author Bruce A. MacGregor lectured about the early railroad and his newly published book, South Pacific Coast.

Rountree carefully read MacGregor's book, and in certain instances found discrepancies and errors between his own contemporary observations and MacGregor's text. Rountree indicated this to former University Librarian, Donald T. Clark, who urged Rountree to set the record straight by writing out his memories of the early railroad and correcting and clarifying in his commentary, the passages in MacGregor's book that concerned him.

Rountree filled a spiral notebook with his handwritten observations and boyhood memories of the railroad, which had traveled between Alameda and Santa Cruz during the last years of the 19th century and the early years of this century.

This notebook was given to the University's Regional History Office where Doris M. Johnson compiled, edited, and indexed the manuscript, and consulted with Rountree as the

work progressed. The finished work is now on deposit in the Special Collections Room of the University Library, at the University of California, Santa Cruz and in the Bancroft Library, University of California, Berkeley.

Though never an employee of the railroad, Rountree haunted the railroad yards as a boy -- first in Old Felton, where he was born in 1896, and later in the Santa Cruz yards when his family moved to that town in 1905.

The completeness and thoroughness of Rountree's narration convey the seriousness and absorption of a boy completely at home in the congenial milieu of railroad yards and with the men who worked there.

In the yards, Rountree noticed everything. From the myriad initials and symbols which decorated and identified the boxcars, he got his first lessons in geography. He memorized the esoteric hand signals of the switchmen, and learned the ways of the railroad men. He could tell time from the daily comings and goings of each train and became expert in recognizing the

engineering details and mechanical modifications of the ever-changing engines and boxcars.

Rountree's manuscript -- though modest in length -- is a detailed commentary on South Pacific Coast as well as a rich source of contemporary observations of the early railroad and its effects on many aspects of life in Santa Cruz County.

Randall Jarrell

September 6, 1974
Regional History Project
University Library
University of California, Santa Cruz

A Commentary on the book "SOUTH PACIFIC COAST" by Bruce A.

MacGregor written by

Edward T. Rountree
(Born February 22, 1896)

What follows is the result of my reading the book South Pacific Coast Railroad by Bruce A. MacGregor, the story of the railroad that operated between Alameda and Santa Cruz in the latter years of the last century and the first years of this century.

I was very glad to get this book, as it brought back many memories of my childhood and contains a wealth of information that was new to me. The historical photographs reproduced in the book and the breezy style of the narrative should make it interesting even to readers who have no previous knowledge of the railroad or of the part of California that it served.

Rountree Family History

A little of my personal history might give some insight into my interest in the book. My father, Thomas Rountree, was born in Santa Cruz in 1866. He died in 1948 less than a mile from the place he was born and spent practically his entire lifetime in Santa Cruz County. My

grandfather Almus L. Rountree and my grandmother née Elizabeth Hildreth both crossed the plains from Missouri to California in the early 1850s. They came from different sections of Missouri and traveled to California by different routes and did not meet until after arriving here. They were married in the Los Angeles area and their first child, Mary, was born there in 1860. Their second child, John, was born in San Juan Bautista in 1862. The third child, Susie, born 1864, and their other six children, were born in Santa Cruz County. My grandmother had two sons by a previous marriage to a man named Rubottom. One of the Rubottom sons, when quite young, was kicked on the head by a horse and died as a result of the accident. The other son, Emphrey Rubottom, was a blacksmith by trade. He invented and manufactured a special type of plow that was said to be very good on road building jobs. He was a member of the Santa Cruz County Board of Supervisors for many years. On page 131 there is a sentence beginning, "As the railroad advanced up the canyon, to Rubottom and Ben Lomond --" This came as a surprise to me as I had never heard of a place called "Rubottom." That name is quite 'uncommon and I have never heard of any other family with that name in Santa Cruz County so I presume it must have been named for my uncle.

Just why it was named for him I cannot guess.

Mary Rountree married Charles Cummings who owned a sawmill somewhere in the Santa Cruz Mountains. The Cummings family had four children. The father died when the children were quite young. My earliest remembrance of my Aunt Mary was when she was operating a boarding house in Boulder Creek which was patronized by several railroad men. Aunt Mary's oldest child, Claire, married a handsome young locomotive fireman named Fred Reynolds. Fred was hired by a son-in-law of Hog Davis in 1895 to work in the Alameda roundhouse. At that time Fred was 20 years old. He was soon made fireman. The lower picture on page 217 shows Fred in the gangway of #13 when he was fireman on that engine. As the picture shows, #13 was still a wood-burner at that time. Fred said that stoking the engine with wood while pulling a heavy train up a steep grade was back-breaking labor, even with an extra man or two in the tender to pass the wood to him. Later coal was used for fuel, which made the stoking easier, even though the coal was of rather poor quality. Fuel oil was soon substituted for coal, then the fireman's job became a picnic, consisting of controlling the fuel valve and watching the water glass and steam gauge. By that time they even had a small steam cylinder and piston arrangement to ring the

bell. Soon after the picture mentioned above was taken Fred was promoted to engineer. He stayed with the narrow gauge until the entire system was broad gauged, then transferred over to the bigger engines and eventually to the more posh passenger runs. For several years he was on the Del Monte Express between San Francisco and Pacific Grove. He eventually became the senior engineer on the whole S.P. System with "bumping" privileges that allowed him to pick any run he chose. His last choice was the Coast Daylight. He retired in December, 1944, almost 70 years old and with almost 50 years of service. His service and the service of steam power were finished at almost the same time. Toward the end his engine was prettied up with a lot of gay paint and a camouflaged silhouette to make it look streamlined but at heart it was the same old steam locomotive with the same old horizontal throttle and vertical Johnson bar, and two air-brake valves. One refinement had been added to the locomotive -- a recording speedometer. The maximum speed limit of the Daylight was 70 miles per hour. There was a tape in the speedometer that made a chart of the speed of the train through its entire run, and woe to any engineer whose tape showed as much as 71 miles per hour on any part of the trip. During his career Fred had his share of mishaps. During his

narrow gauge days he survived several derailments and roll-overs without any serious injury. Later while in the passenger service his engine killed three men in two separate accidents in the same day. The first accident killed two men who drove their automobile onto the tracks at a grade crossing. Why this happened is a mystery. The crossing was in wide open country with full visibility for at least half a mile on each side of the crossing, and the engine sounded its mandatory warning signal on the whistle. In the second accident that day the engine hit a man who was sleeping too close to the rails.

In another accident in San Jose a truck driver with a truck-trailer combination loaded with gasoline crashed through a closed crossing gate. The truck got through safely but the engine hit the trailer, and in the resulting explosion the fireman died and Fred spent a month in the hospital recovering from burns. I believe the truck driver escaped without injury and none of the passengers were hurt as the train did not stop until after the last car had passed the scene of the crash. Fred's wife Claire died several years ago but he lived alone in the home in San Jose that he had owned for over fifty years until January 1970 when he died. He did most of his own housework and gardening right up to the last and drove

his own car up to a year or two before his death.

Alvin P. Cummings, Aunt Mary's second child, became a South Pacific Coast freight conductor. He was on the narrow gauge line until it was discontinued than had various assignments on the broad gauge. He quit railroading long before normal retirement age to raise grapes in the San Joaquin Valley, and did quite well in this new venture. Al is shown second from left beside engine 25 in the center picture on page 237. The engine in that picture wears the white flags of an "extra" train.

Susie Rountree, my father's second sister, married William P. Drum and they had two sons and a daughter, the latter still living and now residing in Oakland. W. P. Drum is mentioned on page 98 of the book as follows: "Construction boss W. P. Drum and his crew of ninety men quietly extended tracks from one of the ferry slips back along the Estuary toward the Webster Street wagon bridge." Drum was the construction engineer in charge of building a large part of the S.P.C. He built the Boulder Creek branch and the New Almaden branch as well as at least a part of the main line over the Santa Cruz Mountains. There is a story to the effect that in the construction of one of the long tunnels near Laurel he had two crews at work, one crew on each end working toward each other. According to the story, when the two crews met and "holed through" they were

seven-eighths of an inch out of line and that when Drum learned of this error he broke down and cried. Personally I do not believe this story. If there was any crying it was due to relief that the connection had been so close. A margin of seven-eighths of an inch on a job of that size would be considered perfect. Neither of the Drum sons worked on the railroad. The older, Richard, became a machinist and worked for a time at the California Powder Works. He later spent a good many years as an automobile salesman and ended his working career in the position of chief engineer on a fireboat in San Francisco Bay. The younger son, Rupert, became an actor and to the best of my knowledge never followed any other line of work.

