

Report on
Rock Creek Fire
July 28, 1939
Santa Rosa Division
Toiyabe National Forest
Nevada
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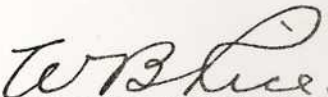
Submitted August 7, 1939 by
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Approved August 7, 1939 by
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The following report is based on an investigation which began on the morning of July 30 and continued until the evening of August 2, 4 full days. During this time I visited the scene of the fire on two different occasions, attended the coroner's inquest, took stenographic testimony from all surviving members of the ill fated crew, interviewed numerous other persons and collected all possible information which might have a bearing on the case.

Under circumstances such as surrounded the Rock Creek fire men are necessarily excited. Events succeed each other with such rapidity that it is almost humanly impossible to remember all of the details, and it is improbable that any two men would remember them in exactly the same way. Considering these human frailties, I believe that the evidence on which this report is based is singularly free from discrepancies or contradictions of a material nature. Every effort has been made to obtain all of the information possible and to assemble it in such a manner as to give a clear picture of the sequence of events which lead up to the tragic death of five enrollees from the Paradise Camp.

Where testimony or evidence is apparently in conflict, the statements in the body of the report are based on the preponderance of evidence, reliability of witnesses, and on what seemed most probable. Full weight has, of course, been given to evidence obtained on the ground.


Associate Regional Forester.

Foreword

On the afternoon of July 23, 1939, five enrollees from Paradise Camp F-5, Company 1212, were burned to death in a sagebrush fire which originated on the west side of the Santa Rosa Division of the Toiyabe National Forest in Humboldt County, Nevada, near the town of Orovada and about 50 miles north of Winnemucca.

This marks the first time in the history of Region 4 that anyone has lost his life fighting a sagebrush fire, and so far as could be learned, after inquiries among a number of old time residents of Nevada, is possibly the first time that anyone has lost his life in the State of Nevada while engaged in fighting fires of this kind. Mr. Headley, Chief of Fire Control of the Forest Service, who is intimately familiar with Forest Service fire history over a period of more than thirty years, is unable to recall any instance anywhere of loss of life in sagebrush fires.

While many lives have been lost fighting forest fires and will continue to be lost so long as we continue to fight fires, there is little probability that the conditions surrounding this particular fire, including the uncanny timing and personal injuries, will ever be duplicated.

Nevada is typically a state of mountains and deserts. North and south ranges of mountains, ten to twenty miles wide, are separated by level valleys of equal or greater width. These mountain ranges generally rise abruptly from the valley floor and attain elevations of a mile or more above the surrounding deserts.

The Rock Creek fire occurred in country typical of this general formation. From the valley floor at Orovada on Nevada Highway #8,

at an elevation of 4,350 feet, the flat desert land extends eastward for approximately a mile and a half. At this point the Santa Rosa Mountains begin to rise gradually and finally rather abruptly to Santa Rosa Peak with an elevation of 9,800 feet. This rise of 5,450 feet occurs in a distance of approximately 6 miles. Rock Creek and Antelope Creek flow westward from Santa Rosa Peak toward Quinn River and enter the valley through rather steep-sided canyons. As is characteristic of such topography, the ridge between these two creeks breaks off abruptly toward the valley, and the origin of the Rock Creek fire was near the top of this break and somewhere between 3,500 and 4,000 feet above the valley floor.

On the burned over area the cover consisted principally of sagebrush with a mixture of cheat grass, rye grass, and weeds. With the exception of two or three very small patches of trees in basins at the higher elevations, there was no timber on the area burned, and these small patches of trees had no significance in the handling of the fire or in the events which lead up to its tragic conclusion.

The sagebrush varied in height from one to two feet on the valley floor to three or four feet in height at the higher elevations. Density could be called normal for that part of the country, which would mean that particularly at the higher elevations the brush was thick enough on the ground to materially impede foot travel.

