Dear Friends:
I want you to know that I thoroughly enjoyed "House of Sky."
It has been quite cold here for some time.
Back to "House of Sky."
My sister, who celebrated her Golden Wedding in July,
pays she raked hay, with a team with a child on each knee. I could
certainly identify with your grandmother. I lived those times. Have looked for crew, coming along?
I never dreamed that if we don't get into war, it would be my good fortune to visit the Holy Land this coming late January, early February.

Peace and Joy

10-6-83

Have a blessed Christmas
That Seattle holly sure adds to Christmas.
I'll call you if I can, next time. I go to Seattle.

How is the new book
Sincerely
Lucy Old

If you are ever in Butte, drop by.
You asked me if I remembered any unusual characters when I was "taking in washing" in Wisdom, Big Hole Basin during the 6 1/2 years I lived there.

I thought of "Joe," a retired banker who had very little to say. When I shrunk his expensive woolen underwear I thought he would never come back but every Sat. he would bring me his 50 cents worth, anyway.

I thought of colorful Charlie Williams an old-time cowboy who brought me a green silk shirt with the request I embroider a horseshoe on the back. That too was a disaster. He still came.

I thought of "Shorty" who
fell down in a corral of cow manure and laughingly bought me the meany clothes. Gordon brought his at least twenty-year-old suit to dry clean. His mother had bought it for him. He was about fifty-five at the time and I, age about twenty, thirty. Couldn't remember his mother. (His mother slept with the silent banker). I remember he didn't have a wife when I was thirteen.)

Then there were the two shady ladies who came to town for the haying season. They, too, brought their laundry and I hardly dared touch it as put lye in the water. I remember one on a beautiful summertime, asking me, how I could smile.
Mr. & Mrs. Ivan Doig
17021 - 10th Ave. Northwest
Seattle, Washington
98177
--run classified ads about '30's haying, late Oct.?

- papers:
  - Wisdom
  - Dillon - Tribune Examiner, PO Box 111 Dillon 59725
  - Hamilton - Ravalli Republic, Box 433, Hamilton 59840
  - Deer Lodge - Silver State Post
    312 Mission Ave, Box 309 DL 59722

Montana Range News

PO Box 1135
Hamilton 59840
haying article in Meagher County News beef edition
Oct. 11, '82

Advertising Manager
Silver State Post
312 Missouri Ave.
Deerlodge, Montana 59722

Please advise me what it would cost to run the following
as a classified ad in two consecutive issues of your paper:

For a book I'm writing about Montana during the Depression,
I'd like to hear from anyone who worked on a haying crew in the
Big Hole in the late 1930's. Ivan Doig, 17021 10th Ave. NW,
Seattle WA 98177.

thanks
Stark, 17-7
Mont. rule for measuring hay:
Over(measurement from ground on one side of stack over the top to ground on other side) minus the width divided by two; this product multiplied by the width and that product mult'd by the length, and the final product divided by the number of cubic feet in a ton. State rule provides for 422 cubic feet per clean ton of blue joint hay; 340 cu ' after hay has been in stack for 6 mos; 512 cu ' for rough hay and alf'a after in stack 30 days... 450 cu ' of clean clover and timothy 30 days to 1 yr in stack.
HAY MEASUREMENT TABLES

Mr. I. Thayer Stevens, of Harlowlton, has devised the following Hay Measurement Tables. They are accurate and furnish a simple, easy method of determining the amount of hay in a stack. Follow the directions carefully and a correct answer will be produced.

Mr. Stevens, who has been a member of the Montana Stockgrowers Association for many years, has generously permitted the reproduction and distribution of these Tables. Since the Tables are copyrighted by Mr. Stevens they must not be reproduced without his consent.

The following Tables giving the same results as the State Standards are for use in figuring the tons of hay in a stack when the overthrow, width and length are known.

The formula is as follows: Key number x length: Tons.

For example, if the stack to be measured is 39 feet over (the distance from the ground on one side over the top, where the height is an average one, to the ground on the opposite side) and the width is 18. You find 39 in the "overthrow" column. Follow this row to the number under 18 in the width column. The number is 3691 for alfalfa, which is the key number. Multiply this number by the length and put a decimal point as many places from the right as there are figures in the key number. The answer is the number of tons.

The formula is the same for all Tables.

COMPLIMENTS MONTANA STOCKGROWERS ASSOCIATION
(Courtesy I. T. Stevens)
Helena, Montana
Dear Ivan:

Why did Billie have to bring those wash days up but since she has I better try to remember a few instances.