W. J. Rountree -- Springfield, Missouri to Santa Cruz,
California, 1869

When the golden spike was driven at Promontory, Utah, connecting the Union Pacific and the Central Pacific in May, 1869, the western terminal of the Central Pacific was Sacramento. The final link to the San Francisco Bay area was not completed until September 6 of that year. W. J. Rountree, who completed his trip from Springfield, Missouri, to Santa Cruz shortly before September 6 wrote as follows: "Council Bluffs is across the river from Omaha and some four miles distant. Passengers for Omaha are transferred from this place

by a transfer company without extra charge." The letter does not mention how they got across the river, but from Mr. MacGregor's statement that there was no railroad bridge across the river the crossing must have been made by a ferryboat or by a bridge designed for horse-drawn vehicles. Another interesting note: At that time the terminal of the Union Pacific was at Promontory, Utah, rather than at Ogden as at present. There were no through cars, so passengers and baggage had to be transferred at Promontory from the Union Pacific to a Central Pacific train. This caused a delay of two hours. W. J. Rountree thought that it was remarkable that they had traveled 1084 miles without a change of cars. Another interesting note: The train was late departing from Colfax and a telegram was received ordering that the speed be increased from 20 to 30 miles per hour to arrive at Sacramento in time to make connection with the boat to San Francisco and the train for Vallejo. Through passengers rode the boat "Yosemite" from Sacramento to San Francisco. In view of the statement on page 13 of Mr. MacGregor's book I wonder if the Vallejo referred to was the present city of Vallejo or the old flour mill of Jesus Vallejo at Niles. W. J. Rountree's letter said, "Arrived home (Santa Cruz) the evening of Sunday, Aug. 29, 1869, a distance of over 2000 miles and traveled but about eight days."

His route was:

Stage, Springfield, Missouri to Sedalia, Missouri

Rail, Sedalia to Kansas City, Missouri

Rail, Kansas City to St. Joseph, Missouri

Rail, St. Joseph to Sacramento, with change of
cars from Union Pacific to Central Pacific at
Promontory, Utah

River Boat, Sacramento to San Francisco

Rail, San Francisco to San Jose

Stage, San Jose to Santa Cruz, with stop for lunch at
Mountain Charlie's

He mentioned that at the time of his journey the railroad
line from San Francisco to Los Angeles had reached Gilroy.

Thomas H. Rountree and the Powder Works Horse Teams

Thomas H. Rountree, my father, worked for about twelve
years driving the team shown on page 161 for California Powder
Works and its successors. When my father first went to work for
the powder company the team was driven by a man named Ira
Starr. Shortly thereafter Starr left the company and my father
took over the team and stayed on that job until the powder
works closed down in 1915. Our family moved to the Powder Works
Village in the fall of 1906 and we lived there four years.
During that time I spent a great deal of my spare time riding
the cars or, if the team went from one location to another,
riding one of the horses. I do not know the date of the picture
in the book, but it would have to have been prior to 1906, as
the lead horse in the picture is not familiar to me. At the

time I started going the rounds with my father the dappled grey shown in the picture was no longer in the team. In 1906 the team's first two horses were white, then there were two blacks and finally the big brown wheel horse, the same one shown in the picture. Sometime later a sixth horse was added, being placed somewhere behind the second white horse but in front of the wheel horse. With the exception of the dappled grey in the picture the others could have been in the team during my father's time. I do not recognize the man on top of the car.

It will be noticed that the horses were driven without reins. They were controlled entirely by vocal commands. As the team approached a switch a shouted "Gee" or "Haw" told the lead horse which track to take, and I never saw her make a mistake. From the valley floor up to the top of the hill where the powder company tracks connected with the railroad company's main line was a long hard pull and several rest stops were required. The stops were always in the same location and when the team came to one of these locations they would stop automatically. During this drag up the hill the driver walked to urge the horses on while the brakeman rode the car to set the brakes when the rest stops were made -- otherwise the horses would have had to hold tension on the traces to keep the car from rolling back down the hill. In setting the brakes the brakeman used a wooden club for leverage on the brake wheel. In the picture the brakeman with

his club can be seen at the brake wheel ready to release the brake when the time comes to proceed on up the hill. Notice the number 450 on the car. As no cars in the 400 series were listed in the 1892 listing in the appendix of the book this car must have been built or bought after that date.

From the above it will be noted that our family had connections with the old S.P.C. in several directions.

Old Felton

I was born in what the book calls "Old Felton" in 1896 and lived there until I was seven years old. The approximate place where I was born is shown by a red X on the drawing copied from page 122 of the book. The railroad was between our house and the road then called the Tollhouse Road but now a part of State Highway 9. The railroad as I remember it terminated at some warehouses near our house. If the lines marked "Hihn" and "Holmes Lime Co." were there during those seven years I do not remember them and of course the line marked "Flume Transfer" had been gone a long time. At that time all passenger service was at the Felton Station but a freight train came to Old Felton in the middle of the afternoon each day. I can remember that the high point of my day was the arrival of this train. Once when I apparently thought

the train was overdue I asked my mother when it would come. She answered "Poco tiempo" which loosely translated from the Spanish means "pretty soon." Do not get any wrong ideas about my mother's nationality. She was born in Wisconsin and the "poco tiempo" was probably her complete Spanish vocabulary. Well, the train did come "poco tiempo" and I can remember it as if it were yesterday -- the little engine with its diamond stack, and although quite young I was able to read the words "South Pacific Coast" on the engine. That mystified me as the railroad was always referred to as Southern Pacific, or its more common abbreviation, "S.P."

The Santa Cruz Railroad Yards

In the fall of 1905 we moved to a house in Santa Cruz within easy walking distance of the railroad yards, and that opened up a new world to me. I spent as much time as I could around the yards and soon learned the hand signals by which the switchmen communicated their orders to the engine crew. At that time the Santa Cruz yards were laid out with the three rail system to accommodate equipment of either gauge. The narrow gauge cars were of no great interest because they all had the same markings, but on the broad gauge there was an endless variety of names and initials -- U.P., G.H. & S.A., N.P., N.Y.C., M.L. & T., I.C. -- I learned them all and with this I learned something of the geography of the areas served by the various lines. In later life I never worked for a

railroad company but in my work there was a certain amount of transportation involved and I think that the knowledge I gained in those railroad yards was of considerable value.

One hot summer day when there didn't seem to be anything of interest going on I was sitting alone on the ground in the shade of a boxcar when I was approached by a whiskered character. He was fairly well-dressed with a long coat, derby hat, and to me, an unusual vest. Whiskers were not unusual in those days but usually on old men or on professional men such as doctors and lawyers. He sat beside me and started a conversation that he soon led around to the kind of thing you would find today in modern books, far-out movies, or college demonstrations, but were in that era considered quite improper. I had heard such language boy to boy or man to man, but never before man to boy, and I didn't know how to handle the situation, which was making me more nervous by the minute. Then he invited me to go with him to an old abandoned tannery which was on Laurel Street hill just below California Street. I didn't know what it was all about, but decided he was up to no good, so I quickly rolled under the car then ran as fast as I could. He did not try to follow. A few years later when I got a little more knowledge I decided that I knew what it was all about. I did not know at the time but some instinct told me to run and I ran. A few days later I saw him driving a

horse and buggy on Pacific Avenue but I never saw him afterward. I never told my parents of this incident, and never told anybody else until many years afterward.

