THE SHEEP BUSINESS

The following information is based primarily upon the remembrances, reflections, and observations of my brother, James Edmund Crawford; in fact, a substantial portion of the data has intentionally been retained in direct "form", to insure more complete accuracy and to protect the inclusion of his "feel" for the subject-matter, as well as some of the personal philosophies and humor which he and his dad shared in their years of work together.

Dad resigned from the bank in 1939 to permanently enter the sheep business, by taking over his share of the ranch from Dave Seely. Dad was 57 years of age at that time. We almost have to be in the neighborhood of 57 to fully appreciate the outstanding courage and hard work associated with this decision and the work-burden associated with it.

He had been sitting at a desk or on a chair most of his life; at the time that most people would be retiring, or seriously thinking about it, he was starting out on a new career; one especially that required a lot of physical labor and endurance of the elements, in addition to the mental pressure of managing the sheep business for a profit. According to dad, these burdens were far more easily born and conducive to healthy living than those associated with the banking business, particularly in a small community burdened with impacts of the depression years of the Thirties.

Jim had had some experience in the sheep business, as a boy in grade school and high school, having followed and worked with Uncle Dave during the summer months; in fact classes were so arranged in some years to allow fulfillment of all study and course requirements and allowed him to leave school several weeks before the normal summer vacation; he would use this extra time added on to summer vacation to be with Uncle Dave and the sheep. It must be remembered that dad, while still in the banking business, was in partnership with Dave Seely and they jointly "ran sheep" with Dave doing most of the managing and worked with the sheep, while dad devoted whatever time the demands of the banking business would allow.

It will be recalled from previous recorded history, that dad left the banking business in 1934 to assume the sheep business as a full-time responsibility with Dave Seely. Within a short time, however, the bank urged him to return because of vital needs for his guidance and assistance; he returned to the banking business at the end of the summer in 1934. In 1939 he left the bank permanently, took over his part of the sheep from Dave Seely, and established headquarters in Colorado.

It was during these years, primarily, that Jim increasingly worked with his father during the summer time.

As the foregoing history as already indicated, Jim entered the sheep business permanently with dad following the conclusion of the War and his subsequent marriage. For purposes of avoiding duplications we will not record any dates of these occurrences.

It is the genius and prime business of the sheep man to find feed on the range. Of almost equal importance, is the ability of the sheep man to provide food and facilities for almost continuous survival - food supplies and protection from the elements, varying from severe winter conditions, excessive wet or dry weather, and the ingenuity to successfully cope with recurring emergency conditions.

To the sheep herder his tent is home and wherever he throws down his saddle, that is home and he must relax and be comfortable under those circumstances. Sheep eat something in the neighborhood of 3 or 4 pounds of forage, if they can find it, in a day. They can probably get by on less than that, and will probably eat more than that if the feed is readily available; particularly, if they are emerging from a period of insufficient feed and are in poor condition.

The normal size of a band of ewes without lambs is two to three thousand, so if you assume an average of 2,500 and multiply it by 3 pounds, the consumption of forage in the neighborhood of 4 tons a day, 7 days a week is very realistic and brings into focus the enormous dimensions of the feeding problem.

The feeding problems, which confronted dad and me, were quite different from those which Grandpa Crawford had to face. In the early days - in grandpa's day - the range was open and belonged to everyone, and as I understand it, the sheep business was just getting started and there weren't too many cows around either. We can assume that there were areas that had never been grazed before; this was an entirely different ball game than in our day where every man's range was bounded and decided upon and he knew exactly what was his; there was little chance of changing it without a large financial investment.

Part of the opportunity and problem of the early days in the sheep business was to find and go to land that was good and where the feed was plentiful. Dad told me that Grandpa Crawford was the first one, at least from Manti, to go to Emery County in the winter. You can see, from looking at the map, that the desert on the western side of Utah along the Utah-Nevada line, is accessible from nearly all of Utah. This is the first area that the livestock men used for winter range and they came from all parts of Utah to that area. Therefore, a desert to the east of the Sampete Mountains was less used and Grandpa Crawford saw this and went over into this area; this might be one reason for his success in the sheep business. Contrarily, dad and I were compelled to carefully plan for the purchase or leasing of government or other lands on which to run our sheep - both winter and summer ranges; sizable investments and time were required. Defined limitations, as a result of these actions, were considered inviolable, as against the "first come first serve" availability of grazing lands in the early days of the sheep business in this part of the country.

Although we are primarily concerned with the sheep business as dad and Jim knew it, and their grazing problems and selected geography were different, some interesting observations must be pointed out. One of these is the very unusual geography of the desert east of Emery County. There are areas similar to the Grand Canyon. The San Rafael River runs through a gorge in places comparable to the Grand Canyon. There is another place somewhere called "Sid's Leap", where it is said to be 500 or 1,000 feet deep and at the top is only about 13 feet wide. It is alleged that it is called "Sid's Leap" because Sid Swasey was at one time being chased by a possey and he jumped his horse across the chasm and the possey declined to follow. This gives some idea about the ruggedness of some of the country in Emery County, on the winter range. Rough country is rather awesome to behold and is sometimes frightening. To a sheep man it has opportunities though, as well as challenges; because these ledges and rough places are a shelter from the wind and the elements, and also provide difficult access and limited maneuverability, a lot of the less hearty souls, will graze their sheep on other areas; so, it is an opportunity for the more venturesome kind, the patient kind, to get some good feed and protection from the elements.

The slope of a steep hill causes the snow to be spread out over more of an area, so that in a hard winter you can get onto a steep slope and perhaps, have one-third to one-half the depth of snow as there is on the level. Now, this brings to mind another problem that the range man faces: the changes in the winters; some winters are very severe and cold and others have a lot of snow, while yet other winters provide not enough snow. It is the job of the range sheep man to know where to go to find snow if he needs water or to avoid it if he has too much.

Another thing a range sheep man has to be alert for is the breaking and the melting of snow in the spring time; these variations were especially notable along the San Rafael and the Dirty Devil, (these are streams in the Emery County Desert) where the sand becomes wet and soft and the sheep and livestock gets stuck in the sand. It is not mud; it is actually wet sand and they will sink in it while they are drinking. Sometimes they sink as much as 3 inches and then find they are unable to pull their feet up; this is largely because the sand packs tightly around their legs and air can't get to the bottom; it is this vacuum effect that causes their feet to be stuck rather than the stickiness of the mud; in order to get the sheep out, even though his feet are in only 6 inches or so, it is necessary to force a hand into the mud, down to the bottom of the foot, to let the air get in and release the foot.

Some of the more venturesome still try to arrange to graze their sheep in areas such as this; Grandpa Crawford was such a man. Dad and Jim, because of personal

desires, dad's age, though with continuing vigor, and new legal provisions for the availability of grazing lands, chose other areas, more accessible and less demanding during the winter months. One of their problems, therefore, even though they were eminently successful, was the necessary utilization of poorer winter grazing lands, balanced by good to excellent summer ranges.

Many of the problems to which records has been made above, still prevail, regardless of the passing of the years; the same ingenuity, courage, and durability were required of Edmund and Jim; dad learned much from Mr. James Crawford, and shared this knowledge with Jim for their joint utilization for many successful years in the sheep business.

As has been stated before, feed is the number one problem of the sheep man and the number two problem, especially in the days of Grandpa Crawford, was the ability to live in the elements, perform the necessary work, and to provide for himself. Dad and Jim had to meet these two big problems to no lesser extent; the primary differences seemed to be in improved equipment and facilities, transportation, and marketing. These seeming advantages were significantly balanced off by increased difficulty and required investment of obtaining feed - ranges of proper quality and quantity adequate for the seasons and necessary movement of the sheep to cope with the seasons; also, the inviolable limits defined for individual grazing rights. Probably, planning and management was more complex in Jim's and dad's day. Throughout the years courage, ingenuity, endurance, and persistence had been required of the sheep man; it was no different with Jim and dad, in these regards, than it was in the sheep days of Grandpa Crawford.

In grandpa's day they lived in tents and cooked in dutch ovens. They lived on deer meat and when it wasn't available they killed their own animals. There was no restriction on killing deer in those days. Dad said they had their meat and a sack of flour and this was the extent of their groceries. As Jim stated, "I don't know how long a man could live off of a sack of flour, but I know it could be quite a long time".

Besides providing food for himself, the sheep herder and probably camp tender (it was customary in Jim's and dad's day for two men to go with each herd in the winter and one man in the summer time); Jim said that he could imagine that grandpa had two with his winter bands, but when he was first starting out, the question remains as to just what was the situation concerning man-power. In Jim's words, "It is very possible that he was alone because of the size of his band and his economic circumstances. He was out in that rough country and this was part of the challenge and was probably the reason he was more successful than most of the sheep men of his day; he made the sacrifices and made them well." Grandpa Crawford provided forage for his sheep in the winter, took advantage of the circumstances, even though it meant long, lonely days.