I hadn't heard of your book, "This House of Sky," but all those books of people's growing up in Montana are interesting. I love them.

Some of the hay hands did wear bib overalls but I seem to remember a lot of Levis put out by Levi Strauss and at that time the material was tough. It doesn't seem to me that it is nearly as durable now. The bibs were denim (blue denim) and many wore pants and sometimes they were wearing out their old dress pants and some did have tan pants. Just a lot of the boys wore blue chambray shirts. Now that type doesn't seem to be available in pure cotton material but is a blend. Most shirts were solid color and lots of them had dress shirts. I remember Arrow and Van Heusen in pale colors and a few stripes. Plaid shirts were not so prevalent but gaberdines in maroon, brown and dark green were being worn. Some had nice woolen shirts for winter and they required special care.

I can't remember there being any special place where the clothes were worn most.

A change of clean clothing cost 50 cents. I charged 15 cents for shirts (washed ironed, mended and loose or no buttons sewed on) 10 cents for a pair of shorts, 10 cents for under vest, 5 cents for a handkerchief and 10 cents for a pair of socks. Any kind of pants was 25 cents for washing and pressing.

When I started the business, I had an old wooden washing, a large tub with wringer attached with a handle about two feet long that was attached to a bar that was attached to dasher inside the machine. That and two tubs for rinsing completed the equipment except for a large wash boiler that covered two holes on the wood cookstove. During the day there might be a dozen different men to wash for at once. The clothes were marked with different colors of embroidery thread, white and red things were put to soak and then the water transferred to one of the wash tubs and the white clothes were rubbed on a board to get the rings out of the collars, etc. They were then run through the washer and then boiled and then rinsed twice the last time with bluing in the water. That many clothes would mean about four lines in the yard. The colored were also rubbed and the process repeated except for the boiling. First, of course, the wood must be split for the machine stove which I did and the water pumped from the well. A few months after I began washing, I made my first time payment purchase. I sent to Montgomery Ward for a washing machine $5 down and $8 a month. The purchase was less than $100 and it was a gas engine type machine.

Since there was plenty going on Saturday night at the three bars in Wisdom, it was a favorite time for the boys to come to town and drop off their laundry either tied up in a wad in a shirt or in a laundry bag or maybe a flour sack. Otherwise, they brought them any time that they happened to be in-town or had an opportunity to send them.
I don't remember any spots in the yard being killed by the wash water but then my yard was full of weeds and you can't kill weeds. It is possible that too much lye soap would kill vegetation though rhubarb seems to thrive on rinse water. I didn't have a lawn and after I got the new machine, I attached a garden hose to the drain and drained the water into the yard any old place. A friend suggested I dig up the yard with a shovel and plant a garden and lawn and of course the water for any such project would have to be pumped and carried. I did well to keep it raked and cans and other debris cleaned up.

Many hay hands worked on the ranches year round and others had work in the Butte mines or the Anaconda Smelter. They loved to get out into the hay fields and breathe the good mountain air and go fishing when it rained. Haying can be fun especially for teens. Many started their working lives operating a hay rake and came back to graduate to a mower or buckrake. When I was a child they had boats instead of buckrakes and in the basin we had beaverslide stackers. Sometimes a boy or girl started by driving the derrick team. One of my sisters did that when she was eight. One of my brother-in-laws took great pride in his moving and he worked for my father at least fifteen hayings and spent the rest of the year in the Butte mines.

I will insert an incidence about Bill and his mower. He and a girl who weighed about 250 lbs. were mowing. They had to put a buckrake seat on Annabelle's mower as the mower seat was too small. Annabelle evidently was new at the mowing and did a very sloppy job. When they came in for the noon meal she said, "We sure chopped up that piece, didn't we Bill?" Later Bill told me, "She chopped it up, I didn't. I don't think it was possible to find a neater or better mowing machine man than Bill was. What he did was done well. Some of the men did follow the crops but others had regular ranch jobs and in those days there wasn't too much work to be found in the small town of Wisdom so a number of women went out and cooked on ranches and a number of men went out for the haying season. Some of them would haul wood during the fall and winter or take any job they could get.