Slopes varied at the lower elevations from 30 to 50 percent and at the higher elevations near the ridge tops probably reached 60 or 70 percent. The country could be called moderately steep but not precipitous. There are rock out-crops here and there and a moderate amount of rock scattered over the area, particularly at the bottoms of the draws.

In general, an experienced man would not consider it difficult country for horse travel.

From May 1 to July 28, the date of occurrence of the fire, total precipitation at Grovada was 1.37 inches, which is about three-fourths of an inch, or approximately 35 percent less than normal, indicating an extremely dry condition of the ground cover. Records of relative humidity were not available.

Report on Rock Creek Fire on July 28, 1939.

A dry lightning storm passed over the Santa Rosa Mountains and started a fire within the boundaries of the Santa Rosa Division of the Toiyabe National Forest, Nevada, in approximately the southeast quarter of the northwest quarter of the northwest quarter, Section 5, Township 42 North, Range 38 East, Mt. Diabalo Base and Meridian. This probably occurred at about 11:20 or 11:25 a.m., on July 28, 1939. The fact that the bolt of lightning which set the fire was accompanied by an unusually severe clap of thunder attracted the notice of people in the vicinity and caused immediate discovery of the fire.

K. O. Studebaker, a storekeeper at Orovada, looked out toward the storm and saw the fire starting up. Children of Frank Gabica, a nearby rancher, saw the fire start and called it to the attention of their father.

Studebaker immediately called the ranger station at Paradise, Nevada, about 45 miles away, and notified Mrs. Travis, wife of the district ranger, of the fire. According to records of the telephone company this call was put in at 11:28 a.m. Studebaker then called Gabica and they talked matters over and finally decided that they would go up to the fire themselves as soon as they had their lunch. Headquarters for one of the state road maintenance crews is across the road from the Orovada store, and about noon two of the maintenance crew came in for lunch. After lunch Studebaker took his brother and these two men from the road maintenance crew and travelled by car up Antelope Creek to the end of the road where they left the car and continued on foot along the ridge on the north side of Antelope Creek.

Studebaker stated that they probably left Orovada about 12:30 p.m.

Frank Gabica and two boys left his ranch on horseback at about the same time, going up Rock Creek and taking the McConnel Creek Trail from the end of the road. These two crews met just below the fire and continued on to the fire together. The fire had probably attained a size of between 20 and 25 acres when these seven men reached the line. The time of arrival at the fire is not definitely known, but was probably between 1:30 and 2:00 o'clock. It will be noted from the map that between three and four miles had to be covered by car, two-thirds of it over a slow road. About 1 1/4 miles had to be made on foot uphill over fairly steep ground, so that it is probable that at least one hour was consumed in travelling and possibly more since the men were not hardened hikers.

All of these seven men had shovels and they proceeded to dirt down the fire, working according to their own estimates about an hour, and succeeded in putting out approximately 200 yards of line. While they were working they saw the CCC truck coming up the highway and up Rock Creek toward the fire. Later Tippin's crew was seen walking toward the fire and were still continuing upward at the time of the blow-up. At this time it appears that the boys were in a draw between Rock Creek and Antelope Creek and were not immediately aware of the fact that the fire had gotten out of control, since they were at a point where they could not look directly at the fire and they were too far away for any of Studebaker's men to be warned by them. Up to this time the testimony of most witnesses, both local men and CCC boys, is to the effect that there was a very light breeze blowing from the southwest. This is the direction of the prevailing winds and would

also be the direction of the normal up-canyon air movement for that time of day, and as a consequence the fire was spreading gradually toward the north and east with very little spread toward the west and south.