Much of the subsequent material, as has been true in the foregoing, is paraphrased material based upon direct statements or descriptions by Jim Crawford.

If your sheep have good feed they aren't hard to manage. If you have solved the problem of finding feed for your sheep and you have taken care of yourself, you have already solved 75 or 85 percent of your problems, in the sheep business. Dad and Jim crossed the Rambouillet, which grandfather ran, with the Columbia; this latter breed is timid and scared. They never do anything that is not forced upon them unless they first see another sheep do it. In other words, they are the kind of sheep which gave meaning to the old saying, "Like sheep, you follow one another without doing anything different."

In the winter time the sheep would usually bed in the same place for a week or two and feed out in different directions from this bed ground, which was usually close to the camp. If living in a tent, you want to choose the right place for that camp; you wanted to be near the bed ground which is a high point, usually. Sheep like to go up in the evening and bed on a high place, but yet, you like to have your camp in the cedars if possible, because the cedars break the wind and provide wood. Also, if you are riding a horse, it provides a place to tie your horses. Now, in Jim and dad's day, we had a sheep wagon with a wagon behind; and, we tied our horses to the second wagon and in it would be stored and carried the grain and

hay, and perhaps a canvas manger, on the side; or, the hay would be thrown down on the ground for the horses. It is interesting to surmise that in grandpa's day, this wasn't necessary, because of the assumption that there was enough grass in this virgin country for their horses, when they did have horses; but, dad believed that they walked at first, during the early days.

They, grandpa and his companions, if any, would situate the camp near the bed ground; this brings to mind another problem that they had in the early days: that is, coyotes; dad and Jim also had this problem. One reason the camp was established near the bed ground was that of protecting the sheep from the coyotes. These predators usually struck at night-time and if the sheep were heard moving, it was necessary to go out and frighten the coyotes away; the coyotes would attack in the day-time, but not often.

Again, we quote direct from Jim's taped reminiscences: "During the early days of our move to Colorado, we did away with the coyotes and other predatory animals fairly rapidly. Hill Creek, being rather rugged country, would be comparable to the rugged country in the Emery County desert. The coyotes were more plentiful and they had more caves and dens for refuge. We had a lot more trouble with coyotes in Hill Creek than we did in Colorado and Uncle Dave did just as much to get rid of the coyotes in Hill Creek as he did in Colorado; maybe, more. It was a big challenge to control and do away with the predatory animals.

One of the most effective methods was the use of strychnine; this was placed inside of some mutton tallow. It was about the same size and shape of a jelly bean - an animal would be killed, maybe, a sheep, deer or horse. If it were a horse, it would be cut up into quarters and parts put in different places. They would be placed where the coyotes would be apt to travel. They travel along trails like deer, sheep, and horses. They travel through natural passes, especially in the rugged Emery County desert; you would know that nothing could go through that country, except through certain passes and through certain trails. It was along these trails, and where the trails crossed and at watering holes, that the meat would be placed.

The meat would be slashed every 6 inches or so and a strychnine pellet inserted about 3 or 4 inches deep, if the meat was that thick; then, the coyotes would feed upon this in the winter time and would get a strychnine pellet.

Now, in our day, people seemed to be against killing the wild animals. They seemed to think more of them than the livestock; but, anyone seeing what a coyote does to a sheep feels differently. They are eaten alive and sometimes it takes them a day or two to die. They are often bitten on the neck, and in this case, it usually takes several days for them to die. Once they are bitten by a coyote they eventually die. Sometimes they bite them on the nose; at other times they eat at their hindquarters while they are still alive. Having seen lambs and sheep in situations such as these, I have no sympathy for the coyote at all; also, this myth of the balancing of nature comes from the minds of professors who have never been on the range at all and they will site instances from someone else's book where the rabbit or deer population increased because of the imbalance of nature; because the predatory animals weren't there to control the balance of nature. This is a bunch of nonsense. For example, I spent 20 years in the livestock business in Colorado out on the range. I saw the coyote tracks, rabbit tracks, and I saw the deer; and, at that time, the coyotes were practically eliminated and they would have been eliminated if it hadn't been for the Dinosaur National Monument, which was some 20 or 30 miles away from our winter range and on the Dinosaur National Monument the coyotes couldn't be trapped or killed; in other words, it was a protected haven and they would drift out from this protected haven into the rest of the area. Despite this freedom of the coyotes, we would seldom have a sheep killed by coyotes; in the winter time, when the snow was on the ground, we would see tracks of one or two coyotes during the winter. The rabbits came and left according to the severity of the winter; or, according to the diseases that spread among them; however, even in times when they were plentiful, they were a joy to the hunters and offered very little problem.

The deer were controlled by the Fish and Game Commission and by the hunters; they were not over abundant and were kept to the proper levels because of the effects of

the hunting seasons.

Even today, we hear talk of introducing the wolf back into some of the areas. This is a diabolical scheme that makes any good rancher's blood boil.

In our day we had a trapper who trapped bobcats; and, on the winter range he trapped lions when they became a problem. Trapping coyotes is not an effective way of controlling them. They multiply too fast. They have to be killed on a mass scale. That is why Uncle Dave, in Hill Creek, would put out a lot of strychnine every fall.

Now, in the spring, at lambing time, even though they would put out a lot of strychnine, in the fall, they were still troubled with the coyotes. Even this had one benefit for the young people; they would go around setting off fire crackers in the evening.

In the spring time, our sheep were scattered out, both night and day, because of the lambing. It is impossible to be around them all, so we tried to place our beds in the most strategic place; or, at least Uncle Dave did in Hill Creek.

We would take up some quilts and blankets; they would be rolled up in a tarp and could be carried on a saddle horse, in front of the rider; they could be easily dumped off on the ground. We would come back at night and get into the quilts, maybe with our clothes on; I believe we did get right in with our clothes on.

At night, Uncle Dave would get up several times during the night and fire his gun, especially if he heard coyotes; dad and I would also set off fire crackers around the various bands and this would leave the smell of gun powder and, hopefully, scare the coyotes away.

There is a great deal of trust placed in a sheep herder; in later days, he became the town drunk; the bum who went out as a sheep herder because he couldn't live in town around the beer joints and saloons. The livestock is valuable; I don't know just how much they were worth in grandpa's day, say around $5 or $10 a piece, multiplied by 2,000 would be something like $20,000; or, in our day $60,000 which was almost completely entrusted to the sheep herder for varying time intervals. I know that grandfather had some of Christina Madsen's half brothers help him. They were men of the highest quality. Dad told me that men who later became sheep men - owners - got their start herding for someone else, particularly in grandpa's days.

Dad once told me a story; I think it is important because it bears upon the character of the Madsen boys and many of the men in those early days. This should not imply that we did not also have some good men in our day.

They shipped sheep to Kansas City. These would be wethers and older sheep that they were shipping to market. They had to take several men along with them because they would be on the train for several days traveling to Kansas City. They would take them off every so often and feed them in corrals and then load them back again. When the train stopped they would have to go around and see that none of the sheep were down; sometimes a sheep will lie down and another one will lie on top of him and smother him; so, they would have to go around and check on them.

Dad and Christina's brother, Jorgen, who was a grown man and a bachelor, went back with the sheep one year. When they got to Kansas City it was the duty of one of the commission men there, who were selling and handling the sale of the livestock, to take the ranchers around and show them the city. The tour included a strip-tease act; there was a negro woman dancing naked and Jorgen was so disgusted that he got up and left and went back to the hotel. What I am trying to say is that even with this good help, I am sure that the predators killed a lot of livestock in those early days, as they did to a lesser degree in our days, and this must have been one of the main causes of loss and trouble, as was true of our experiences in the sheep business.

The following is a continuation of the direct quotations from Jim's notes: Dad told me another story that stands out in my mind. It also had to do with predators when grandpa was in the sheep business.

The story took place after the lambing was done; they were rounding up the sheep to dock the lambs. (Docking means cutting off their tails and castrating them.) While rounding them up, they came upon a sheep that had been struck by a bear and the whole side of its neck was hanging down and was infected with maggots; grandfather saw this, and in dismay tied the flesh back in place with his red handkerchief, the one he had around his neck; this sheep, being infected and weak, couldn't keep up and so dad, to get the job done, left this sheep. Grandpa said to dad, "Where is that sheep that was hit by the bear?" Dad said, "I don't think she is going to live, dad; I had to leave her." Grandfather said, "I don't give a damn about the sheep; I want my handkerchief." So, we know the predators, bears, bobcats, lions, especially coyotes, took their toll.