The Bertrand boys appeared at my father's ranch in the late twenties and worked a number of seasons till they could go into business for themselves. They eventually went to California and Nevada where they prospered but every time they came back to Montana, they headed for my father's ranch in the Big Hole Basin where they would sleep in the bunkhouse, share our meals and go fishing. Pug died when he was fifty. He owned two motels in Reno and Henry was in some kind of lending business in Santa Jose, Cal. In the later years of his life, he would show up every summer and spend a few days helping my brother in the haying but would refuse pay. He would just come out and share the work just as he visited and then back to California and then maybe bring wealthy friends out for the hunting season. About two years ago, Henry died and left word that his ashes were to be taken back to the Big Hole and buried at the head of Tye Creek. One summer, he modernized the bunk house and another helped design and build a fancy chicken house for my sister-in-law. The Big Hole Basin is a lovely place to be in early summer and fall and Henry preferred it to California.

Yes, many of the guys returned year after year and to the same ranches. They were our good friends and a high quality of people.
With the exceptions of some that came in the summer and didn't return the next year, my customers were good friends and one in particular has been a very special friend for over forty years.

My father and grandfather homesteaded in the Big Hole Basin and part of the land is still in our family. At the time that I did the laundry, I was a widow with two small girls, Billie and Barbara. I happened to be helping my aunt and uncle clean a big house whose former owner had taken in laundry, rented five rooms and had built during the depression twelve small log cabins. We found a large sign, "Laundry Bone Here," and since it was a way of earning a little, I nailed it to the corner of my house and I did quite a business especially during the summer for the next three years. Then there was a vacancy in the Forest Service Office and I was the successful applicant so I worked there for two years and then spent sometime on a big ranch east of Missoula where I cooked in a mansion, and also for a few weeks at the Lofting ranch. Mr. Lofting's father was a well-known writer at that time, writing for publications such as Saturday Evening Post and the family were in the Blue Book of Philadelphia society. Mrs. Lofting, the younger, was Ida Kerr of the glass manufacturing company before her marriage.

My youngest brother lives on part of the ranch my father had. It comprises 4800 acres and I love to go out there in the summer. One of my sisters and her husband have possibly 7,000 acres in Sheridan and Wisdom and Wise River. They and their sons have that. Fortunes do change. During the depression years, they had their first piece of land, a small rocky ranch with a two-room log cabin and they put up the hay single handed or with the help of one other person. My last horseback ride was from my father's place over to their place and I found them both in the hayfield with an old Bed X wagon nearby where their two pre-schoolers played out of the sun and within sight of their parents. Fortune favored them and not many years later, they bought the neighboring ranch which had a six-room log house built in 1904. While there, they modernized it. They later bought three more ranches.

I could go on and on but I don't feel particularly inspired at the moment. Those were precious years and we made lasting friendships. I was young and strong and didn't mind that work at all. I remember how cheap fruits and vegetables were and how I canned so much. Beef was selling at 6 cents a pound during some of those years. And we could get a good sized round steak at the butcher shop for 50 cents. I used to figure on 25 cents worth of meat for a day and it was ample. My neighbor with a working husband allowed 50 cents per day. We put in supplies of apples and potatoes and other vegetables for winter and staples were cheap and a ranch hand might get $40 - $60 plus room and board. One fellow got $60 because they had several cows to milk.

I didn't go home with my two little girls. Two of my brothers were married and had their families there and since I am the oldest of nine children that lived, there were several younger people at home. I preferred my own little establishment.

Since there was no Sunday school in town, my neighbor and I started one. We couldn't play the piano very well so played sometimes with only the right hand. Every child in town was enrolled in Sunday school and we always had a good attendance.

I could go on and on but will leave that for another time.

I don't know if this will help you any or not.

Sincerely,  
Lucy Olle
Dear Lucy--

Your letter is enormously helpful. Thanks for taking so much time and trouble. I don't have any further questions at the moment—will be in full swing on my book again after the holidays and may get back to you then.

My wife loved the story of you going into the Laundry business because you found the ready-made sign. She proclaims, "Montanans can do anything." all best wishes, and a happy holiday season.

13 Dec. 62
December 14, 1982

Ivan Doig
17021 10th Ave. N.W.
Seattle, WA  98177

Dear Mr. Doig,

Sorry I have not been more prompt in answering your letter of November 23, but have been quite busy getting the rancher's machinery ready for winter feeding operations. Please feel free to contact me should I not answer the questions to your satisfaction.

Although some of the ranches used homemade pole buckrake teeth, most of the teeth used in the Big Hole were of the "store bought" type. There were at least two sawmill firms from Missouri that brought up a truck load of hardwood teeth every year. Some of the ranches used native lodgepole teeth, but they were not as strong or straight as the hardwood. At time they would spend more time putting in the lodgepole teeth than in bucking hay.