The Powder Works Horse Teams, continued

When I wrote about the Powder Works transportation I should have mentioned their block signal system. Any one who is familiar with the present Paradise Park will know about the narrow stretch of road between what we called the upper flat and the lower flat. This road is where the track used to be. It was narrower then than it is now because a water flume ran beside the tracks. The big team was not the only transportation using that track. There was a car drawn by one horse that took the powder from the corning mill in what is now the picnic area of Paradise Park to the glaze mills in the lower flat. During the time when both black powder and smokeless were being made there was also a three-horse team pulling cars around. If two teams met on that narrow section of right-of-way something had to give. A locomotive can back up but the only way you can change the direction of a horse-drawn car is to put the horse or horses on the opposite end. Most of that stretch of right-of-way was too narrow for such a maneuver. The mountain was on one side and the flume and the riverbank on the other. Our clever electrician solved the problem. At each end of the

narrow piece of roadway there were side tracks and room to shift the horses around. He had a pole set up close to the tracks at each end of the narrow stretch. At the top of the poles he put crosspieces with the ends sticking out 1 1/2 or 2 feet from the pole. In the center of the crosspiece he mounted an electric light and a switch. The switch was operated by sash cord ropes. One rope attached to the switch ran to a little pulley at the end of one side of the crosspiece and thence to within four or five feet of the ground where a lead weight weighing perhaps a pound was attached. Another rope fastened to the other side of the switch went through a pulley on the other side of the crossbar, and in the same way the weighted end hung down toward the ground. When one of the ropes was pulled down the other went up. If the light was off it could be turned on by pulling the rope whose weighted end was highest from the ground. If the light was on it could be turned off by pulling the rope whose weighted end was highest. The lights at both ends had to be off or on at the same time. Thus if a team approaching one end of this narrow strip of roadbed found the light burning it indicated that there was another team within the "block", and would wait until the light went off or until the approaching team made the meet and got into the clear. If the light was not on when a team approached the driver reached out and pulled the rope to turn it on as he passed by, then

pulled the rope to turn the light off when he passed the other end. Nothing automatic or fancy -- just a plain light globe not green, amber, or red, but satisfactory for the intended purpose.

The Changeover from Narrow Gauge to Broad Gauge

The powder company owned very little rolling stock -- not more than four or five cars built to be used for specific purposes within the plant. None could be used on the main line of the railroad company. When railroad company cars arrived under load they were left on the powder company spur by the train crew. They were then rolled down the hill by gravity to the floor of the valley under the control of the teamsters' brakeman, then taken by the team to the location of the warehouse where they were to be unloaded, after which the empties were pulled back up the hill for delivery to the railroad company. Often a boxcar which arrived under load could later be reloaded with powder consigned to a customer. If there did not happen to be an available empty in the plant when one was required for loading the railroad would be called upon to furnish one.

A narrow gauge railroad in an area where standard gauge roads predominate is an uneconomical situation. Any shipment originating at a point served by only one gauge and consigned to a destination served by another gauge has to be transferred somewhere enroute, causing delays and added expense. In the

years that the narrow gauge operated there was always a crew of men at work in Santa Cruz transferring freight from cars of one gauge into those of the other. During periods of low water when water power could not be used, the powder company burned fuel oil to generate steam to run their electric generators and to provide heat for their buildings. The oil came to Santa Cruz in broad gauge tank cars, where it had to be transferred to narrow gauge cars. One broad gauge carload filled two narrow gauge cars. The facilities for this purpose consisted of a broad gauge spur and a narrow gauge spur side by side where the Stagnaro parking lot is now. To effect the transfer the cars on the two spurs were connected by pipe lines with an electrically-driven pump between. The man who did the necessary work in connection with this operation was a powder company employee. After the railroad was broad-gauged the broad gauge tank car was spotted on a side track at the powder works station on top of the hill. The two narrow gauge cars were spotted at the bottom. A pipe line connected the cars at top and bottom of the hill and the oil flowed by gravity. Unfortunately the storage tank at the powerhouse was too far away to make a direct connection from broad gauge to storage, so the horse team had to deliver the filled cars to the powerhouse.

I do not know whether the two narrow gauge tank cars were originally owned by the powder company or the railroad company, but the ownership of the two cars was with the powder

company after the main line of the railroad was broad gauged, if not before. Regarding the changeover from narrow gauge to broad gauge at the powder works station my father told me the following story: "The railroad crew told me when the last narrow gauge train would be at our station and instructed me to have all of the railroad company's cars at the station for pickup. I reported this to the works superintendent and he told me that under no circumstances were any of the cars then in the plant to be delivered to the station." The result was that when the changeover was made four or five boxcars and some flat cars were trapped inside the plant. The powder company bought them from the R.R. Co. and they were used for internal transportation until the powder works closed down in 1915. This makes a good story but it seems to me that the negotiations for the acquisition of railroad company rolling stock by the powder company would have been carried out at a higher level than the works' teamster and the railroad crew. No doubt the powder company and the railroad company made arrangements ahead of time for the transfer of ownership of the equipment, and that when the superintendent told my father not to deliver the cars to the top of the hill he may have feared that an overzealous train crew might pick them up and thus deprive the plant of essential transportation. When the final day of narrow gauge operation had passed, four or five boxcars, two flat cars, and the two oil tank cars were left in the powder company yards. This fleet of cars was sufficient

for the powder company needs.

After the changeover all incoming and outgoing freight had to be transferred from cars of one gauge to cars of the other at the powder works siding, except that the railroad built a few hundred feet of broad gauge line a few hundred feet down to the nitrate of soda warehouses. More than half of the formula for black blasting powder consisted of nitrate of soda, the other ingredients being sulfur and charcoal. After broad gauging, all other incoming and outgoing freight had to be transferred at the top of the hill from one gauge to the other except the fuel as mentioned above. This was an expensive operation, and the high cost of internal transportation and transferring could easily have been an important factor in the decision to close down the works.

Kelly's Boiler Compound

Fred Reynolds told me the story of "Kelly's Boiler Compound" and its additional use in the repair of the leaks in the water tank. The way he told it to me is essentially the same as it appears in the preface of the book. Fred also told me about Johnny Bunting and his oil wells. Fred said that Bunting had approached him for the loan of \$50, promising in return to pay Fred half of the oil well profits. Fred did not make the loan, but did not say whether it was because he considered it a poor risk or because he did not have the \$50 at the time. Obviously Essen, who loaned the money, did not get half of the

profits, otherwise he also would have been riding around in a private car instead of staying in the oil fields working as chief mechanic.

The Evolution of Engine #20

The first picture of this engine, page 82, shows the left side. It shows the pilot extended well forward and shows the link-and-pin couplers. No air brake hoses are visible. The headlight is larger than on some of the later pictures. The stack has a decorative flange on top. The sand dome and the steam dome show similar lines. I cannot tell from the tender whether the fuel was wood or coal, but it has more of the appearance of coal.

The next picture of #20 is on page 201. This is no doubt a later picture. The pilot has been shortened, air hoses added, sockets appear on each side in front of the cylinders for push-poles, and the whole coupling arrangement changed. It has couplers for both link-and-pin and automatic couplings. In the later years of the road the passenger cars were equipped with automatic couplers and air brakes but the freight cars had link-and-pin couplers and no air. I had wondered how the situation was handled if the same engine had to be switched back and forth between passenger and freight service. I am still not sure whether the couplers on this engine were

fastened to some kind of hinge arrangement to permit their being swung back and forth for the kind of service required or whether the automatic coupler on this engine was to make it possible for this narrow gauge engine to work broad gauge cars on a three-rail system. In this second picture a new stack has replaced the old one. The sand dome is the same as in the previous picture, but there is a flanged steam dome. Small signal lights have been installed on the sides of the smoke chest.

The next picture, page 219, shows #20 rolled over into the ditch. As nearly as can be seen the arrangements are the same as shown on page 201. Fred Reynolds said that when this wreck happened the engine had just come out of the backshop and was on its way to the first new assignment. The cause of the wreck was too much speed on a curve.

On page 241 the #20 is shown in the same location as in the picture shown on page 201, but with the difference that she is now at the head of a long line of freight cars and wears the white flags of an "extra." All of the various features of the engine on pages 201 and 241 are the same as far as I can see.

The #20 shown on page 275 is essentially the same as that shown on page 82. The page 275 picture is probably later than the page 82 picture as it has a more modern type of

headlight, a different and apparently higher stack and a larger tender, carrying the number 20 whereas the earlier photo was lettered "S.P.C."