It now appears appropriate to temporarily deviate from the direct quoting from Jim's notes; to revert to descriptions and paraphrasing of subject matter based upon his notes:

In the spring, when the sheep are lambing, is a very crucial time and it is interesting to reflect upon the things that had to be done at that time.

Lambs, when they are first born, have to be kept around their mother; if they are separated from their mother in those first few critical days, the mother becomes estranged from her lamb and won't claim it; this little orphan is what is called a "beater". In other words, the lamb and its mother, right after birth, if they remain together and by themselves, the mother gets to know the smell of the lamb and gets to know whether she has one or two; she claims her own and none other and if a strange lamb finds its way over to her and tries to nurse, she will butt it away.

During this first period, if there is confusion and the mother is separated from her own lamb for a day or two, the mother forgets it and it is impossible to determine the identity of the lamb and its mother; one of the best methods to prevent these separations during the lambing seasons, is for the herder to continually move the "droppers" (ewes that are about to lamb but haven't lambed, yet) during the day time and when a lamb is born, the herder quietly moves the rest of the sheep away and leaves the mother with her lamb. It is usually possible to move about one-half a mile in a day and scatter these ewes and lambs, matching mother and lamb. Then, at night the herder will not bed the "droppers" close together; but, will see that they are spread out more than usual at night. The next morning, the herder carefully lets the sheep without lambs drift away and tries to move the ones that haven't actually drifted away along with the "droppers". (The ones that haven't had lambs, yet.) The herder leaves the ewes and lambs by themselves and doesn't bother them for two or three days.

Now, in Jim's and dad's day, and it must be supposed to be the same in grandfather's day, some sheep would be found that needed help; even in the best of circumstances, lambs would be found that seemed to be orphans, continuously presenting the difficult problem of attempting to determine the location of the mother and possibly re-unite the two.

In cases such as the above, the attempt is made to find a lamb which has been born dead; replace it with the orphan, the lamb without a mother; this was called grafting it on to the ewe. Actually, the ewe, the mother of the dead lamb, is tied to a sagebrush with a rope; these little ropes, 3/8 of an inch in diameter and about 1-1/2 yards in length, were stocked at most stores where sheep men shopped; the herder usually carried several lengths of this on his saddle. The herder would tie one end of the rope to the sheep's leg and the other end to a sagebrush; he then would put the lamb by the sheep and return to the two several times each day and force the ewe to let the lamb nurse. Within a period of two or three days, the ewe would come to know this lamb and would accept it as her own; this helps to visualize how a band of sheep would be scattered over 6 to 10 miles.

As the lambs get older, the ewes get to know their lambs and the lambs get to know their mothers, by the sound of their "blat". When a lamb is three days old, it can travel quite fast and take care of itself real well; but, it is more like 10 days before they get to know their mother's "blat". When this sound recognition is established, the mother will "blat" and the lamb will "blat" and they recognize one

another; they will run toward one another from as much as a block away.

Sometimes in the fall, when the lambs weigh about 80 pounds, and the ewe has twins, the lambs will come running and the ewe would start to back up, knowing that the lambs were going to nurse; the ewe has been seen to be still moving backward when the lambs reached her; still, they almost knock her over backwards, from the impact.

The foregoing provides some idea of the circumstances in the spring time and when the predators are most difficult to control; this is particularly true because where there are predators the sheep are usually scattered out and the herder can't be near them at night. Then, gradually, they are grouped together as the lambs get older and they are docked. In the summer time, they are put into bands of about 1,000 ewes. It must be recognized that 1,000 ewes, with a thousand lambs, will make a band of 2,000, which is equivalent to a winter band of about 2,000.

In the summer time, the range is covered with trees more than in the winter and the herder can't see as far; so, the 1,000 ewes would be the maximum.

Jim frequently refers to certain phases of the sheep business in grandfather's day; emphasizing the contrasts and similarities between the sheep business as Grandfather Crawford knew it and the sheep business that Jim and his dad knew. These are being recorded in this history because they are interesting. Some of Jim's observations are factual, some are logical assumptions, or recollections of dad's.

Jim refers to the contest that continuously existed for the open land in grandfather's day. This contrasts with Jim's and dad's time in the sheep business, where the land was strictly bounded and sometimes fenced. Every man had his own range and was not supposed to go any place else with his livestock. Now, in the early days, where the range was open, and belonged to everyone, there was some competition for the best places; and, as the years went by there was competition for any place. Finally, the competition became so keen, that people from the east who were buying the wethers, would buy them when the price was best and leave them on the Utah range until they were ready for them at the market place. This, along with the natural competition among the local people, caused havoc. The outsiders, especially, cared very little for the cooperation and natural boundaries that had been developed among the local people. The local people agreed, "You take this and I'll take that, and we won't interfere too much with each other." As time went on, strict and severe competition even characterized dealings among the local people. Certain tricks were used. An unused camp would be established in order to reserve an area for themselves in accordance with their wishes; this reserving by false camp, of course, gave others the idea that someone else had already moved their sheep to that area; then, the establisher of the extra camp would eventually come over with his own sheep. It was a way of making land reservations that were difficult to challenge, though unethical.

The fact that the Federal Government was coming in and making restrictions, along with the competition that already existed, caused Grandfather Crawford to decide that the "hey day" of the sheep business was over and caused him to re-direct his business efforts.

In contrast to Grandfather Crawford's changing perspective, Jim states, "Dad saw something in the business world that made ranching look good to him, even though it was not as convenient as it had been in the early days. Dad told me that the nature of man and the dealing with men, the frustrations, were such that he would put up with anything in the sheep business, where he would be his own boss and pretty much away from dealing with human nature. I had to find this out for myself." It is my opinion that Jim is referring to his post-sheep business and post-collegiate days and his later career experiences in the industrial and business world; the experiences which tended, in some measure, to validate dad's observations. This is purely conjecture, based upon my knowledge and discussions with Jim; they may be either substantiated or reputed by Jim; beyond this, I do not know what he meant by, "I had to find this out for myself."

Jim spoke about the dogs; especially, the dogs of the sheep herders in grandfather's day. Dad said some of the sheep herders walked in those days; that he

imagined this was more in the summer time than in the winter. A dog was a very valuable asset to go around the sheep or whatever the herder wanted the dog to do; this, of course, was true of Jim's and dad's sheep business experiences. Dad said that in Grandfather Crawford's day, the dogs were so good that they could work two of them at once; the same man would have two dogs. Jim and dad used only one dog with each man; the reason was that the dogs would play together and wouldn't pay any attention to the herder; it was sort of like dad said about boys, "One boy is a boy and two boys is one-half a boy and three boys is no boy at all." Hence, each man had only one dog; sometimes, when two men would come together and be riding along, even then, the two dogs would not work; the herder would send one to work and the other one would look around to see what the other one was going to do; and, if they both went together they were playing around and not tending to business.

The dogs in grandfather's day looked a lot like those which dad and Jim used in the sheep business; of course, in the sheep business it is necessary to have dogs that won't bite. Contrarily, in the cattle business it is most desirable to have a dog that will bite, to get the attention of the cattle; it doesn't hurt a cow to have its heels nipped a little bit; but, with sheep, the dog has to bark and get the sheep's attention; in that way, the sheep will move away from the dog naturally; and, especially, if the dog barks; they will move quite a distance. Consequently, it was necessary to have a dog that would not only go away at a signal, turn at a signal, but, also, bark at a signal.

Now, dad and Jim didn't have any particular way of training the dogs. It seemed to come naturally, and they had quite a few dogs from which to choose. There were always a lot of pups being born on the mountain, and people were always trying to give dogs away. The ones they wanted, they kept; the ones they didn't want, they got rid of.

Jim and dad had dogs which could be started up the mountain, by seeing the proper motion from the herders; some of them seemed to understand that the herder wanted the sheep moved; every now and then a dog would look back to see what arm motion the herder would make, indicating which way he wanted the dog to go; sometimes the dog would be so far away the herder couldn't yell to it; if a dog was in the bushes and was cutting off some of the sheep, the herder could wave it back and it would go back and find those sheep and get them going in the same direction as the rest of the sheep. Sometimes, if the herder wanted the dog to bark, he would say, "Cuss them, cuss them." The dog would bark and then look around to see if that was enough. "Cuss them some more", the herder might say, and the dog would bark some more. When these Rambouillet sheep would hear a dog bark, they would come together from every direction.

In dad's days with grandpa, the dogs were so good that one of them could be sent around the sheep in one direction, making the other dog remain with the herder; then, the other dog would be sent around the sheep, in the other direction and they would go all the way around, pass and come back; each completing its own circle.