At about 3:00 o'clock the wind suddenly changed, blew from the east, and assumed what Studebaker described as gale proportions. The fire immediately began to run down the mountain at a high rate of speed which probably averaged 4 to 4 1/2 miles per hour and was undoubtedly much faster on portions of the area where conditions were most favorable for its spread. The seven local men on the fire line were in no immediate danger since they could have easily gotten within the burned area. They were fully aware of this but Studebaker was worried about his car and Gabica about his ranch, and the men all decided to go out ahead of the fire in order to save their property. Needless to say, they anticipated no particular difficulty in keeping ahead of the fire. As stated above, three men were on horseback and four on foot, and Studebaker who was on foot part of the time testified that they had to run as fast as they could to keep ahead of the fire and only beat it to the car by a narrow margin which they estimated from 150 to 200 feet. When the seven men reached the car Gabica, who is a heavy man and was riding a tired horse, was afraid to risk keeping ahead of the fire and turned his horse loose and got in the car with the three other men. (The horse that was turned loose later arrived at the ranch with his fetlocks and half of his tail burned off.) Studebaker drove the car as fast as he could over the rough Antelope Creek road and reached the highway about five minutes ahead of the fire. The two Gabica boys on horseback attempted to go around

the head of the fire in order to reach their ranch, but were unable to make it and had to take straight to the highway. From the best estimates that can be obtained it appears that about 30 to 45 minutes elapsed from the time the fire blew up until it reached the highway, an airline distance of about three miles.

As soon as he reached Orvada, Studebaker put in a call to the Paradise Camp for reinforcements and also called the Quinn River and McDermitt Camps of the Division of Grazing. A check of the records of the telephone company show these calls as being placed at 3:50 p.m.

When Studebaker called the Paradise Ranger Station, Ranger Travis was out on his district and Mrs. Travis sent her son over to the Paradise CCC Camp, about a hundred yards distant, to notify them of the fire. The Travis boy reported the fire to L. M. Malsbury, the enrollee camp clerk for the work agency. Malsbury stated that the report came to him about 11:45 a.m. Since it was nearly lunch time the only immediate action taken by Malsbury was to endeavor to get the cooks to hurry up lunch so that the men could be fed before starting to the fire. Camp Mechanic Timmons who was the only one of the work agency overhead in camp had gone home to lunch about two blocks away before the fire call was received. (Two other foremen had crews out on work projects and did not come in to lunch. Camp Superintendent Hardy was at a spike camp where more than 50 enrollees and the balance of the overhead were working and did not return to the main camp until evening. There were 62 new replacements in the main camp who had not yet been released to the work agency.) According to statements made by Timmons it was his usual custom to go home to lunch between 11:30 and 11:45. Apparently no further action was taken beyond attempting

to get the men fed until Timmons returned to the camp after lunch, at which time Malsbury reported the fire to him. According to Malsbury this was about 12:20 p.m. and according to Timmons about 12:30 p.m.

With the exception of the 62 new replacements who came in on July 25 and had not yet had fire training nor been turned over to the work agency by the Army, there were very few available men in camp. In addition to the Army overhead there were a few men working in the blacksmith shop and garage and a few working on a new lavatory at the work agency headquarters.

As soon as he received the fire report Timmons started immediately to round up a crew, truck, and fire tools. Since he was unable to obtain enough men to fill a truck from fire-trained work agency men at the camp, he requested permission from Lt. Ford, the Acting Camp Commander, to take a part of the presumably fire-trained kitchen crew and received his consent. Timmons stated that he refused to take any of the new replacements since he knew that they had not been fire-trained.

The names of all men who were selected for fire duty were written down by Camp Clerk Malsbury, and after the boys were loaded on the truck Timmons again checked the number against the camp clerk's list by having the boys call off in numerical order. The number called off checked with the number on the camp clerk's list and resulted in very positive statements which appear in the testimony that there were 22 enrollees on the truck. Later it was determined that there were actually 24 enrollees on the truck. This has no particular bearing on the case, but the reason for the discrepancy

is explained in Section 2 of the Appendix. This truck load of men pulled out for the fire at about 12:45 p.m.