Santa Cruz and Felton R.R. Engines

The record shows only two engines belonging to this railroad, both Porter-Bell 0-6-0 type, pictured in five photos pages 145, 146, and 147. The chief difference between the Porter-Bell and most other engines is that the cylinders had a downward pitch. According to the equipment listing #1 was named the "Santa Cruz" and #2 the "Felton." Also according to the equipment list the "Santa Cruz" was sold in January, 1881, and was never in this area after that date. The "Felton" was taken over by the S.P.C., sold to Dougherty Lumber Company 1888 and last operated there for Wildwood R.R. tourist operations. According to the newspaper clipping shown on the next page the Dougherty lumber operation closed about 1909 and that is probably when the Wildwood tourist operation bought the engine. No subsequent history of this engine is given. There seems to have been several number changes on these engines so I shall refer to them by the names "Santa Cruz" and "Felton." In spite of the similarity in construction there are several minor differences whereby one engine can be distinguished from the other. Taking these differences into consideration I would say that the engine on page 145 and both of the pictures on page 147

were the "Santa Cruz," this in spite of the fact that the stack shown in the top picture on page 147 is different from those shown in the other two pictures. The stacks on the two pictures on page 146 are the same, but unlike the one on the top picture page 147. In the picture page 145 I think that the "Santa" in the name "Santa Cruz" can be discerned. Therefore both of the pictures on page 146 must be of the "Felton." All of the mechanical features in these two pictures are the same except that in the top picture the engine is equipped with the conventional pilot, or "cow catcher" while in the bottom picture the pilot has been removed and a plank running crossways has been substituted. The plank across the front was often put on engines engaged principally in yard work. There is no way of knowing whether the bottom picture was taken before or after the engine had been transferred to Dougherty ownership.

The caption of the top picture says that the photograph was taken some time around 1910. The photo is against the background of the tender of a large broad gauge engine. This would date the photo some time after 1907. I would assume that the Dougherty Lumber Company would have used the engine until they closed down their operations, which according to the newspaper clipping was "around 1909." My further assumption is that when the original

Then And Now . . .

Dougherty's Lumber Mill was going full blast in the 1890s during Boulder Creek's days of glory as the second biggest lumber shipping point in the west. Some of the men pictured above helped to conquer "an almost unbroken primeval forest of redwood trees," according to W. S. Rodgers, editor of a pioneer newspaper called The Boulder Creek Mountain Echo.

The railroad line called "The Dougherty Extension." In 1897, a peak year, carloads of lumber from this mill were added to a train "half-a-mile-long" that sorted out daily from Boulder Creek to carry wharf poles, railroad ties, lumber and redwood "split stuff" to an eager world market.

An engine called The Dinkey was used on the Dougherty Extension. It lives on in story for on February 23, 1897, it

plunged off the rails and fell 35 feet into the San Lorenzo River. Engineer A. Skelton and brakeman John Edward Gaffney escaped injury. Men were determined that The Dinkey

should roll again, so the engine was hauled up to a flatcar by hardworking horses and taken off for repairs. In May 3 the engine was back in service, and Boulder Creek cheered.

Gervase Gaffney, son of the brakeman who escaped injury in the accident, reports that Dougherty's mill shut down around 1900. By then most of the Boulder Creek hills were bare.

The property was acquired in the 1940s by the late Paul Thiel and transformed into the Riverside Grove residential development six miles north of Boulder Creek on Highway 9. Fine homes, a swimming pool and

second-growth redwoods make it difficult for oldtimers to believe a sprawling lumber mill once existed here. The same site is shown in the photograph below.

But pioneer George Cress recalls: "Back when I was in the livery business in the early 1900s I used to haul millworkers to town from Dougherty's for 50 cents each way. Bringing 'em in wasn't too hard. But they'd get liquored up in town and have fistfights, so getting 'em back was more of a challenge."

And Gervase Gaffney of Scotts Valley, who was a boy here long ago, recalls through the oldtime photo some lively times he once enjoyed as The Dinkey thundered in to pick up the lumber the mill produced.

pilot was removed it was stored away somewhere, and then when the engine was sold to the amusement company the pilot was replaced to give the engine a more authentic look. I think the lettering B.C. & P.R.R. is immaterial, having been put on by the amusement company who were not exactly familiar with the engine's history. Too bad we do not know the final disposition of the "Santa Cruz" and the "Felton." They may still be around in a movie studio or in an amusement park such as Disneyland or Knotts Berry Farm.

One thing more about engines. I have a photograph, inherited from my father, showing the first broad gauge engine to serve the powder mill siding. The photo is a front view of the engine with a total of fifteen men sitting or standing on or near it. Being a front view it is impossible to see the wheel arrangement. The engine number is shown in three places on the headlight assembly and on the sand dome but the angle of the photo and the small size of the figures make it very difficult to decipher the number. By the aid of a magnifying glass I could make out the first, third, and fourth digits 2-76. The second digit might be a zero, or a nine, so the number looks like either 2076 or 2976. Included in the picture are my father, his brakeman, one of my uncles, the powder works assistant superintendent and chief clerk, one laborer leaning on his shovel, assorted powder company and railroad employees, and our family dog. An interesting feature of the picture is that

the engine stands on a three-rail system near a split-rail switch, with the switch rod connected to the narrow gauge rails only. This meant that narrow gauge equipment could be switched either way but broad gauge was limited to one way. The photo was taken 1907 but unfortunately is not marked with the explicit date of that year.

Narrow Gauge Cars

Several pages of the book are devoted to details and plans for the construction of various kinds of passenger and freight cars. Some of the plans are so completely detailed that a moderately well-equipped shop could duplicate the cars today. The final resting places of a few cars are known, but by this time most of the metal parts must have gone into the steel mills as scrap metal and the combustible parts burned. As already stated, some of the cars went to the powder company. When the Santa Cruz plant of Hercules Powder Company closed down in 1915 some of the manufacturing equipment went to new black powder operations at Hercules, California (Contra Costa County) and Bacchus, Utah. The demand for black powder later dropped off to the extent that operations were discontinued in Utah in 1924 and in Contra Costa County in 1955. At the time of the 1915 closing at Santa Cruz, two or three of the cars went to the Hercules Plant and were used there until black powder operations were discontinued. The black powder line at that plant was built at a considerable distance from the already existing dynamite plant. The Santa

Cruz cars were used to take empty kegs and powder ingredients from the dynamite area out to the black powder area and to return the finished powder to storage. When I was transferred to Hercules in 1915 the motive power was Porter compressed air locomotives. Compressed air was piped along the right-of-way at about 600 lbs pressure with filling stations at intervals along the line. When the air in a locomotive began to get low the driver would stop and load up with his 600 lbs of air then proceed. There was a slight upgrade to the black powder plant and the engines going up under load would have to stop three or four times to take on air. On the downgrade return the whole run could be made without refilling. A few years after I got there the air power engines were discontinued in favor of engines powered with gasoline engines. I never heard what became of these old Santa Cruz cars after 1955. They may still be there, but I doubt it as out-of-service equipment is taxed the same as equipment in use, and a well-managed business will not keep any more taxable equipment than necessary.

I do not know whether any of the Santa Cruz rolling stock was sent to Utah. When I went there in 1925 the black powder had been closed down for a year and there was no rolling stock left at the black powder plant.

Felton Area Railroad Lines

In the book on page 122 there is a map of the railroads

in the Felton area. [See page 13 of this volume] I have drawn in colored lines to designate various phases of construction. First the original S.C. & F. in green, all on the west side of the river, completed 1875. Next the S.P.C.R.R. coming down from Los Gatos through Felton Station and joining the S.C. & F. just below a bridge across the San Lorenzo at Big Trees. This section colored dark blue. Next a portion of the Boulder Creek branch, colored brown, replacing the flume which had been in operation a few years. I do not know when this was completed. Finally the section which took off from the Boulder Creek branch just above Felton Station, crossing the San Lorenzo on a new bridge just a few feet downstream from the Felton covered bridge. This is the only piece of road on the map that never was narrow gauge. It was built in 1907 and is colored red. The section of the original S.C. & F. which ran from the junction below Big Trees bridge to Old Felton was never broad gauged and became obsolete and was abandoned after the line was broad gauged.

At this writing, 1969, the only remaining part of the line runs from Santa Cruz to serve the extensive sand quarry at Olympia, a short distance above Felton. There are extensive deposits of sand suitable for making concrete in an area between Scotts Valley and Zayante Creek. There are several sand quarries in the area, most of them using large hopper truck and trailer combinations to haul the sand. The quarry at Olympia is the only one now served by rail. If the

Olympia operation should become exhausted or changed over to motor truck transportation, I am afraid that this last section of the old S.P.C.R.R. would have to go, as I do not believe there is enough other freight in the San Lorenzo Valley to warrant retention of the line. If the sand operation should end, it might easily doom the entire railroad operation in Santa Cruz County. The passenger operation has been gone for several years. The freight operation consists of the original Santa Cruz R.R. line from Pajaro (Watsonville Junction) to Santa Cruz, and the Olympia and Davenport branches out of Santa Cruz.