The following is an interesting direct quotation from Jim's notes: "I had a little dog once, that I liked. It was in the fall, when we were taking the sheep down the trail to the winter range. It was necessary to go along behind the sheep. It was a day long job, at about 1 or 2 miles an hour and the sheep would be grazing along. Once in a while, one would stop and get considerably behind the bunch; then, this dog would jump off the car and go get it, often without me saying a word to her. Then, she would come back into the car."

The dogs weren't allowed in the tents. They stayed outside with the horses.

Jim provided some most interesting information about the camps the herders had in the winter time; dad and Jim provided a wagon for their herders. It was aluminum covered, insulated, and had a stove with a bed at the back and benches along each side in front of the bed. The table pushed in under the bed and could be pulled out; by the time the table was pulled out fully, it reached almost to the stove. Then, usually, across from the stove there were cupboards and shelves above the stove. The camp tender would usually sit next to the stove on that side and he would be able to sit there, cook the meal, eat it, and wash the dishes without ever getting up. There could be 3 men sitting on one side and two on the other; so,

there wasn't too much room to move around. It was recalled that when Preston Seely and Jim were young, they would be compelled to sit on the bed; they would be handed a plate and some knives and forks; they had to stay there until everyone was through eating; there was no way that the boys could get back down.

In the summer time and early in the fall, they had a tent about 8 feet wide and 10 feet long. This opened on the front end, with flaps. Always on the right side in front, there was a hole in the tent to which the stove pipe projected. The stove which went in the tent was a smaller stove, made out of metal, approximately 1/8 of an inch thick. These had an oven, with room on top for a couple of frying pans. The oven was about 8 x 10 inches. Most of the drippers were made to fit the oven, and the biscuits were placed in the oven; the usual meat and potatoes were fried on top of the stove.

These facilities were made quite comfortable; and, of course, the camp tender was with the herder once a week, more or less; the remainder of the time, the herder was alone. The camp tender would spend time setting things up and making them comfortable.

The bed was always elevated about 2 feet; also, the grub boxes were set on a raised area. The grub boxes were boxes with straps on the back which could be put on a pack-saddle of a horse or a mule; they were about 2 feet in length and 2-1/2 feet in height. They were tapered, in order to be wider on top and narrower at the bottom, to line up straight when placed on a horse.

The stove was just the right size to fit in a canvas pack-bag. There were also some boxes on the other side, by the stove, which were used to hold canned goods, kettles, and this sort of supplies. They were different from the grub-boxes, described earlier. When the righthand side is mentioned; viewing the wagon while standing inside and looking out toward the door. The stove and the supply boxes were on the righthand side; the stove being about in the center. Then, a tent pole came down through the center of the doors. The tent flaps had strings on them and quite often the right flap was tied to the tent pole. Then, there was a rope that was tied to the tent pole, about 3 feet off the ground; then, back to the right corner of the tent. This provided a place for the herder to hang his dish and hand towel.

The tent was usually pitched on a sloping area, and a place dug out for the herder to place his feet; this would leave the bed raised; also, the supply and grub boxes. Quite often, if this was not possible, poles would be found and the bunk would be built up by use of these poles.

The bed was about the size of a double bed and was equipped with coil springs and mattress. On top of the mattress, the bed roll, which was kept inside of a tarp, was placed. The tarp was about 16 feet in length, so that it went under the quilts and around and back on top, going around the foot; then, it was tucked in on both sides, so that only the top was open; pillows were provided, so the beds in the tents were quite comfortable. Jim states in his notes, "The only trouble I ever had was when I would sleep between Uncle Dave and dad or between the grownups; they would pull the covers tight and the covers didn't touch me; it was quite frosty in the summer time in the mountains at night and in the early morning."

The stove was elevated off the ground with wooden pegs; sometimes, empty tin cans would be placed over the pegs to keep them from burning; because, even the bottom of the stove would get hot at times. When the time came to move the camp, the stove had to have time to cool off first. Jim provides some very interesting, detailed information on a problem which he has already described as one of the major ones of the sheep man. The following is quoted direct from Jim's taped notes:

With sheep, the first thing you realize is that a person has something like 3,000 mouths to feed; so, a sheep man's job is to glean this feed from the mountains. This is contrasted with the farmer who has to raise it. A sheep man, at times, has to buy a little here and there, but basically, he would go broke if he had to provide food for the sheep very long that way; so, his genius and his job are to find the food for those sheep on the mountains.

Now, in the summer time, what they like is weeds and tender leaves. Sheep don't like anything that is old and dry; and in the summer, they won't eat long grass. They like the tender shoots as they first come up, when they are about 2 inches long and like short grass and the seeds on the grass. There are certain weeds that sheep like. Colorado is the best sheep summer range in the world. It is just unsurpassable. Sorvis berry is a bush that has leaves that the sheep like; especially, in the spring. They also like to eat the leaves off the snow berry in the spring, but they won't touch oak bushes and they grow so close together that nothing can grow under them; it is almost impossible to get through them (oak bushes).

There are some weeds the sheep will eat. For example, there is one called sweet anise; this has a seed on it that tastes a lot like licorice; even the leaves have a flavor like licorice and the sheep will eat every leaf; however, they won't eat the stems. In the fall, as the grass dries up, the sheep will eat some of the dried weed or grass that have dried up to be more or less like hay. They eat this especially on wet days, when there has been a little bit of rain or wet snow; they will even eat paper, under these circumstances.

On the winter range, they have a different diet entirely; they like salt sage which grows up 5 or 6 inches high and is in clumps; the leaves are oval in shape. They will eat shad scale which is a bush with leaves that are very salty; it has lots of stems and almost looks like a porcupine with leaves on it. I think they would even eat some of the tips of these stems, also. It grows as high as a foot or maybe a foot and a half.

It is strange that the feed on the winter range is salty.

I guess this tells us something about the minerals in the soil in this part of the country, in western Colorado and eastern Utah. In severe weather they eat sagebrush and it also offers a protection and a shelter for them against the wind and snow. Cedar trees are good for the severe part of the winter, not only as food, but also for protection. The cedar bows seem to have a lot of turpentine in them and seems to give the sheep a lot of strength and warmth in the winter.

The shape of the terrain in the winter time is also important. Consequently, it would logically seem that rough country would be very undesirable and make it more difficult to control the sheep, because of the ledges and steep hills and canyons; but, that isn't as important as the matter of food. If the sheep are finding something to eat, they don't travel any further than they need to in order to find what food they desire; also, in these rough canyons, there are rocks and ledges for the sheep to get protection from the wind and the elements. In addition, in the winter time there are clumps of grass growing 2 feet high; also, in the winter time this grass falls over and becomes something like hay, sticking up about 6 inches and spreading out along the ground; in some areas, they are uncovered by the wind or, perhaps, they are next to a rock where the snow didn't get to them; also, the sheep will paw down through the snow and get to these clumps of grass, or they will step on them and know that they are there and paw down to them. They eat snow along with the grass. Most of the desert doesn't have water, so unless there is snow, the sheep can't graze these winter ranges.

Grandfather Crawford summered in the mountains between Manti and Orangeville. As I understand, he moved his sheep to Orangeville in the summer months and, to the desert southeast of Orangeville during the winter. For the sake of remembrances, dad had me drive him down what they call Skyline Drive; this is a road that looks like two ruts. It runs down through the ridge of the top of the mountains, between Sampete and Emery County. Beginning on the road to Salt Lake and running all the way to Salina Canyon. I don't remember exactly where it ends, but as we drove along, dad pointed out to me where they used to keep the bucks and where they had their summer range. The only problem is that I was a stranger to this country, and if I were to go back 15 years later, I am quite sure I wouldn't be able to again point with any certainty to these places.

It will be recalled that much of the foregoing represents direct quotations from Jim's taped notes. It appears appropriate to resume my own descriptions of his notes, at this point, and paraphrase or summarize the following information he has provided;

Southeast from Castle Dale and Orangeville, the terrain is characterized by several different elevations; for example, after leaving Castle Dale, the topography drops down into the drainage known as the San Rafael river. This drains the Castle Dale, Huntington, and Ferron areas. After crossing the San Rafael river, the topography starts up again toward what is known as the San Rafael Swell; this rises to a height of approximately 6,000 feet. The interstate 70 highway crosses this area. It traverses the area near the highest point of the San Rafael Swell. As the country side drops down again toward the Colorado River, the elevation decreases as it approaches the road going from Green River to Hanksville; this is the low point. Again, the topography begins to rise as it gets closer to the Green River or the Colorado River; it reaches an elevation of approximately 6,000 to 7,000 feet before reaching and descending into the Colorado River.

Between this high area and the Colorado River, there is a flat area known as "under the ledge". As it dropped off toward the river, the country was covered with large sandstone rocks and ledges; so, in the winter time, if there was not enough snow in the lower area, the herder took his sheep up higher; and, as the snow melted in the spring, followed it back; or, perhaps, in the spring there might be running streams and springs that didn't flow other times of the year. It, therefore, was the sheep herder's problem; to find feed and to find water. Grandfather's days in the sheep business were not easy ones; nor were those of dad and Jim; throughout the years, all were confronted with the problem of feed and water.