They travelled for a distance of about 45 miles and arrived at the end of the Rock Creek road sometime between 2:00 and 2:30 p.m. While travelling along the main highway, Nevada #8, just before reaching Crovada a full view was obtained of the fire. Timmons could see horses at the edge of the fire and could see that part of the line was dead and knew that there were men already up there and working on the southwesterly side. The truck was run into a draw at the end of Rock Creek road and partly turned around. The men were unloaded and Timmons counted out 11 men and put them in charge of Assistant Leader Earnest Tippin, making 12 in all in this crew.

The men in Tippin's crew were as follows:

1. Richard Abaussleman - Army K.P.
 2. Frank W. Barker - Army K.P.
 3. Walter James - F.S.
 4. George J. Kennedy - F.S.
 5. Richard Powers - Army K.P.
 6. Chester Romanouski - F.S.
 7. Frank Solar - F.S.
 8. John Stromick - F.S.
 9. Earnest R. Tippin - F.S.
 10. Alexander Varga - F.S.
 11. Frank J. Vitale - Army K.P.
 12. Myron Wolansky - F.S.
- (All proven to have had fire training.)

Timmons started out with the following enrollees, in addition to himself:

1. Baptiste Annette - F.S.
2. Salvatore Blando - F.S.
3. Edward Carroll - Army K.P.
4. John Fasano - F.S.
5. Benjamin Grimshaw - F.S.
6. Paul Kinn - F.S.
7. Charles Nelson - F.S.
8. John Petrasek - F.S.

9. Edward Phelps - F.S.
 10. Stanley Sadowski - F.S.
 11. Frank Tucceri - F.S.
 12. Joseph Wilson - F.S.
- (All but Edward Carroll proven to have had fire training.)

Timmons had fought fire in Rock Creek two years previously and Tippin had been there on fishing trips, so that both men were familiar with the country. Timmons therefore dispatched Tippin and his crew toward the fire over the McConnel Creek Trail, instructing him to begin work on the southwest corner. Timmons gave a number of reasons for taking this action.

1. At that time the fire was spreading fastest toward the north and Timmons considered this the most dangerous part of the fire and planned to take that sector himself.

2. Tippin's crew would have the easiest travel (although possibly the longest route), being able to accomplish most of the journey over the McConnel Creek Trail which is a fairly good horse trail. The route which Timmons would have to take with his crew would involve travelling over country after the first half mile having no trails and quite steep and rocky.

3. Tippin's crew was headed toward a sector of the fire where men were already working and a portion of the line extinguished. Timmons took his crew, which he believed included ten men besides himself, and started toward the north side of the fire. They immediately left the McConnel Creek Trail and climbed out on some low ridges to the north in order to be able to get a better view of the fire as they approached. About three-quarters of a mile from the truck they crossed to the south side of Rock Creek and began the ascent to the fire over steep, rocky country.

About this time Timmons got uneasy about leaving the truck unguarded in the sagebrush and sent John Petrasek back to move it to the Gabica ranch where it would be safe. In turning the truck around the boy got it bogged down in an irrigation ditch and abandoned the truck and walked on down to the ranch. The truck caught fire later and burned about one-third of the underslung spare tire and about one-fourth of the floor boards over the spare tire.

When they had approached to within a quarter of a mile of the fire they saw it coming toward them very rapidly and retreated down the hill around the point of a ridge and into some rock ledges until the danger of being trapped had passed.

Just before starting the retreat Timmons had sent Paul Kinn back to the creek for water. Two other boys, Charles Nelson and Frank Tucceri, who were quite a little in the rear saw the main crew start to run and they ran back to the creek. They met the water boy and the three of them climbed up into the rocks on the north side of Rock Creek and did not again return to the fire. Timmons missed the water boy but assumed that he had become frightened and gone on down the creek to the Gabica ranch. He did not miss the other two boys due to the mix-up in the count of men which is explained elsewhere.

While it appears in the evidence that the boys in Timmons' crew had to run to keep out of the way of the fire, it does not appear that they were in any great danger of being trapped. Some of the boys indicated that they were frightened for a little while and others did not seem to think that they were in any great danger.