A general rule was that a power buckrake could bring in twice as much hay per day than a horse buckrake. As I recall, a two-horse buckrake could put up two good stacks a day, and two power buckrakes could put up four stacks. A one-horse rake had two shafts that were bolted to the rake frame and held up by a rope over a saddle. Either an old riding saddle or a pack saddle was used on the horse's back.

Most of the stacker teams were three-horse. They were hitched with a device called a three-horse evener. The beaverslide stackers were much bigger than any over-shot I have seen. They would build a 20-25 ton stack. The stacker is built on two, long, 8-10 inch timbers that serve as skids. The stackers were moved from place to place using the derrick team and usually a buckrake team - one team on each side of the stacker.

The name of the hotel with the swimming pool was "Jardine Hot Springs Hotel", but everyone just call the whole establishment (which consisted of rooms, bar, cafe and pool) "The Plunge." There were two bars in town at that time, and it seems one was no more popular than the other. The second bar was "The Lloyd and Dunbar Saloon, but we called it "The Pool Hall." I suppose because of the prohibition days they could not call it a saloon.

If you should ever be in our area during the latter part of July and early August, I would like to show you around the Big Hole to view the haying operations as they are today. It is quite a sight with all the mechanized equipment and efficiency of the operation.

Have a happy holiday season.

Sincerely,

Kenneth Krause
Dec. 18, '82

Dear Kenneth--

I think your response to my questions is just dandy. If I get baffled by details as I work on the book this coming year, I may get back to you for clarification; but what you've told me so far is a great help.

Your letter came just after I managed to get some decent photocopies of the pictures and clipping you lent me. So before I misplace them, here they are, with my gratitude.

My wife and I may take you up on your invitation to see Big Hole baying this coming summer. Depending on my writing schedule, maybe we'll try swing through your country on our way back to Seattle from Choteau in July. Will let you know if we can make it.

Merry Christmas and happy '83.
Dear Mr. Krause—

Thanks immensely for your response to my questions. The information helps me a lot. And I'll return your photos once I get them copied or photocopied after the Thanksgiving holiday.

Since you're such a natural source on haying equipment, I can't resist asking you a few more questions. I hope this batch will be all I have to bother you with:

---I notice the teeth in the buck rake are straight-sided tapered ones. My memory of my dad's hay-contracting (in the White Sulphur country) is that he'd start out with buck rake teeth of that sort—store teeth, so to speak—and when they'd break, he'd replace them with pole types smoothed with a drawknife. Would that be the case in the Big Hole, too? If so, what kind of wood would those pole-type teeth be—lodgepole, or something else?

---Do you have any notion of how much faster it is (or was, when the change began in the 30's) to hay with a power buck rake instead of horse buckrakes? That is, my memory is that it speeded things up quite a lot, but I have no clear idea how much; would it be on the order of a crew with a power buckrake being able to build, say, three stacks a day where a crew with a couple of horse buckrakes could put up only two?

---Until you mentioned driving one, I had forgotten about a one-horse rake. Was that sometimes called a sulky rake? In any case, did it work on the principle of the sulky—the horse between two shafts?

---I notice a three-horse team on the beaverslide stacker in the clipping you sent me. Was that common in the Big Hole? And I've forgotten so much about harnessing horses that I don't know how three would have been hitched—as if to double-teams, except there were three "trees"? Also on the topic of beaverslides: they look to me bigger than overshot stackers, which I recall as difficult enough to move across much distance. Did beaverslides move from stack-site to stack-site in a field on skids, or did they need wheels of some sort? And am I right that the beaverslide seems safer than an overshot, and capable of lifting a larger load of hay? Are there any other advantages to a beaverslide?

---When the haydiggers hit Jackson for a Saturday night, do you recall the name of the hotel where the plunge was? Also, was there one particular favorite bar where they tended to congregate? (In White Sulphur, we had one bar hardly anybody except shepherders would deign to go into). A final question: did the haydiggers spend the rest of the year in any chosen job(s) you know of—work in lambing during the spring, say, or go on to the wheat harvest somewhere?

Again, my appreciation. I hope these aren't too much trouble.
November 19, 1982

Mr. Ivan Doig
17021 10th Ave. N.W.
Seattle, WA  98177

Dear Mr. Doig,

The first power buckrake came into being in the Big Hole about 1935. It was built in my Father's shop in Jackson. They made 7 of them the first year and 14 the next year. The first buckrake was made out of a 1925 model Buick touring car. They were called buckrakes in the Big hole, but I have also heard the term bullrake used. The early buckrakes were made out of old touring cars (the heavier ones) like Buicks, Studebakers, Reos, and Nash. Later on they were made from 1/2 ton truck chassis, mostly Chevrolet or International. After Work War II, some chassis were purchased new. These were Chevrolets or Fords.