In the sheep business days of dad and Jim, when supplies were needed, a truck and reasonably good highways were available, allowing travel sometimes at 50 or 60 miles and hour, going to and from town to get supplies. This is not intended to imply that all highways were always good and that travel was always easy.

Jim refers again to grandfather's day, describing the roads, if any, as poor and travel was limited to wagon or pack string. As the years went by, they had to go farther and farther away to get good range, because of the increased number of sheep men; so, this made it still more difficult. The desert where grandfather had to go was about 100 miles from Orangeville; so, with teams or horses, traveling only about 15 miles a day, the trip would be long and tiresome. According to Jim, 4 horses were needed to pull the wagon because it would be loaded heavily.

Jim provided additional information concerning the large area to the southeast of Castle Dale where Grandfather Crawford ran his sheep; the contrast between the country which challenged the sheep herder in Grandfather Crawford's day with the grazing pattern followed by dad and Jim is more clearly outlined by this additional detail applicable to geographical areas of previous reference:

Grandfather Crawford also ran his sheep on Buckhorn Flat; it is not far from Castle Dale, on the left side of the San Rafael Canyon, facing down the canyon. The canyon is real deep, and there is one place called the "Overlook"; it is also known as the "Ledge" in Emery County. This area has the appearance of the Grand Canyon; this gives a better idea of the country through which the San Rafael River flows.

Once the herder was on the left side, there was only one place enabling him to cross to the other side; this is what is called the Buck Horn Draw; this leads across to what is called the San Rafael Swell, to which reference has already been made.

Sinbad, where Grandfather Crawford also ran his sheep, is south and east of the San Rafael Swell; the desert, where he also went, is still farther south and east of Sinbad; and, the Dirty Devil River is on the southern end of the desert, near Hanksville. From that point, the Dirty Devil River could be followed to the Colorado River; that was about the only way to get there; this area along the Colorado River is called "under the ledge", a land-mark to which Jim has already referred in his general description of the broad area.

At this point and direction of the subject matter, it again appears more effective to quote direct from Jim's taped notes:

In our day, we didn't roll the meat in our bedding as much as in a pack cover. I

mentioned that there were these tarps that were just the right size to cover the pack on a pack animal, and this was called the pack cover; there were some extra of these pack covers around the camp and they were used for something else until they were needed again. The men would put the meat in the mutton sack and then wrap it up in the pack cover and throw it under one corner of the bed; or, maybe just throw it on the bed; one reason for this was that I did all of the butchering and it was inconvenient in the summer time, when our sheep were scattered out through the good feed, to catch a sheep for mutton. We didn't want to cause a lot of disturbance and cause the feed to be stomped down. It is desirable to keep the sheep as quiet as possible; bother them as little as possible. We never used our dog in the summer time; we just quietly rode around our sheep in the summer time.

I would like to mention a little about shearing. The Rambouillet sheep has tight wool and wrinkles and they are much harder to shear. It is necessary to push hard to force a blade into it; also, they have wrinkles around the neck, and this causes a lot of trouble; so, I think the shearer would prefer to go for another type of sheep.

In our day, we would have a Mexican crew come up from Texas to shear; there would usually be around 25 men. We would have a corral that was big enough to house a platform for shearing; about 10 feet all the way around. The platform for shearing was about 6 to 8 feet square, for each man. They would be in a row with a man on each side. There would be about 10, 12, or 15 shearers; about 6 men on each side; so, the platform would be about 30 feet long and 12 feet wide. This would be covered with a tarp to shade the men while they sheared. They had some poles which were erected with a tarp stretched over this. They would pull a truck in, equipped with a motor to run the shearers and a belt to each position. We would set our platforms on each side of that truck; and, maybe, a couple on each end of the truck. When they released these sheep after shearing, they had a boy who would tie the fleeces with strings; these fleeces would be tied into round balls and carried over to the sacking station; this was a big wool sack about 8 feet in length; empty, they would be about 3 or 4 feet in width. Each sack would hold about 300 pounds of wool; as I recall, about 50 fleeces.

There was one man who would tromp the fleeces down into the sacks, in order to get as much as wool as possible into each sack; this reduced the number of sacks necessary and would be a cost-saver. It would cost less to haul because of the volume - less space on the truck.

In our day, as the boy would pick up a fleece, he would hand the man a piece of round metal - a slug - to the shearer. Once the whole pen was sheared, they would shut down the shearing machines and we would count those sheep from one pen into another pen; and, we would settle with the boss on the basis of that count. It was up to him to decide how to divide the money up among his people; then, while the shearing machine was still shut down and making no noise, we would fill the pen again. The machine would be turned on again and the man would give a signal indicating that the shearers would all start shearing sheep again.

At this point, it appears appropriate to again use Jim's notes as a basis of my descriptive information and to temporarily use this method instead of direct quotations:

There are three or four traits that sheep have; livestock men use these traits continually, in order to manage the sheep more effectively. One of these traits is the handling of corraled sheep; as the herder goes into a corral, the sheep will face him; as he walks toward the sheep, they will run around him and go to his back side; this is used as a maneuver to get the sheep through a pen or chute or corral; in other words, if the herder wants the sheep to go to the opposite end of the pen or corral, instead of getting behind them and trying to scare them into that end of the pen, he gets in front of them; they will run around him, in the direction that his back is facing; he walks through the sheep in the opposite direction that he desires them to go; the result, of course, is that they go where he wants them to go. If the herder wants to fill the pens, he uses a chute about 4 feet wide which runs up to the big corral; this chute had about a 4 foot width on the one end, but opened out like a funnel on the other end; but, he could keep it full, and when the time came to fill the pen again, or the corral

where the shearers were, he opens that gate and jumps in behind the first two, forcing 2 or 3 in by cranking their tails or touching them on the back; after the first few have gone in, he would start walking back through the others; the sheep, seeing a few in there, will run around the herder and into the corral; this is continued until the corral is full. Often, another herder would be present, as a relief man, or helper. Dogs were never used in a corral.

Once Jim and dad bought a group of about 800 sheep in Price, and these sheep were received prior to being sheared; they received them right at the shearing corral, where they were then sheared. They had the responsibility of filling the pens and paid to have them sheared right there; then, they shipped the wool over with the rest and combined them. Dad and Jim did this alone; they used all the tricks of the trade that they knew, and the others never had to wait on them.

For dad and Jim, shearing time was another of the critical times of the year. The sheep were poor and some of them were old and weak. They hoped for good weather, because shearing was quite a shock to the body of the sheep; to remove a couple of inches of wool from their bodies. If the arranged time for shearing happened to be when the weather turned bad, there was very little that could be done about it. The shearer wouldn't shear the sheep when they were wet; this was not only hard on the sheep, but it caused the shearers, for some reason, to get sick; they wouldn't touch the sheep unless they were dry; there were some days during shearing, when it turned cold, nasty, and wet; this was very hard on the sheep and sometimes caused severe losses. In Jim's and dad's experiences, the shearing crews had their time booked-up; like a doctor's appointment book. If Jim and dad didn't take their arranged time, they ran the risk that the shearers would move on and leave them without a shearing crew; this was one of the problems of the sheep business.

Two of dad's and Jim's biggest traumas were: first, getting the sheep from the winter range to the summer range; second, was shearing. They quite often lost 200 sheep between the winter range and the summer range. At first, they blamed the herders, but later, discovered that the sheep were lying down under bushes and dying.

Another characteristic of sheep which had to be understood were the actions of a ewe or mother and her lamb, when they are separated, and can't find each other; the mother and the lamb will always attempt to return to the last place where they were together. This meant that in the spring, when it was necessary to drive a herd of ewes and lambs, it is better to start them off rather slowly and not get them mixed up any more than is necessary; because, once the ewes and lambs are separated they will start going back instead of forward. It was the practice of some herders to start training the ewe and her lamb about 10 days after they were born, by going around the herd and getting the lamb used to having to get up and follow its mother.

If this isn't done, the lambs will get in the habit of lying around on the bed-ground and the mother will go out to feed and come back to that spot. Whenever the herder is trailing ewes and lambs and there is a stop for lunch, or at night, the herder must stop behind them to prevent them from going back to their last bed-ground or to the place where they were last together; that is, ewes and lambs. It is recalled that some herders who didn't know this, have been known to drive a herd of ewes and lambs 3 or 4 miles, and then go to lunch or camp for the evening meal; when they came back to the herd, they found, perhaps, 50 head of those sheep had gone back 3 or 4 miles, trying to find their lambs; the herder would find ewes and lambs strung all the way through the 3 or 4 miles he had traveled. The herder really tried to avoid these situations. It was always dad's and Jim's practice to stay behind the ewes and lambs until the ewes had all found their lambs.