The evidence seems to support Timmons' statement that he considered the north end of the fire the most dangerous since the first break appeared to be in that direction, and that it was not until after the fire had made its quick run to the north that the wind turned and carried the fire in a westerly direction.

As soon as the danger of being trapped in the fire had passed, Timmons put his crew to work on the northeast point of the fire and spent the balance of the day in control work with apparently no incidents of any importance. He stated that the smoke was so dense that he could not tell what was happening on other portions of the fire and that he was not at any time concerned about the safety of Tippin's crew. He continued control work with his crew until late in the evening and returned to the truck about 11:15 p.m. At that time, according to Timmons' statement, the east side of the fire was either out or was burning in ledges or had run to high green country where the spread had been checked. He was not aware of the difficulties of Tippin's crew until he met some men on the trail on his way back to the truck, and these men informed him about the missing men.

In the meantime, Tippin's crew advanced toward the fire over the McConnell Creek Trail which leaves Rock Creek about a half a mile above where the truck was parked and passes through a low saddle between Rock Creek and an unnamed dry wash. A short distance beyond the saddle the McConnell Creek Trail descends abruptly, and it appears that Tippin's crew left the trail at this point and climbed out on a ridge between two forks of the wash in order to be able to approach the fire along a route that would give them a better view of the fire

which they would not have had by following the trail. When they were about a quarter of a mile from the edge of the fire Tippin stopped his crew on the ridge at a small, rocky out-crop and gave his men a little talk on safety in approaching the fire and working the line. It was apparently about this time that the fire began to run toward them and Tippin gave the order to retreat, probably having in mind at that time not a full retreat but merely falling back and working around to the side of the fire. According to testimony, some of the boys started a headlong retreat and Tippin called to them to slow down and keep their heads and save their breath. Almost immediately Tippin looked back again and saw the fire approaching much more rapidly and gave the boys the order to run. It seems probable that Stromick and Varga continued on right from the first retreat order directly back to the truck over the same route by which they had come in, climbed into the ledges on the north side of Rock Creek above the Gabica ranch and remained there until evening.

Four other boys, Wolansky, Abaussleman, Romanouski, and Solar, who appeared to be next in the line of retreat, ran down the dry wash, climbed over a knoll to the west of the saddle through which they had approached the fire, and went directly down to the truck and from there on to the Gabica ranch. These boys testified that they had to run to keep ahead of the fire and were all badly scared. However, judging from the sequence of events, it is extremely doubtful that these four boys were ever in any great danger, since if the fire had been as close to them as their testimony indicates there would not have been sufficient time for the events which transpired, resulting in the death of five of the six boys who

were behind them. From this point on the testimony of Richard Powers seems to be the most reliable. Powers testified that almost immediately at the start of the retreat that Kennedy fell down and called for help. (Another boy who looked back thought Kennedy may have gone 15 or 20 feet before falling.) Tippin and James, who were just a few feet ahead of Kennedy, turned back. They picked Kennedy up, stripped him of water bags which he was carrying, put his arms over their shoulders, and started to carry him down the hill. This is the last time that any of these three boys were seen alive. Kennedy's body was found more than a quarter of a mile from the point where Tippin and James were seen to pick him up, and the assumption is that they carried him for this distance before the fire got so close that they were forced to drop him and run for their own lives. In the meantime, Powers, Barker, and Vitale were ahead of Tippin, James, and Kennedy. Powers' testimony states that Vitale kept going on his own pretty well, but that Barker seemed to have trouble and kept falling down. Powers kept Barker ahead of him and pushed him along. At one point Barker ran around a large clump of brush and Powers went directly through it, and the two boys had a head-on collision on the other side and both fell down and rolled together. Powers got up and told Barker to follow him but Barker did not keep up. Powers seemed to think that Barker was more scared than exhausted, and the testimony of other boys indicates that Barker was in good physical condition and was light on his feet. When Powers was some distance ahead Barker called for help, and he looked back and saw him on his knees in the draw where the two had fallen down. Powers stated, however, that the fire was so close that he did not dare go back. Powers and

Vitale went through the saddle above Rock Creek at about the same time with Powers about 100 feet below or west of Vitale. When the two boys went through the saddle Powers called to Vitale to follow him, but he either ignored him or did not hear. Powers stated, however, that he knew Vitale would make the creek and assumed that he would turn down the creek toward the ranch. Powers angled down the side of the hill to Rock Creek and stated that after he reached the creek he stopped running and walked the balance of the distance to the Gabica ranch with the fire not close enough to cause him any concern.