There were ranches of all sizes in the Big Hole during the 30's. Some with small hay crews and some with large crews. Some of the larger ranches at that time were: The Spokane Ranch, The Hazelbaker C-D Ranch, Charles Miller, Huntley Bros., Ruby Ranch and Hairpin Ranch. I first worked for John Jackson, a medium sized ranch. My job was driving a one-horse rake (dump rake). The next year I was promoted to a two-horse scatter rake (crazy rake).

The hay in the Big Hole is grass type, some of it native grasses, and some introduced to the area such as timothy, bromegrass, alsike clover, etc. Efforts were made to grow alfalfa in the early years, but the season was too short and the winters too long and cold for it to survive.

The hay is stacked with a stacker known as a beaverslide. It was developed in the Big Hole in the early years and is still used by nearly all of the ranches. Most of the hay in the Big Hole and surrounding areas is still stacked loose because it is considered the most economical way to put it up, and also it keeps better and can be put up under more adverse conditions (slightly damp, etc.).

The haying season started in the 30's about the 10th of July and the workers, we called them haydiggers, would start to arrive about the first of July. They would camp or "jungle up", as they called it, down in the willows below Jackson. The local ranchers would donate beef and sacks of vegetables to keep them until haying started.

Breaking horses was a necessary activity in the weeks prior to haying, and it was common to see a team of one old gentle work horse harnessed up with a snorty bronk pulling a heavy wagon around the streets of Jackson.
There is a natural hot spring at Jackson and a pool (we called it a "plunge") located in the hotel. Also, at this time there was no electricity in the Valley so the washing and bathing facilities on the ranches were limited. A great number of the "haydiggers" would come to town on Saturday nights to go for a swim in the pool. Needless to say, the water got pretty thick.

I hope that I have provided some information that will be of help to you. If you have more questions, please do not hesitate to call on me. Good luck with your new novel. I will be anxious to read it when it comes out. I thoroughly enjoyed reading This House of Sky.

Sincerely,

Kenneth Krause
P.O. Box 825
Jackson, MT 59736

p.s. I have enclosed pictures and a clipping which may be of interest to you.
Oct. 29, '82

Dear Mr. Krause—

Thanks immensely for taking the time and trouble to answer my ad. I'm particularly pleased that you've lived through the period I'm interested in, from haying with horses to now.

What I'm at work on is a novel about Montana during the Depression years. It'll take place in the summer of 1939, and the setting will be in the area around Choteau and Dupuyer, but a number of my characters will have gone through memorable times in other places of the state—worked on the Fort Peck dam, fought grasshoppers in the Havre country, and so on. One of my characters I'd like to have worked at haying in the Big Hole, a summer or two, and so I need to be accurate about such questions as these:

—About when did power buckrakes come into use in the Big Hole? (Also, were they called buckrakes, as in the White Sulphur country where I grew up, or bullrakes, as in the northern part of the state?) Somebody told me chasses would be bought direct from an auto factory and made into power buckrakes—know anything about that? And do you know what make of vehicle was preferred for a buckrake?

—My own father hayed in the Big Hole sometime in the Thirties, and while I don't have any details, I recall him telling of what sounded to me like a colossal haying crew—a dozen or fifteen guys on horse mowers, for instance. Can you recall any ranches with crews that big, and what the names of those ranchers were? Where did you first work yourself, and what job did you do in haying?

—My own memories of haying could stand any refreshing you can provide. I recall the jobs as mower man (with choreboy sharpening the sickles), dump raker, scatter raker (sometimes called scratch raker?), power or horse buckraker, stacker team driver, and stacker(s). Have I forgotten any? And did they have any different names than these, in the Big Hole?

—in the White Sulphur country we mostly used overshot stackers; what kind was most common in the Big Hole in the late 1930's? Also, would most of that country have been wild hay, or alfalfa? And just out of my own curiosity, the last time I was through the Big Hole, three or four summers ago, there still was a lot of loose stacking instead of baling; why is that?