Another trait of the sheep, which is mentioned, is their night time practice, both in the summer time and the winter time, of liking to be in the open and on a higher elevation; they like to go up and out for the evening; so, if the herder doesn't get them all headed toward the same bedding spot, especially in the winter time, some of them will go up and out to a different spot from the others, and would be separated by this habit or trait.

In the summer time, the herder didn't encourage the sheep to bed too closely together; he more or less let them stay spread out the way they were during the day.

In the summer time, the feed was good and they weren't mean and didn't travel far. If they were scattered out at night, the herder could get them going in the same direction the next day.

On the contrary, if the feed happened to be poor, they were herded more closely in order to more easily keep track of them; this made it more difficult for the sheep to find feed; what Jim was emphasizing was that if the feed was poor, it added complication to complication.

Dad had told Jim that Grandpa Crawford experienced about 110 percent lamb crop; that this is tabulated by counting the lambs and ewes and calculating the percentage from those data. According to Jim's notes, he and dad about matched that percentage, although sometimes they did not achieve that level, according to Jim.

When the sheep were docked, there was quite a technique used in getting them into the corral. Jim indicated that it was quite a traumatic experience for the sheep, especially for him, and the herders. If they were to have a lot of trouble and lose 10 or 15 lambs and not get them docked, they considered their efforts sub-standard. In order to accomplish this task smoothly and efficiently, dad and Jim developed some good techniques.

They built their corral real close to the sagebrush, so that the sheep would be moving through sagebrush until they got right to the corral; then, they would break out into the open and into the corral. Once they are in the open, lambs are very hard to control. It is noticed that at that time the blatting of the mothers and the lambs takes on a different tone; it becomes almost frantic, being long, loud, and often.

Sometimes they would miss 10 or so lambs, because they were unable to control them and they would go on the summer range with long tails and other undisturbed physical facilities. They would have to be caught later and perform the docking.

Dad and Jim had another little trick; that was to build a corral in such a way that the end, that they were looking into, was of some material which couldn't be seen until the sheep got right to it; it would give the appearance that that end of the corral was open; it was a very gratifying experience to see the sheep start to emerge from the sagebrush, see the wing on one side made of snow fence, and readily seen, and a snow fence on the other side, and the sheep would break and run for this apparent opening, since the wire at the far end was hard to see until the sheep got within 50 feet of it; the first group would quickly be in the corral and the others seeing the leaders proceed, would come in behind them; so, the sheep would rush into the corral, almost in a bunch, and Jim and dad would hurry, grab the wings, and close them; by the time the sheep discovered that they were in the corral, it was safely enclosed. At that point, the sheep would really start to blat, but it was too late; they were safely corraled.

Another important thing, as Jim expresses it, was to get out at the "crack of dawn" and get the lambs before they really got awake and get the mother before they were warmed up and really had good sense, as Jim expressed it; then, too, they seemed to bleed less at that time of day, so when the lambing and docking was performed correctly, they would do small bunches, using the common vernacular. The work would be completed by 8 a.m. and the sheep would be back out before "the sun hit them".

In the foregoing it was mentioned that snow fence was used. It came in 50-foot lengths and the herders would drive arm pegs into the ground and fasten it to it. At the end, where they had a wire fence, they also had snow fence lying on the ground in back; once the sheep were in the corral, the herders would lift up the snow fence in back of the wire net fence, because there were some holes that a small lamb could squeeze through. The snow fence was about 4 feet high. The herders had panels made of wood which were about 8 feet long; these could be made into a small rectangular pen consisting of 6 panels; these docking corrals could be put on a truck or a wagon.

After the lambs had all been caught and marked and dumped over the fence to fill a pen, the ewes would be branded and counted out.

This brings up the process of counting sheep. At this point, it again appears more effective to quote direct from Jim's taped notes:

When dad was with the bank, one of his jobs was to go out to look at the sheep which they had mortgaged, and to count them. The way they were counted was as follows: they would get the sheep in a bunch and allow a few to go out ahead. Sometimes, they would have to count off a few head, like 10 or 15, and start them out. They would get them counted, then would come back to the main bunch and 2 men would stand 10 or 15 feet apart, and wait until a few went to join the ones that had been started off; as more went to join them, the 2 men would move closer together, so too many wouldn't go at a time. The one man would be counting; the counter was the man who knew the most because he knew when to let more go and when to cause few to pass. Some men would count 2 at a time, but dad counted 4 at a time or 6 at a time, or whatever he saw come through at a time; he would then add these together. This was the way he taught me to count; he had me do the counting; he seemed to want me to learn and he gave me that responsibility. When we got to a hundred, we had to keep track of the hundreds some way. At times, the counter would call out "tally" and someone would write it down; other times, you would have matches in one hand and you would change a match to the other hand. Dad also had a little tallying machine that looked like a watch; it had a lever on the top side, and it would increase the count by 1 each time the lever was pressed. Later, after counting for years, I liked to count by fives. That was the easiest way for me.

You will probably recall that it was a common practice for some men to have a certain number of black sheep. The reason for this was that in the fall and spring of the year, when you are moving from your summer to your winter range, you needed to know if you had all of your sheep. Black sheep were easy to see, and by counting your black sheep, if you had them all, you could assume you had all your sheep. Black sheep created somewhat of a problem at shearing time. You get less for your black wool, so it had to be sacked separately. Dad and I did away with this method of counting our sheep. We found out that you could often be out 50 white sheep and not know it. We had developed a fast way of counting and preferred to count the whole herd. We stopped buying black sheep.

This subject-matter continues to represent direct quotes from Jim's reminiscences: Now, when it comes to moving camp, my horses were more apt to stray than the herder's; so, it was necessary for me to catch those horses early. Not only did the herder get up and get his horses, but, if he was a little late, like 4:30 a.m. instead of 4 a.m., it was of no great importance. The camp-tender, however, cannot be so flexible.

In the spring, it was my job to "night-herd". Our winter range was poor and our summer range was very good, as has been stated previously. The sheep got fattened up in the summer months and they starved in the winter, you might say. By the spring, they were poor and hungry; also, cold, because they had just lost their wool. It was necessary to herd them night and day. I took on the job of herding them during the night, because the camp-tending job wasn't that time consuming. Even when you are moving every day, the camp-tender has the job of fixing the breakfast and clearing up the dishes; packing up things and moving on to the next spot, where they planned to be at noon. After he gets to that place, he doesn't have anything to do; so, again in the afternoon, he has a time during which he can catch up on his sleeping; I felt that those herders were on those horses all day long; that it wasn't quite right for them to have to take a shift of night-herding; so, I had a sleeping-bag and an air-mattress that I would carry out near the sheep; I would lie down on that; I had an alarm clock that I would set for an hour later. If the sheep moved, I heard them and I would wake up; sometimes, they would have gone out a quarter of a mile. At night, the sheep are very spooky and you can whistle or flash a light and they will come running back. I would sometimes have to walk until I found the leaders, and turn them back. We always wanted to be sure that we didn't get just part of them; but, at night, it wasn't very likely that part of them would run back without the others. With a light, like a good flash-light, I could shine it, and even if the sheep were too far away to be seen in the light, their eyes would shine; you have probably noticed this with animals, such as cats; they would show up in that way; also, the bells could probably be heard.

The reason for re-emphasizing the behavior of sheep at night time, is because even with those difficult circumstances, I think the sheep would never move. I don't

know of a time when they moved between the hour of 2 a.m. and 4 a.m. It seemed to be a "dead time". The horses would lie down at the camp. I used to think that horses slept standing up, but between those hours, all of the horses tied to the camp wagon, would be lying down on their sides, snoring. The sheep would be quiet and sleeping. At 4 a.m. in the summer time, that's when your horses start to move; and, if they are in the frame of mind of wanting to go home, that is when they are going to do it; it is pretty clever of the camp-tender or herder to get out there and get his horses and pack-string (mules or horses - or whatever you want to call them) soon after the crack of day; in that way, the camp-tender or herder doesn't have to walk so far.

The nature of the material appears to lend itself more to summarizing and paraphrasing from Jim's taped notes than to continue these presentations by direct quotations, as was true in the foregoing:

Additional comparisons of Grandfather Crawford's experiences and those of Jim and dad receive additional reference. It is mentioned that Grandfather Crawford would come into Orangeville for supplies. It is recalled that this was done about once or twice each month. It is conjectured that he would spend several days getting from the sheep back to Orangeville; in those days, a man with horses and wagon could only go 15 to 20 miles a day; and, that was a good, long day. In those days, Grandfather Crawford acted in the capacity of manager as well as camp-tender.