In the early years of this century a large volume of business was generated by the Cement Plant at Davenport. Forty to fifty cars per day used to go over the Davenport branch. Some fifteen to twenty of them were fuel oil tank cars. Now oil tanker ships anchor off the plant at Davenport and discharge their cargoes of oil direct to the cement company storage tanks, and most of the finished cement is trucked away. There is still a small amount of freight to and from the cement plant, some to the chewing gum factory, and some to various agricultural installations along the coast, but it is doubtful if these would be enough to warrant continuation of the Santa Cruz County operations if the sand business should dry up.

One thing happened while we lived within a short walking distance of the railroad yards that I never could understand. We moved to that location in the fall of 1905 and stayed there

for approximately one year, which means we were there at the time of the 1906 earthquake. The event of which I speak was the appearance of a string of empty narrow gauge boxcars in the Santa Cruz yard. There must have been fifteen or more all freshly painted and refurbished. All had patent couplers and air connections. Most of them were equipped with air brakes but a few were not. Those without air brakes had air pipes running beneath them that served no other purpose than to take air through the train so that there would be an uninterrupted flow of air through the entire train. I do not know whether their arrival was before or after the earthquake. I did not see them come and did not see them go. They were there for a few days and then they were gone. I presume that they must have come in before the earthquake as narrow gauge service across the mountain was never resumed after April 17, 1906. The only way they could have come in after the earthquake would have been on board broad gauge flat cars and that does not seem reasonable. Narrow gauge service continued between Santa Cruz and Boulder Creek until some time in 1907, but link-and-pin couplers remained on the freight cars to the end. If I am correct in my assumption that they were brought in before the earthquake they could have been brought behind an engine ordinarily used for passenger service or behind an engine equipped like #20 for either service. If they were trapped in Santa Cruz by the earthquake, they might have been loaded on broad gauge flats and shipped to some other narrow gauge line as was so much of

the narrow gauge rolling stock.

Passenger Trains

When the broad gauge was completed over the mountain in 1908 the arrival of the first passenger train was a gala event and large crowds of people were on hand at the station to celebrate the occasion. I was in the sixth grade in the old Mission Hill School at the time. Our class and no doubt most of the other classes in the school went to the depot for the arrival of the train. We had been taught special yells such as those led by cheerleaders at a school athletic event, so the party was quite noisy.

After that we no longer had to make the long trip via Watsonville to San Francisco or Oakland, but could go to either city without changing trains. A train left Santa Cruz at 7:00 a.m. and went to San Francisco via the Los Altos cutoff, joining the main line at Mayfield. [Mayfield has since lost its identity, now being a part of Palo Alto] This route bypassed San Jose, and with nonstop service between Mayfield and San Francisco the scheduled run between Santa Cruz and San Francisco was less than three hours -- a marvel of speed for that era. The train started its return trip from 3rd and Townsend around 4:00 p.m. and traveling over the same route arrived back in Santa Cruz at 7:00 p.m. If I remember correctly, this was a daily except Sunday schedule.

Another train left 3rd and Townsend in the morning,

probably around 8 o'clock, arrived in Santa Cruz between 11 and 12 and went on to Pacific Grove. On its return it arrived in Santa Cruz around 6:00 p.m. then on to San Francisco. This train went both directions via San Jose. On Sundays during the summer months this train ran in three or four double-headed sections between San Francisco and Santa Cruz, with only one section going on to Pacific Grove, the others resting for the afternoon until time to return, again in several sections, to San Francisco and way stations. This arrangement made it possible for the city dwellers to have a Sunday afternoon at the beach or at one of the many resorts in the Santa Cruz Mountains. The Sunday round trip rates were extremely reasonable. The S.P. owned a controlling interest in the Santa Cruz Beach Company, operators of the casino and boardwalk, so it was to their interest to lower their fares sufficiently to attract large crowds to the beach. The Pacific Grove section stopped at the casino so it was not necessary for many passengers to make the trip from the depot to the beach.

Another train left Oakland around 8:00 a.m. and arrived in Santa Cruz some time in the middle of the day -- I believe it arrived a little later than the San Francisco train. As soon as the train was free of passengers it ran around the "Y" and after some quick servicing it was ready to head back to Oakland.

These were the three main line trains. In addition we had a few locals on the Boulder Creek run and others between Santa

Cruz and Watsonville Junction, and three daily commute trains to Davenport.

During those days, before motor truck competition, the freight volume was much greater, so the Santa Cruz yards were very busy.

My memory is not clear as to the date the Los Altos cutoff was opened. Possibly it was sometime later than the resumption of traffic over the mountains.

After the severe storms in the early part of 1940 washed out some of the road in the mountains between Felton and Los Gatos the damage was never repaired so service had to be stopped. I was not living in California at the time so do not know what passenger traffic if any came to Santa Cruz via Watsonville. The summer season Sun Tan Special was continued for a few years, but had already been discontinued when I returned to Santa Cruz in 1961. Since my return I remember three chartered specials, the last of which was chartered for Richard M. Nixon's unsuccessful campaign for Governor of California in 1962.

Santa Cruz Wharves

On page 123 of the book appears the sentence, "A new 1278-foot wharf was begun to serve as lumber transfer when the railroad began train service." This wharf is the second one in the picture on page 155. The first wharf shown in the picture

was owned by the Cowell Company. It started on the bluff where the Sea and Sand Motel now stands, at the foot of Bay Street. There was a fairly steep grade between the land end and the water end. I never was on that wharf, but on a few occasions I saw steamships moored to it taking on cargo. Cowell had quite a large warehouse on the corner of Bay Street and what is now part of West Cliff Drive. Lime and other products from the Cowell Ranch (now UCSC) were hauled by ox teams down Bay Street to the warehouse. There was a tramway from the warehouse down the wharf incline to the ship loading area. The loaded cars ran down the incline by gravity but I am sorry to say that I have no remembrance of how the empties got back up to the warehouse. There was no street where West Cliff Drive now passes the Sea and Sand Motel. It was necessary to detour around the warehouse via Bay, Lighthouse, and Cowell Streets. The warehouse remained many years after the wharf operations stopped. I do not know for what purpose or by whom it was used during its later years. It was torn down fairly recently. The wharf stood unused when I left Santa Cruz in 1915. I do not know when the remnants were torn down, but it was long before I returned to Santa Cruz in 1961.

The second wharf is the railroad wharf shown as the middle one on page 155. In my boyhood there were tracks running along the wharf to a warehouse at the end, but I never saw any cars on it. It stood until after the present municipal

pier was built about 1913-1914. Unlike the other two wharves shown in the picture, its deck was level. Part of the concrete abutment where the wharf started at street level can still be seen just west of, and connected to the abutment of the present municipal pier. Most of the pier was torn down long ago, but some of the piling and deck remained until the early 1960s to support a restaurant and a fish market. Only about two or three years ago a crew consisting of a caterpillar tractor and some scuba divers were busy pulling out the snags of some of the old piling evidently as a safety precaution to prevent injury to swimmers.

The third wharf in the picture is the powder mill wharf. Its land end was on the top of the hill where Main Street is now. When the powder plant was built there was no rail transportation in Santa Cruz, so ocean shipping was needed to bring in raw materials and ship out the finished product. It was therefore necessary for the powder company to build their own wharf. After rail transportation became available the wharf was no longer required. I do not know when the powder mill wharf was torn down, but it was long before my time. In the wintertime the tides carry away much of the sand on the Santa Cruz beach, and in the summer it returns. Sometimes during the winter season some of the stubs of the piling of the powder mill wharf can be seen sticking up above the level of the sand. In addition to the wharf the powder company built some

warehouses. As the warehouses are not shown in the picture I assume that the powder company had discontinued the use of the wharf before the picture was taken.