Vitale, however, did not turn down the creek but instead climbed out on a steep mountain north of the creek, apparently with the idea that he would get up to the ledges on Snapp Mountain and reach safety in that manner. This error in judgment on the part of Vitale cost him his life, since he had plenty of time to go down the creek and reach the Gabica ranch in safety. Rock Creek at this point and on down to the truck was two or three feet wide and possibly six inches deep, flowing through a barren wash 15 to 30 feet wide with sides 8 to 10 feet high. In one or two places there were holes of sufficient depth to completely cover a man's body, so that it is at least possible, if not probable, that a man could have survived in the creek while the fire passed over him. After crossing the creek Vitale continued for more than a quarter of a mile, an exhausting climb up the steep side of Snapp Mountain toward the ledges, but was unable to reach them before the fire overtook him. He was probably within two or three hundred yards of safety when overtaken. There is a question at this point whether Vitale was actually over-

taken by the fire while running or whether he fell from exhaustion some little time before the fire reached him. The testimony of Dr. Grover, who was the first to examine the body, was to the effect that he believed Vitale was unconscious at the time the fire passed over him.

Returning to the four boys who were still in the dry wash, as stated above, Kennedy's body was found more than a quarter of a mile below the point where Tippin and James were seen to pick him up. The point where Kennedy's body was found, according to testimony given by Powers on the ground, was not more than one or two hundred feet above the point where Barker was last seen on his knees in the wash. However, the bodies of Barker, Tippin, and James were found well up on the side of a knoll west of the saddle and about 300 yards from where Barker was last seen alive. Their bodies were found only a short distance, perhaps two or three hundred feet, from the edge of unburned area of considerable size which might have proved a safe haven had they reached it. There may be two explanations for the positions of the bodies of these three boys but absolute proof, of course, will never be possible.

1. That Tippin and James after being forced to drop Kennedy on account of the proximity of the flames encountered Barker a little farther down the wash and attempted to help him reach safety. Or it is possible that they saw Barker before dropping Kennedy, figured that they could not save both and that Barker was the best chance.

2. That Tippin and James saw Barker working his way along the side of the knoll toward Rock Creek and went up to him.

Their bodies were all found with four or five feet of each

other with the bodies of Barker and James falling away from the fire and the body of Tippin in the opposite direction facing toward the fire, which may or may not be significant. Dr. Grover testified that Tippin was the only one of the three boys that moved after the fire went over them and that this movement was toward the fire rather than away. He also testified that the position of Tippin's body seemed to indicate that he was going toward the fire when it passed over him, probably in a last attempt to assist Barker and James to safety.

It was brought out at the inquest on testimony of Dr. Grover that Kennedy's ankle had suffered a compound fracture, and from the testimony it appears that this fracture must have been received at the time Kennedy called for help at the very beginning of the retreat. One or two of the boys seemed to think that possibly Barker was also injured, which accounted for his stumbling and falling so much, but there was no evidence to that effect obtained by the doctor who examined him.

After the call for help had been placed by Studebaker at about 3:50 p.m., two truck loads of about 40 men from the Paradise Camp, in charge of Foreman Abeggan and Worthington, were the first to arrive. These men probably arrived at the fire at about 6:00 p.m. Foreman Abeggan stated that he got back to camp with his crew about three or four minutes after 4:00 o'clock, received the call, fed his men, and started to the fire. By the time they arrived it was known that there were missing men who had probably been trapped.