Jim contrasts those grueling times by indicating that when his dad had the ranch in Colorado, in the winter time he had a sheep-wagon, built just for himself, and even though he wasn't herding the sheep, he camped nearby, 20 or 30 miles from the sheep. Apparently, dad and Grandfather Crawford were alike in that respect, and maybe many others; dad was continually imitating his father. Jim reflected that in his and his dad's days in the sheep business, they had a truck and it was parked outside by the sheep wagon; sometimes they had to build a fire under it to get it warmed up and going; however, Jim pointed out that they didn't have to worry about where it was going and what it was going to eat; they had gasoline in the tank; but, in grandpa's day, he was dealing with horses and he fed them grain; he had to worry about water for them and catching them each morning.

It is stated that a sheep-herder can only stay in the same place for a week or two and then he has to move on. Grandpa Crawford didn't own his range and was never sure whether he could get the same ground the next year. In the winter time, he or his herders lived in tents. The foregoing are interesting contrasts with interesting similarity and Jim deals with them in a most interesting and detailed fashion.

Dad and Jim set up winter quarters at Cockleburr Wash, where they had a granary, corral, and a sheep wagon. The sheep would move up to 40 miles or so from this winter base; but, when dad and Jim came down from Craig, they stayed there; then, the next day they would go out to the sheep. They also had a few sheep at the base; those would be the sheep which were the poorest and needed to be fed; maybe, 2 or 3 hundred and the black face sheep; these numbers varied with the winters.

Jim's notes provide an interesting side-light or after-thought, but certainly related: Grandpa wasn't a farmer. He was strictly a sheep man, because dust bothered him. Dust also bothered dad and Jim's noses, especially when they were in the sheep corral. Grandpa Crawford, if he fed hay or grain, would have to buy it; however, Jim and dad did some farming; consequently, they didn't have to buy all of their hay or grain.

Jim continues paralleling the experiences of he and his dad and Grandpa Crawford. It must be remembered that 3 generations of Crawfords have been in the sheep business and it appears most difficult to refrain from frequent comparisons and contrasts.

It is interesting to note that typical of dad and his father was the practice of staying with the herd and going into town once or twice a month, instead of staying in town and going out to the herd once or twice each month. Jim describes his belief that it was this dedication and other circumstances, such as being the first to have sheep on Buckhorn Flat, having good feed and good help in the persons of the Madsen boys that contributed considerably to Grandpa Crawford's success; that

some of the same traits and practices characterized Jim's and dad's experiences and successes.

Jim emphasizes that the factors described, collectively had to be some of those factors of grandpa's success; whereas, perhaps other persons not willing to do those things didn't have the success grandpa had. Jim does not try to suppress, and this must have been true of dad, the recognition of those factors with which Grandfather Crawford had to contend and yet be successful. He also sees these same traits of ingenuity and persistency in dad as they worked together.

Jim described dad's pride in remembering how to tie the "diamond hitch": when the camp moving was being done, the pack on the horse had to be tied down, so that the packs, and things on the horse's back, couldn't move around; it had to be tied securely because the horse or mule would come to a stream of water and it wouldn't want to get wet; so it would make a big lunge across the stream or ditch. They developed the "diamond hitch" to tie the pack down; using one long rope, with a cinch on the end of it; it is believed that in times, even before Grandpa Crawford's days, mountain men used what was called "pack-bags". The pack-saddle was made of wood and had a tree, similar to a western riding saddle; underneath a western saddle, under the leather, is a wooden tree similar to the pack-saddle; of course, the underneath side, the saddle next to the horse, is covered with sheep skin, with a small amount of wool left on it. The pack-saddle was all for utility, and there was no need to cover it with leather; it was made of wood and shaped to more or less fit the shape of the horse's back; then, there is a piece of wood on each end, that goes up toward the back of the horse from each side; these pieces come up and are bolted together; in both front and back, forming a sort of cross, from which the pack-bags can hang. The pack-bag was a canvas bag, about 2 feet long, from the front to the back of the horse; less in height, being about 18 inches; when the pack-bag, or canvas bag, was filled, it protruded from the horse to the extent of about 12 to 14 inches; these would be hung from the pack-saddle, dividing the load on each side of the horse; sometimes, these pack-bags would be filled with rock salt or grub boxes. On top of this, would go the bedding, poles, shovels and axes; things of that sort. Last of all, would be the pack tarp; this would be a piece of canvas about 6 feet by 8 feet. The shorter side would go from front to back of the horse; the longer side would go over the horse, from side to side, and the whole piece of canvas would be tied with the "diamond hitch".

The "diamond hitch" required a rope about 20 feet long, and a cinch was on one end of the rope; the cinch had a hook on one end and a ring on the end to which the rope was tied; it is emphasized that the horse is always mounted from the left side, and everything is always done from the left side of the horse; the pack-animal is approached in this same manner. The camp-tender did everything from this left hand side of the horse, if he is standing in the same direction as the horse; for purposes of explanation, it is suggested that this left side of the horse be called the near side, and the opposite side of the horse would be called the far side of the horse. As the camp-tender is standing at the near side, he throws the rope and cinch over the pack; hopefully, the rope will go over and down under the horse; if it doesn't, the camp-tender would have to go over on the opposite side and push it under the pack-animal, so that he could bring the hook end of the cinch up on the near side of the horse; the rope that is left on the near side, is hooked onto the cinch and tightened up, to position the cinch under the stomach of the animal; then, the main idea of the "diamond hitch" is to tie everything down, so that nothing will blow off or come loose. To accomplish this, the camp-tender now has the rope completely around the horse, with the cinch touching the horse's stomach; then, a second part of this task is to make sure that a loop goes down around each pack-bag, on both sides of the horse; this design or pattern allowed a loop to be formed; go over the near side of the horse, the rope be pulled tight, and crossed over to the far side; this allows a loop to go around the pack, on the far side, and the loop is pulled tight. It is done in such a way that it forms a diamond shape; as the camp-tender tightens the ropes, comes around and makes a loop around the near side; this pulls the far side tighter, instead of loosening it; then, as the rope comes under the pack-bag, on the near side, and back up to the top, the herder pulls on the end of the rope, and it tightens up the whole load. If it can be pictured, the rope now is pulling against the rope which had originally been thrown over the pack-bag; this tightens up that first circle around the horse, as well as the loop under the near pack-bag. To picture it again, the ropes on top of the pack are now in a

diamond shape; hence, this maneuver is known as the "diamond hitch".

The "diamond hitch" was a very well designed system; Jim describes it, as dad did, as being the mark of a professional camp-tender. In later years, straps were used to accomplish the same thing. The pack-bag, on the far side had the the straps; the leather straps on the near side, had buckles; the pack-bag, on the far side, had a cinch which went under the horse and the pack-bag, on the near side, had a strap that went through the cinch and could be tightened; the straps went over the top of the pack; one went over from the center of one side to the center of the other side; the other two straps crossed on top, going from front to back and from back to front, as they crossed; in this way, it accomplished the same thing as did the "diamond hitch".

Jim notes some interesting differences between horses and mules, particularly where the use of cinches are concerned: it is stated that mules are very clever; in fact, more clever than horses. Horses don't seem to have a mind of their own, as much as do mules. Mules are stubborn but smart. (These are the personal feelings expressed by Jim - and no doubt, shared by dad.) Mules also seemed to be tougher and more sure-footed than horses, as they walked; especially, in rough country; they usually didn't stumble. They weren't as good to ride as were horses; they didn't have the natural gait. Horses were more easily guided and more easily ruled. For an animal that was needed to turn quickly, to guide animals, a mule just wasn't the thing; they wouldn't turn, and they wouldn't stop fast; they would do what they wanted to do, rather than what the rider wanted to do. The horse would just do the opposite.

The mule, being smarter in the case of the cinch, showed it in an interesting way. Apparently, if a cinch is tightened very tight, becoming uncomfortable, the mule would show his discomfort, tempting the camp-tender to cinch it up very tight to keep it from turning; the camp-tender tries to balance those packs the best way he can; however, it is observed that many camp-tenders, instead of trying to balance the pack very carefully, try to compensate the load by cinching as tight as he can. Mules understand this, and as the camp-tender starts to tighten up the cinch, the mule would swell up with air; Jim reminds that it is almost unbelievable that mules can swell up with air the way they did. He describes one mule, owned by him and dad, which could expel air about as fast as the cinch would be tightened; Jim describes the instance of walking away and looking back at this mule, after having tightened the cinch as much as he could, and saw one-half inch of light between the cinch and the mule's stomach; the animal had let out that much air.