I have heard that in the early days of Santa Cruz a wharf was built by a man named Gharkey. When or where the Gharkey wharf was built I do not know. On October 12, 1969 I attended a meeting of Santa Cruz Old Timers, an annual affair. At this meeting there was a display of rare old photographs. One of them showed an offshore bridge connecting the railroad wharf and the powder mill wharf. I had not previously been aware that such a connection had existed.

Another photo taken when the Atlantic Fleet was in the harbor in 1908 showed the Cowell wharf with a considerable portion of the center structure missing, leaving the shore end and the offshore portions intact. I did not remember this condition.

The Municipal Pier

The story of the municipal pier is as follows: The shippers of Santa Cruz became very much dissatisfied with the Southern Pacific service and tariffs. Appeals to the S.P. to improve the situation brought no results. To bring the railroad company to terms both the City of Santa Cruz and the Santa Cruz Portland Cement Company threatened to build wharves for competitive water transportation. The cement company followed through to the

extent of delivering two or three dozen concrete piles to the beach. They lay there for a year or so unused and were finally taken over by the city and used in the construction or repair of a bridge across the San Lorenzo at Water Street. The city on the other hand went ahead with their plans. They issued \$165,000 in bonds to finance the construction. Soon a steamship loaded with piles appeared and anchored offshore close to the whistling buoy. The piles were rolled overboard from the ship and a number of gasoline launches from the local fishing fleet were hired to tow the piles from the ship to a point as close to the breaker line as they could safely go. A steam-powered donkey engine had been placed on the beach and by means of a long cable pulled the piles from the surf and piled them on the beach. A pile driver was then constructed on the site, and powered by the same donkey engine, proceeded with the work. The city hired an inspector to check on the work and he was right on the job every minute of the working day watching the placement of every pile and every stick of timber. The work proceeded very smoothly and in a short time the city owned the fine wharf that is still being used today.

The wharf's present use is not that originally intended. A line of track was laid to the warehouse which had been constructed at the end of the wharf, and the Pacific Steamship Line (the Admiral Line) started regular service to Santa Cruz

with their steamer "Roanoke." The steamship sent their agent, Al G. Finn, to Santa Cruz to take care of their interest. Finn was a very likable young man and soon became quite popular with the businessmen of the community. The steamship business did not last, the Roanoke sank in a storm and was not replaced by another ship, and the S.P. again got all of the local traffic. I do not know whether the railroad company ever made any concessions in the way of improved service or lower rates. Finn started a Real Estate and Insurance business, married a Santa Cruz girl named Gardner, and lived in Santa Cruz the remainder of his life. The business he established is still carried on under the name of Finn & Finn, headed by his son A. Gardner Finn.

In the years immediately preceding the construction of the municipal wharf, shipping over the railroad wharf had almost come to a standstill. Over the years a fishing industry of considerable importance had become established in Santa Cruz. The fishermen moored their boats at the wharf and built shacks on the wharf for storing their gear, mending their equipment, et cetera. There was enough of this business to warrant retention of the old wharf until the new municipal wharf was completed. Then all of the fishermen moved to the new wharf and there was no further reason to keep the old one and it was soon torn down. With the shipping gone, the municipal wharf was supported by rentals from the fishing industry. Sometime later the pilchards

(a type of sardine) disappeared from Monterey Bay and reduced the fishing industry on both sides of the bay to almost nothing, but a new industry, tourism, took over and saved the wharf. It is one of the very few wharves in the state open to public automobile traffic, and the motoring public takes advantage of it to the extent that on average weekends it is difficult to find a parking space and cars move along the wharf bumper to bumper at such a slow rate that a person on foot can make better time. There are two fish markets, several restaurants, specialty shops, boat sales and rental agencies and other businesses catering to the many wharf patrons, and the State Division of Beaches and Parks has fixed up the last 200 or 300 feet for a free public fishing area. This area is well patronized at almost any time, day or night.

The Pleasure Pier

I might mention one more pier that was in place for some fifty to sixty years. This was called the Pleasure Pier, a comparatively short structure running out from the casino. It was built in the early 1900s but by the early 1960s had been so weakened by age and heavy storms that it was considered too dangerous to use, and was torn down. No cargo was ever

handled over this pier. During most of its life it had a small boat landing for excursions around the bay and was used as a liberty boat landing on the rare occasions when there was a ship of the United States Navy in the bay. The only building ever put on the pier was a small one not much bigger than a telephone booth where tickets were sold for the excursion boats.

In the days of electric streetcars it was necessary to provide direct current electricity for their operation. The power house for this purpose was situated across the tracks from the casino. Cooling water was required for the power house. The water was pumped from the bay through a pipe line under the deck of the pleasure pier. The water picked up a considerable amount of heat in the power house and was returned to the bay, but on its return trip it was dumped into the swimming pool in the casino, an arrangement which made it unnecessary to build a heating plant for the water in the pool. The streetcar system went out of business and the power house was torn down long before the swimming pool was filled and turned into a miniature golf course. I suppose there must have been a water heater set up for the swimming pool water but I do not know where it was located.

One more use for the pleasure pier was as a place for setting off the 4th of July display of fireworks.

The Santa Cruz Streetcar System

Page 156 of the book shows three photos of horsecars of the East Santa Cruz R.R. One of the earliest memories of my rare trips from Felton to Santa Cruz was seeing these horsecars. This was some time before 1903. The East Side Line started from what we called the Lower Plaza, near the present post office building (the upper plaza was the park at the top of Mission Hill, between Mission Street and the Holy Cross Church). The horsecar line ran along Front Street to Soquel Avenue. Before a disastrous fire in the early 1890s or possibly the late 1880s, Front Street was the main business street of the town. The present Pacific Avenue used to be called Willow Street. I do not know when the name was changed. It was long before my time. But to get back to the horsecars -- the line crossed the river at Soquel Avenue and proceeded along that street to the top of the hill at Arana Gulch, approximately where the Al Cheney Ford Agency now stands. There may have been at some time a horsecar line serving the west side of the city, but if so I have never heard it mentioned. Of course there were other locations that had been served by horsecars, but they were gone before my time.

The bottom picture page 143 shows a horsecar at the land end of the railroad wharf. This confirms my belief that the East Side Line was not the only line in Santa Cruz. I have no idea as to the destination or route of the car shown in this

picture.

During the final period of horsecar operation the city also had an electric trolley line. This started at the beach near the casino, ran along the Esplanade to the wharf, then along Pacific Avenue to Mission Street, out Mission to Younglove, along Younglove to Garfield Park Church, then down Garfield Avenue to the cliffs at Vue de l'Eau, which the townspeople in their ignorance of French pronunciation usually called View de Lew. The two photos on page 157 show the two terminals of the electric line, the lower photo, from the legend "Tent City Office" across the street I take to be at what is now the corner of Beach Street and Cliff Street, the Tent City office being between the S.P. tracks and the present Casa del Rey Hotel. The sign "Bedell Only" meant that the car did not go all the way to the end of the line at Vue de l'Eau, but only as far as the Bedell, a hotel which was on Mission Street between Walnut Avenue and Otis Street. On the opposite side of Mission Street and a little nearer to town, on part of the property where the Mission Hill School now stands was another hotel or boarding house called the Pope House. The trolley line to the West Cliffs (Vue de l'Eau) also passed along Mission Street, so the "Bedell Only" car provided more frequent service to these two hotels and to the residents of lower Mission Street than would be the case if only the Vue de l'Eau cars were available.

This electric line was operated by Union Traction Company.

In the early 1900s another electric line was built. It also started at the casino and ran along the Esplanade to the wharf, then along what is now Washington Street to Center Street, than along Center Street to Lincoln Street, along Lincoln Street to Pacific Avenue, where it crossed over to Soquel Avenue, then out Soquel Avenue to Cayuga Street, where it turned toward Seabright. From Seabright it went to Capitola via Twin Lakes. The horsecar line went out of business when this new electric line was built. The Union Traction Company and the new line operated separately for a time. This meant three lines of track along the Esplanade -- two trolley lines and the S.P. tracks. At some time the people of Santa Cruz allowed a weak-minded city council to change the musical sounding name "The Esplanade" to the prosaic Beach Street. Ugh!! In these days we would grow beards, put on our dirtiest and most worn clothes and demonstrate, directing a vocabulary of four-letter words at City Hall.