Searching parties were immediately organized and started out to look for bodies. The testimony of a number of the witnesses is

to the effect that the search could not have commenced sooner on account of the heat of the fire. Richard Powers, the only survivor of the last six men to start out, lead one searching party to the point where he had last seen Barker and discovered Kennedy's body. By that time it was getting too dark to continue the search farther, and four boys were left to guard Kennedy's body during the night since they had no means of removing it immediately. Early in the morning, probably about daylight, a stretcher and blankets were taken in and the boys started to remove the body. Dr. Grover was with the party. After they had gone a short distance down the draw they stopped to rest and in looking around discovered the bodies of Tippin, James, and Barker some distance up the side of the draw from where they were resting. These bodies were also removed as soon as possible. The balance of the day, Saturday, was spent by a large number of men trying to find the body of Vitale but without success. His body was not finally found until about 10:00 o'clock on Sunday morning, July 30. All bodies were taken to Winnemucca and boys from the Paradise Camp were sent down to make the identification, which was very difficult on account of their badly burned condition.

Adverse Factors.

In common with most disasters there were a number of adverse factors, most or all of which it was not humanly possible to foresee or guard against which produced the final result.

1. The sudden change in wind direction. The prevailing winds in this part of the country are from the southwest. Normal wind direction in the afternoon in any case is up the canyons. The drainage in the country over which the fire passed is in a southwesterly dir-

ection and consequently the prevailing direction of the wind and the normal canyon air movements were in the same direction. The wind at the time Timmons started to the fire was blowing very gently from the southwest up Rock Creek toward the fire and was carrying the fire in a northerly and easterly direction. There was every reason to believe that this wind direction would continue. About 3:00 o'clock and without any warning there was a sudden change and the wind began blowing violently from the east which would naturally carry the fire down the slopes.

2. The element of uncanny timing. Had these boys been one-half an hour earlier they would have been on the fire line at the time the wind changed direction, and without doubt would have been able to cross the line and get into the burned area without even suffering discomfort. Had they been a half hour later they would have been so far from the fire at the time of the blow-up that none of them would have had any difficulty in making their escape. Evidence at hand seems to show that there was some delay in making the get away from the main camp, but probably not as much as half an hour could have been saved. In any event, there is no moral to be drawn, because while we are inclined to praise the early bird that catches the worm, we must not lose sight of the fact that it is the early worm that gets caught. In any event, it seems probable that these boys reached the scene of the fire at about the only time of day that would have resulted in serious consequences.

3. The personal injury to Kennedy. It is entirely reasonable to assume that if Kennedy had not broken his ankle that he would have been able to escape, since the testimony discloses that Kennedy

was in good physical condition and was so far from being exhausted that he was singing while going up the trail to the point where the retreat started. Tippin and James are described as being strong, husky boys in prime physical condition, the best boys of the entire bunch. There is absolutely no question but what they could easily have made their escape had they not been burdened with Kennedy during the retreat. There is every reason to believe that barring the accident to Kennedy, which delayed them for a considerable time before they reached Barker, that there would have been plenty of time to assist Barker in the last few hundred feet to safety. After making two trips over the scene of the fire and questioning everyone who had any first-hand knowledge, I am absolutely convinced in my own mind that the accident to Kennedy was directly responsible for the death of four of the boys.

Just what might have happened in the case of Vitale is an open question. If he had been left to his own devices, he would have probably done just what he did regardless of the accident to Kennedy. However, it is possible that if Assistant Leader Tippin who was in charge of the crew had not had to abandon his crew in order to attempt to save Kennedy's life that he might have kept the boys in closer formation and taken them all to safety. This possibility is supported by the fact that Tippin must have had a very high sense of responsibility for the safety of his men, otherwise, he would not have risked and lost his own life in attempting to help them out.

I. Recommendations.

After carefully weighing all of the evidence I do not believe that Timmons can be blamed or should suffer any disciplinary action.