Jim describes a technique which he developed to circumvent this trick of the mule: he would cinch up moderately tight, then appear to walk away, or go in the other direction; when the mule had been given time to expel the air, Jim would jerk the cinch real tight and very quickly; the old mule was caught off-guard several times in that manner; when the cinch was jerked tightly, she would really "let out a noise". Jim emphasizes his desire not to be cruel about it; but, he didn't want to get the cinches on and find out that they were hanging loose; he wanted the cinch at least tight; Jim tried to balance the pack very carefully and not depend upon a real tight cinch. At this point, Jim expresses interests, curiosity, and uncertainty concerning Grandpa Crawford's practices in the use of pack animals. He recalls that Grandpa Crawford had to use horses strictly, for transportation; at least in connection with the sheep business. He had to use team and wagons, but mostly pack strings to take the supplies onto the winter and summer ranges. He conjectured that there were very few roads where a wagon could be taken.

Jim notes that he and dad weren't talented with horses; they were both afraid of horses; they put up with them and that was about all. Jim wonders if Grandfather Crawford shared his and dad's fear of horses; or, since everyone had to use horses, was he more reconciled to it than were he and dad. Jim does state that the Seelys were natural horse-men; they loved horses; they understood them, and could control them better than could Jim or dad.

In view of Jim's previously expressed emphasis on living quarters, camps, and tents, he has provided additional descriptions of a more detailed nature, some refinements, to provide a more complete picture of the living pattern, as symbolized by the tent, for our reflection:

They had boxes to hold their dishes; the box which has previously been called the grub box was made with a lid in the front; usually, you think of a lid as being on top; these front lids should, perhaps, be called doors, because they were on the front side of the boxes; not on the top. The box in front, about 8 inches from the bottom, had hinges and the doors would swing down. It could be propped up into a horizontal position and used as a table. In the tent, these boxes always were placed on the lefthand side of the tent, as the occupant faced out. When they sat on the bed and looked out the front of the tent, these boxes were on the left side. At the top, the boxes usually had drawers for the first 3 inches. There were usually 3 drawers, and they were about 3 inches deep. In these, the herder would keep his clean dish towels, dish cloth, and maybe a clean towel. However, the towels were larger, so they would probably have to go in another box.

The dishes usually had a place, so that they would stand up on the one side of the boxes. The knives and forks would go in one of the drawers; also, the herder's writing tablet. The boxes contained, usually, an open can of jam and a can of milk.

To the sheep herder, his tent is his home; even, wherever he throws down his saddle, that is his home, and he can relax and be comfortable under those circumstances.

The tent, in dad's and Jim's days, was really made quite comfortable and there were some ingenious ideas utilized. Jim offers, as an example, the drop door, already mentioned, on the grub box that let down to make a table. Now these were covered with oil cloth and the oil cloth was kept very clean. It was wiped clean after every use. It was the camp-tender's job to hammer a stick into the ground, at the right place and height, so that when the the door of grub box was let down, it would make the leg for the table and the table was nice and level. Another example of clever ideas was the nailing of a strip of leather at both ends on the side of the grub box, on the outside; the butcher knife fitted into this holder and was readily accessible for use; the butcher knife was used ofen and it was convenient to be able to pick it up quickly.

Mutton and potatoes were cooked for every meal. We had canned milk and it was used in place of the cow's milk that we had at home. The can would be punched with a hole in both sides of the top; one to let the air in and the other to let the milk out; the punch was made with something which looked like a nail with a wooden handle; this was an item that most camps had. It was filed sharp, so that you could hit the handle with your hand, and it would make a hole in the can; the hole would usually be about an eighth of an inch across; it was jokingly said that the camp owner tried to make the hole as small as possible, so that holding the can up so long would tire the arm; in this way not so much milk would be used. If the can of milk should happen to tip over when they were moving camp, the milk would run out and be wasted, as well as make a mess; so, a small piece of paper would be torn off the can, the can was tipped up enough to get some milk on the paper; then, the paper was placed over the hole; this would be done to both holes. The milk acted like a glue and would keep the milk from spilling.

In the grub box there would be a can of lard. It was purchased in a can with a lid on it, which would slip on and off.

They used a lot of jam. In grandpa's day they probably used dried fruit and added water to it and cooked it. When Jim was a kid, he recalled having dried apples, apricots and prunes; he would often have a pocketful and eat them when he was hungry. It was necessary sometimes to go all day without eating, depending upon the circumstance; but, in later years we had jam and fresh fruit. Dad was very generous. He provided the herders whatever they requested; this was seldom abused; most of the herders wanted meat and potatoes and that was the extent of it. We usually had canned goods on hand, such as pork and beans, corn, string beans and peas, but they were seldom used. One herder told Jim, "If you want something else, go ahead and open it, but all I want is meat and potatoes."

Back to physical facilities again and how they were used by the occupants: It will be recalled that there were 2 grub boxes, and they were placed on one side of the tent; that one opened out to make the table. This one was very near the bed and the other couldn't be close to the bed. They were lined up on the left side. The herder

usually sat on the bed and the camp-tender would sit near the other box; this would require some type of a stool. Sometimes they would make a stool and leave it, and the next year when they camped about in the same area, they would use the same stool. Sometimes it could be a piece of log, a water keg, or a sack of salt, so the visitor sat on this make-shift chair. Sometimes, Jim would provide the stool, if he had enough time; but, when the camp was to be moved, Jim would come up the day before, move camp the next morning, and eat the noon meal and go back to the ranch. He was acting as camp-tender.

As has already been mentioned, the stove sat on pegs 14 to 18 inches off the ground, at a convenient height. A box was at the right side of the tent, toward the front of the tent. This was to hold wood. There was a space between the box and stove where kindling wood was stacked. Sometimes, the camp-tender didn't stay long enough to chop too much wood.

Between the stove and the righthand wall, some of the herders would cut limbs of green quaking aspen, about 3 inches in diameter and would cut about 1/3 of it away; by placing 3 of these together between the stove and tent, it made a nice clean place for them to place their frying pan. They always turned it upside down. It would make sort of a platform and provided a nice little touch.

In dad's and Jim's days, they had coiled spring mattresses. They were about 6 to 8 inches thick and they were divided into two parts. Some of them were hinged, so that the two ends could be placed together. Most of them, however, were not hinged; they would simply be placed close together. They had cotton mattresses, about 1-1/2 inches thick, with quite a thick, heavy canvas covering. The mattress also came in two pieces. Dad had them made so that the top two-thirds of the mattress was made in one piece and the bottom one-third in another. It made a more comfortable bed, because when they were split in the middle, the herder's hip came about in that spot and it wasn't very comfortable. It also made it harder to pack, because the two-thirds was slightly too large to go over the top of the pack, but it wasn't bad and it really made a more comfortable bed. Jim is of the opinion that this type of bedding was not available in grandpa's day; that he probably used pine bows, piled on top of one another, with a few quilts piled on top of them. This, however, made quite a good bed.

It might be thought that Grandpa Crawford might possibly have invented it.

Jim points out that it took a lot of time to cut enough pine bows to make a thickness of 3 or 4 inches; but, it was well worth it if the herder, like Grandpa Crawford, was to be in a place for a week or so.

Jim expresses the feeling that in both Grandpa Crawford's time and his and dad's times, some quite ingenious ideas were used in the camps to make them more liveable and comfortable; so the men could relax and feel like they were at home; of course, they missed their families; Jim philosophizes, however, that whether in Grandpa Crawford's day or in his and dad's days, if the man in the sheep business isn't willing to pay the price, then he should not be in the sheep business.

In the summer time, the herder's work started at 4 a.m. At that time, the day is starting to break and the herder would go out and catch his horse before breakfast, and go around the sheep. The reason for going to the sheep that early is to get there before they have moved very far. The herder then quietly starts them moving in the desired direction. As Jim expresses it, they are going to move, so you want them to move in the right direction. They gradually feed until about 8 a.m. Once the sun is up, it starts to get a little bit warm, and they are through feeding for the hot part of the day, until about 4 p.m. Consequently, the herder gets them started in the right direction and watches them until about 8 a.m. They are then going to "shade up". They might feed a little bit through shading spots during the heat of the day, but not much. If there are near streams, that is where they like to be during the hot part of the day, because it is cooler. Then, by 8 a.m. the herder's work is done until about 8 p.m. He then goes home, cooks breakfast and figures out what he is going to do to spend the rest of the day.

It is believed that the preponderance of Jim's reminiscences have been recorded, hopefully, accurately and in a manner consistent with my enjoyment at writing from

his notes.

Little remains to be said of, "the sheep business", without encroaching upon the remainder of the Crawford family history. It is sufficient to say, in conclusion of this segment of the history, that dad retired from the sheep business in 1961; Jim accompanied him in leaving the sheep business at the same time; both to build homes in Provo, Utah; dad and mother to retire; Jim to resume his long planned completion of his college work.