After a few years of operation the Union Traction Company took over the Capitola Line. After this merger, the Capitola Line tracks from the casino to Soquel Avenue were removed as that area was adequately served by the original Pacific Avenue route of the Union Traction. Thereafter the service to Capitola originated at Soquel Avenue and Pacific.

Later a new line was built by Union Traction Company from the post office out Water Street to Morrissey, then out Morrissey to DeLaveaga Park. The photo on page 158 shows one of the cars at the Capitola terminal, but there is no way of knowing whether the photo was taken before or after the Union Traction took over.

The lower picture on page 158 shows a Traction Company work train on a bridge. It is my guess that this picture was at the Water Street crossing of the San Lorenzo during the construction of the Water Street-DeLaveaga Park branch of the Union Traction Company. Note that in the picture there are teams on the roadway below the bridge. That seems to be a temporary crossing during the usual summer period of low water. The wagon bridge beside the traction bridge seems to be in a state of chaos. I mentioned above that some of the concrete piles which had been stored at the beach for a proposed cement company wharf had been used for a bridge across the river at Water Street. This is doubtless the bridge project where those piles were used. The time and place seem to fit in very nicely with this supposition.

Nowdays people do not want to walk a few blocks to board a streetcar, nor do they want to walk any distance to their destination after they get off. Furthermore, they want to go and come at a time of their own choice, not being bound by a

streetcar schedule. For these reasons the traction company loses patronage and revenue. The company then tries to make up the lost revenue by increasing fares. The fare increase causes more people to use their automobiles, losing more patronage. Lack of patronage causes less frequent scheduling even taking some areas out of service entirely. This refusal of people to walk a few blocks to their work or to the markets is the cause of most of the heavy traffic on our streets and highways. People would rather drive extra miles to a store a few steps away from their parking place than do a little extra walking. This has resulted in complete loss of public transportation in some places and very inadequate service in others. So the streetcars passed out of the picture many years ago and the few buses that have replaced them cannot operate without public subsidies.

Paradise Park Property

I had always thought that the switch-backed line up the hill from the lower powder mill flat to the railroad company's main line and the property upon which the line was built belonged to the powder company. This belief was strengthened by the fact that there were two structures on the line used by the powder company. One was a small brick magazine and the other quite a large nitrate of soda warehouse. Hercules Powder

Company, the last successor to the original California Powder Works, discontinued operations in 1915 but held ownership to the land for several years. Eventually the land was acquired by a group of members of the Masonic Lodge and became known as Paradise Park. However, the Paradise Park property does not include anything west of the present State Highway 9. This highway is in exactly the same location as the old county road of 1915 and earlier. I always wondered why the transfer of property did not include the property upon which the railroad ran up the hill, since it did include everything else the powder company owned, even the two large houses on the top of the hill which Paradise Park is still unable to use. Now I think the statement on page 130 of the book that the railroad company had built the connection between their main line and the powder company tracks in the flats below answers my question -- that is, the powder company never did own this track although they did use it and maintain it. The two houses that I mentioned as having been on this line must have been built by agreement with the railroad company. There are now a few residences on this property, but they are of quite recent construction, so if my new supposition that the property was owned by the railroad company is correct, it must have been disposed of quite recently.

Explosions at the Powder Works

In addition to the section on the subject of the railroad connection between the railroad main line and the powder mill transportation system there's a paragraph on page 130 which deals with the possibility that sparks from locomotives may have caused one or more powder mill explosions. The most serious explosion in the history of the Santa Cruz plant was referred to on page 163 as the "1898 holocaust." There is some disagreement as to the number of lives lost in that "holocaust" but it is generally supposed to have been thirteen. The site of the 1898 explosion was so far from the railroad, and a hill intervened, so there is not the remotest chance that a locomotive caused that one. Incidentally the photo shown in the book was not the 1898 accident, but one that happened approximately ten years later when a black powder press house blew up killing two men. The press is the piece of equipment shown in the wreckage in the center of the picture. The several pieces of square metal shown in the picture on both sides of the fence were aluminum press plates approximately two feet square and probably half an inch thick. These were scattered over quite a wide area. I remember this explosion well as I was living at the powder works village at the time and was outside the house when the huge pillar of black smoke mixed with pieces of wreckage rose

high into the air. I personally knew Tom Kearney and Bill Manseau, the two victims. Tom Kearney had several children, some of whom I went to school with. Bill Monseau was not married. He was the only boy in a family in which there were several girls. Only one of the girls married. She was the wife of George S. Tait, Sr. George once told me that before he took the girl out on their first date the old father asked George what his intentions were. The father is shown in the picture of the charcoal kilns in the book "In the Beginning" compiled by Thomas L. and Alice M. Reedy, published by The Paradise Park Masonic Club.

The interesting picture at the top of page 162 was a smokeless powder operation. Here smokeless powder of a dough-like consistency was extruded through presses into rods ranging in diameter from about 1/8 inch up to 3/4 inch. The rods of powder were then cut to the required lengths -- the smaller the diameter the shorter the length. The barrels were not the final shipping containers, but merely for getting the powder to the next operation, the dry house. The relaxed appearance of the men was natural as this was not considered a dangerous operation. In fact the danger of an accident was considered so remote that two huge dry houses were built right in the village and the doors were not even locked to keep us youngsters from snooping around inside when the buildings were unattended.

The picture of the corning mill on page 162 is a real puzzler. As the word "corning" implies, it was the function of this mill to grind the powder to the final grain sizes. The picture shows three pairs of geared wheels set in a vertical row and another pair off to the right behind the lower belted pulley. Each of the geared wheels was attached to a grooved roller. The powder was ground by passing it between revolving pairs of rollers. The rollers were made of a non-sparking metal such as brass or bronze. The building obviously was not in operating condition when the photo was taken. Note the roof open to the sky, a set of pulleys on the left side without a connecting belt, and the general state of sloppy housekeeping. Of course everything connected with black powder is dirty and this is evident in the picture. If it were a new building just being completed, it would not yet be dirty. If it had been the victim of an explosion or fire, the damage would have been much greater than the picture shows. So I suppose the reason for the disordered condition of the building and its contents will never be known. It might be that this building was in the process of being torn down to be replaced by more modern equipment.

Safety Precautions

Note the wooden shovel on the floor. No metal shovel was allowed around powder on account of the danger of causing a spark, so we used to buy dozens of wooden shovels at a time. During the time I was connected with the explosives industry, nothing was allowed within the building except what was essential to its operation. The few hand tools that were required all had their specific places when not in use. The workers wore special clothing with no pockets so that no foreign material could be brought in. There was an imitation pocket made of narrow strips of cloth which made it possible to carry a handkerchief but other objects would fall through. Buttons were made of leather or plastic, no metal allowed. Shoelace tips were stiffened with wax or some other kind of hardening material. There were no metal eyelets to reinforce the holes the laces went through. Leather soles were permitted, but had to be sewn on or fastened with wooden pegs or brass nails. Wood was used as much as possible in the powder machinery, but where wood could not be used, some type of non-sparking metal was used such as brass, bronze, copper, or aluminum.

Tunnels

On page 137 of the book there is an account written by

an unknown or at least an unnamed author passenger describing a trip on the narrow gauge through the Santa Cruz Mountains in 1896. Incidental in the account there are eight tunnels. I know of only six.

#1 Between Wrights and Laurel

#2 Between Laurel and Glenwood

#3 Between Glenwood and Olympia

#4 Between Felton Junction and Rincon

#5 Between Rincon and the point where the railroad crosses
Highway 9

#6 Beneath Mission Hill in Santa Cruz

I never saw #5, but I have heard my father mention it. It was replaced by a cut. The boundary line between Henry Cowell Redwood State Park and the Paradise Park property crosses this cut. There used to be a road from the highway down into Powder Works property. I have heard my father say that he used to haul wood over this road into the powder works. Some traces of the road still remain.

The article referred to above designates as #4 the tunnel I have shown as #3. The article also mentions three tunnels between Felton and the tunnel which I have designated as #6. I know of only two, numbers 4 and 5 on my list.

On page 138 Mr. MacGregor mentions that the tunnel under

Mission Hill still bears the narrow gauge numeral six which agrees with my list on the previous page. Either the writer of the article quoted in the book did not count correctly, or two other tunnels were replaced by cuts as was number 5. I can remember a wooden wagon bridge over the cut where #5 tunnel had been. This bridge has been gone many years. It may have been a temporary structure built as part of a logging operation. The road into the powder works that I mentioned was abandoned for vehicular traffic long before my time, although I walked over it many times.