Timmons was both well trained and experienced in fighting fires of this kind. He had a high sense of responsibility for the safety of his men, and according to statements of many of the boys had their complete confidence. I judged from their statements that he was one of the best liked, if not the best liked, man in the technical overhead. Considering his previous experience and the history of the action of sagebrush fires, he had no reason to believe that Tippin's crew was being sent to a dangerous place. While he took for himself and his crew the most difficult and dangerous part of the fire, there was absolutely no reason to believe that either crew would encounter any particular danger. The only action taken by Timmons which might be questioned was the dividing of his crew before reaching the fire line, and I doubt if this action would be seriously questioned by anyone familiar with firefighting practice, particularly in this kind of cover. Analyzing this action, the following points come to mind:

1. The division of crews into small units of from 3 to 12 men is general practice, since it is the more or less universal belief that much larger crews do not work effectively under single leadership.

2. Tippin who is an experienced fighter in this type of cover did not consider the route of Tippin's crew to the fire as containing any elements of danger. The fire was burning slowly and distinctly away from the route of approach. There was nothing in Timmons' experience or in previous history of sagebrush fires to arouse any fear that this fire might assume such proportions and travel so fast that men would not be able to escape on the down hill side. With

twenty-seven years of firefighting experience in this Region, I would not myself have hesitated for a minute to approach the fire along the route taken by Tippin's crew. Other men of long firefighting experience, including Roy Headley, Chief of the Division of Fire Control of the Forest Service, and A. D. Molchon of the Division of Grazing made the same statement.

3. If one approach to the fire was more dangerous than another, Timmons took for himself what seemed to be the most dangerous side. Subsequent events proved this to be true since the fire made a quick run to the north before it began its long run to the west and gave Timmons' crew a few uncomfortable moments before threatening the other boys.

4. The portion of the fire assigned to Tippin had the easiest approach along a good trail, was toward the quietest side of the fire, and to a point where it was known that local men were already working. The side taken by Timmons involved steep climbs over much rougher country.

5. Tippin, although an enrollee assistant leader, was a man of unusual ability and a highly developed sense of responsibility. The testimony of the surviving men in his crew was to the effect that he had their complete confidence.

Under the above circumstances it is impossible to see where any blame could be placed on Timmons for his actions on the fire.

II. Recommendations.

Starting from an absurdity, it is evident that there would be no fatalities fighting fires with CCC boys if they were not permitted to perform this line of work. Going on from this point it would seem

that there is a divided responsibility:

1. The responsibility of the men higher up in the CCC organization to establish a few fundamental rules which will act as a safeguard against ill-advised action in all CCC camps.

2. Responsibility of local overhead to see that the minute details of firefighting are carried out in a manner which will assure the utmost safety to the boys.

As the CCC program continues we seem to be getting a progressively larger percentage of under-aged, immature boys, many of them with pronounced mental and physical defects. This has probably been due in part to lowering the age limit to 17 years and partly to causes which are well-known but need not be stated here. It is my personal belief that there are many boys now in the CCC camps who are not over 15 years old and who are immature in both mind and body. These boys should not be permitted to be sent to fires. But up until a few days ago there were no restrictions on fire duty for any of the CCC boys. I am glad to note that the higher authorities of the CCC within the last few days have placed an age limit on fire fighters of 18 years. This is a good move. Probably there was the thought that boys who were under-age would all be in the 17-year age class and would be automatically eliminated. I question that the rule will be quite that automatic and believe that we should go further in the selection of boys for fire duty. There should be some systematic method of weeding out the immature boys and the ones who are physically defective or mentally confused. It is possible that under some such system Vitale and Barker might have been ruled out. I would recommend, therefore, that in addition to the 18-year limit as now established that

boys shall be certified for fire duty only after examination by the camp doctor and certification by the camp superintendent and camp commander.

After days of study of all the circumstances and conditions surrounding this fire and the various actions taken, I believe that this is the only constructive recommendation which can be made, and it is still not at all clear that it would have made any difference in this particular case.