Park Street Station

The caption under the pictures on page 142 is confusing in that it refers to "the covered depot near the beach." There have been two passenger stations in Santa Cruz -- one, the Park Street Station near the lower portal of the tunnel under Mission Hill, and the other, which is still standing, at the foot of Chestnut Street near the beach. It was the main station for many years.

The photos on page 142 show the old Park Street Station in Santa Cruz. The station house and tracks leading to it in the upper photo were in the approximate location of the present Goodwill Industries retail store and parking lot.

The photos at the top and bottom do not show the same

building, the one at the bottom being much closer to the tunnel portal. If the building in the lower picture was standing when the upper photo was taken it was either hidden behind the trees in the left foreground, or was beyond the range of the camera. Note the wagonload of bagged material at lower left of the upper picture and the car partly hidden in the trees. The track to the tunnel would be the first one beyond the siding where the car was.

It is my guess that the Park Street Station accommodated only passenger mail, baggage, and express, as the facilities seem to be inadequate to handle the quantity of freight that passed in and out of Santa Cruz. When my mother, at age 11, and her family arrived in Santa Cruz in 1887, they got off the train at Park Street. The house in which they spent their first night in Santa Cruz is still standing on Locust Street next to the parking lot of the new City Hall Annex.

In the years I went to the Mission Hill Grammar School and Santa Cruz High School between 1906 and 1914 there were no railroad company buildings in the Park Street area, but there was a board lettered with the words "Park Street" mounted on a post near the tracks. It was then a flag stop used by the Santa Cruz High School students who commuted from their homes in the San Lorenzo Valley.

No doubt the greater portion of the freight shipments

were then as now handled in the yards adjacent to the present depot. To the west of the passenger station there used to be a freight depot consisting of offices and warehouse space, also a roundhouse and turntable nearby.

Railroad Work Gangs

The handcar on page 152 reminds me of these vehicles used by the section hands. The section crew usually consisted of four or five section hands and a section boss, the latter invariably being an Irishman. The working gang were Irish or Italians. The boss never touched a tool, and when the gang went to and from their work the handles of the car were pumped up and down by the workers while the boss sat regally with his arms folded and his legs dangling over the edge of the car. Nowadays the swarthy-faced section hands are called Maintenance-of-Way Crews and they ride in covered auto trucks with seats running lengthwise. For some reason there is a sign over the steps to the truck reading "Salida," meaning "Exit." I suppose they know instinctively where to enter but the peculiar thing is that the "Salida" sign can be read only from the outside.

Hoisting Machinery

The tracing out of a piece of machinery is interesting.

On page 169 we have a photograph of the hoisting machinery of the New Almaden Mine. The prime mover is a one-cylinder steam engine to which the steam is piped from a boiler too far away to show in the picture. The very heavy flywheel is necessary to smooth out the uneven thrusts of the one-cylinder engine. An engine with several cylinders can operate smoothly with a much smaller flywheel, as the cranks of the several cylinders are so arranged that when one is in dead center the other or others are in a power stroke. With a one-cylinder engine the operator must be careful not to let his engine come to a stop with the crank at dead center, otherwise the engine could not be restarted until by some method the machine could be moved by some outside means to get the crank in such a position as to permit a power stroke from the piston. In the machine illustrated, the shaft to which the crank and flywheel were attached must have been extended far enough over to engage the large cogs shown on the hoist drums by means of small pinion. The brakes on the drums look extraordinarily massive. The source of power and linkage that operated the brakes are not shown, but my guess, based on what seems to be a steam line running from the left side of the building to the top of the hoist, is that the brakes were powered by a steam cylinder. Of course the source of power could have been compressed air or hydraulic, but the pipe seems to have had an insulating

covering, indicating steam power. I do not believe that an installation of this kind could have been operated by remote control, so an operator would have been required. This would make some type of signal system necessary to let the operator know when and where to move the hoist cages.

Miscellaneous Comments

Page 152. This bridge was built about 1908. The bridge is no longer there, but the two massive concrete piers are still there.

Page 153. Engine 13 was always my favorite. I saw her many times when she seemed to be able to walk away with heavier loads than any other engine could pull -- at least that was my impression. It now seems peculiar that a person could have a favorite among inanimate pieces of machinery, but that is the way I felt in my pre-teen days.

Page 161. The photo captioned "The jumbled plant of the California Powder Works." Smokeless powder was made in this area.

Page 174. Big Trees Bridge. I remember this very long bridge below the Big Trees. When the road was converted over to broad gauge most of the trestlework shown was superseded by a fill. The new steel bridge, which was placed directly over the stream, was very similar to the Felton bridge shown on page

152.

Page 194. Sam Dunn. I knew Sam slightly. At the time I knew him, between 1906 and 1910, Sam was employed by the powder company. Once in discussing Sam my father told me about the wreck, which was substantially the same as related in the book. I do not know whether Sam was injured in the wreck or how he got out without being recognized. The book says he was new on the run, so perhaps he was not well known to other workers in the vicinity. At any rate, fearing a lynch mob or punishment by law, he quickly disappeared. In discussing the case recently with Fred Reynolds I learned that Sam spent the next ten years in South America. He then assumed that the affair would have blown over and that it would be safe to return home. I never knew whether he had a family. After his return he went by his own name and was willing to admit his involvement. Fred Reynolds said that as fellow engineers they had freely discussed the circumstances. I remember Sam as a rather small man, very quiet, mild, and inoffensive looking.

Page 195. Story of Fred Reynolds and the wreck due to brake failure. Fred said that the wreck occurred just as described, with one important exception. Fred was not the engineer involved. Fred was hired as an engine wiper in 1895 at the age of twenty, and he could not possibly have built up enough seniority to have been engineer on an express passenger at any

time during the 1890s.

Page 206. Engine with powder works in background. Trees have since grown so thick and large that such a photo would now be impossible. The wagon road used to curve back and forth under the trestle, but now there is a bridge that keeps the highway on the powder works side of the trestle. The large house shown in the background of the lower picture on this page is still standing, and is in good condition. It was the Lynch home. The Lynch family owned all of the land between the railroad property and Bay Street. This is one of the oldest houses in Santa Cruz and can be seen in many old pictures of the beach area.

Page 207. Decorated presidential trains. Once when traveling along River Street in a buggy I saw a gaily decorated train about to enter the tunnel under Mission Hill. When I expressed my wonder at the sight of so much decoration my mother told me that the President of the United States was aboard. This could not have been either of the trains pictured as the incident I referred to was between 1892 and 1904. It must have been President McKinley's train that I saw.

Page 226. Quoting from Column 2 of this page: " -- and by the 19th of the month, broad gauge trains would restore service along the entire length of the original narrow gauge route." The month referred to was April, 1906. The statement in the quotation is not true. At that time the Santa Cruz end was not

broad gauged. At that time Fred Reynolds was engineer on a freight train running between Santa Cruz and Almaden. He left Santa Cruz on this narrow gauge run on Mondays, Wednesdays, and Fridays and returned on the following days. The 18th, the day of the earthquake he was scheduled to make his usual trip. He was to use engine #10, which is contrary to the statement in the book that at this time Baldwins #4, #10, and #13 sat cold on the San Jose rip track awaiting reassignment to the Owens Valley and North Shore. On the 18th, the day of the earthquake, no trains moved between Santa Cruz and San Jose.. There being no work on the railroad that day Fred had the day off. He and his wife (who was my cousin) and a few other grown-ups went skating at the Casino in spite of the dire prediction that a tidal wave was imminent. I was invited and went to the skating party.

As soon as some order came out of the chaos, Fred said that his next assignment with #10 was to service a work crew who were engaged in enlarging the tunnel between Felton and Glenwood for broad gauge operation. None of the bridges or tunnels between Santa Cruz and Boulder Creek were damaged. If these facilities had been ready for broad gauge service on April 19, the service could have been started immediately. On the contrary, narrow gauge service to San Lorenzo Valley points continued for some time after the earthquake, but broad gauge service was started before the line was reopened

to Los Gatos in 1908. A photo of the engine used for the first commercial run of broad gauge service in the San Lorenzo Valley appears in the book "In the Beginning" referred to previously.

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