Beyond these specific points, I'd happily have anything that particularly sticks in your mind about those haying seasons when you were a kid—how a particular cook fed, or anybody memorable among the crew, or any accidents or other incidents you witnessed. That is to say, anything you'd like to tell. As I'm writing fiction, of course actual names don't matter.

best regards

[Signature]

J. Dun Dog
Jackson, Montana
October 26, 1982

Ivan Doig
17021 10th Ave.,NW
Seattle, WA  98177

Dear Mr. Doig,

Having been born and raised in the Big Hole Valley (I am now 55 years old), I read with interest your request for information about haying crews in the late 1930's.

I have watched haying operations progress from the early and primitive horse powered operation to the mechanically efficient operation of today. I worked on haying crews from the time I was a youngster until such time I was old enough to become a partner with my father, John Krause, in his garage business where we invented and manufactured equipment which helped modernize the present haying operations in the Big Hole. I am still in the same business.

If I can be of help to you in providing information, please do not hesitate to contact me.

Sincerely,

Kenneth Krause
P.O. Box 825
Jackson, MT  59736
Phone: 406/834-2201
Isolation hasn't worn these people down to feuding and narrowed vision. The women prove their ingenuity at every turn, so that the outsider coming into the valley for the first time and circulating among them immediately gets the feel of what a pioneer community must have been like. Yet you have only to set foot in the small volunteer library building and note the careful selection of books, the attractive clubroom with its ivory woodwork and chintz draperies, and the community kitchen to realize that these people are keeping pace with the outside world.

Where five to 10 men can handle the everyday ranch work (the feeding, dehorning, logging, repairing of fences and machinery, cutting ice, and other jobs), the haying crews number 50 or more—mowers, rakers, stackers, cooks, and bunkys. From the time they can sit on a horse, Big Hole youngsters work alongside their parents. Boys and girls alike are expert riders and ropers, helping with the dehorning and feeding and cattle drives. The

A heavy slide stacker with 3 horses pulling up the fodder
Dear Mr Doig,

I am glad if we have been of some help to you on the subject of haying in the Big Hole in the late thirties. The day began with someone riding out early to wrangle the horses. If it happened to be a foggy morning, it just took a little longer to find them. They were all harnessed before breakfast. They would take the unbroken ones and hitch them with a good gentle horse to a big heavy wagon and drive them around a few times before ever hooking onto a mower. It wouldn't take very long on one of those to take the wildness out of them. Those machines pulled hard, and the tongues were heavy on their necks.

The biggest gentle horses were the ones that they used on the buckrakes. Probably the same ones that they used to feed with in the winter time. A dump rake runaway was a dangerous thing, so was a mowing machine runaway.

It wasn't a good idea to put a spooky horse on a dump rake, as the noise of the rake would really scare them if they managed to get away. It was common to work a certain horse on his own side, alright. A horse would get used to his own side and if he was put on the opposite side he would act strange as if he knew something was wrong.

They treated the horses' necks after they pulled the harness off, and that's all. Some used to bathe their necks with salt water at the start to "toughen them up" Whether it really helped I'm not sure but maybe it did. After they had sore necks, then I think different guys had different ideas about what to use. We heard of them using axle grease, which probably wasn't such a bad thing. They no doubt looked around the barn and used whatever they could find in the way of salve or ointment and used that. If a horse got too sore, he would just be turned out and replaced with another, since there was always plenty on most places.

Yes, here in the Big Hole you could count on the same men to come back again year after year. That was quite a help, as they would be familiar with the fields and horses and knew just what to do.

From what you say about the cooking, it must have been the same as here. The noon was called 'dinner.' The breakfast meal was pretty much the same every day. Bacon and eggs, hot cakes and coffee, cooked cereal, if they wanted it. There was always lots of milk and cream for the table too.

I think they would have biscuits sometimes for a change, I know we did. It kept me busy keeping the syrup pitcher full I remember.oo.

That's right about the dessert - a different one for dinner and supper.

It seemed to be the rule on the big ranches to have the men carry their plates out, that's right. On smaller ranches such as ours was, we didn't have them do it as we weren't set up for it.

One thing that was always done just before haying started, was to make out the "haying order." Go to Butte or some place and truck it in, put it all away in the store room to be ready to use. It took a lot of such things as flour, sugar, coffee, canned goods, bacon, ham, syrup etc. Fred's Dad used to have a nice big garden, and always by haying time he would have a few things to use out of it.

The things he had were radishes, lettuce, turnips, beets, carrots, rutabagas and that's about all, because not much else grows here. I think he also had swiss chard. It helped a lot to have those nice fresh things to use each day. I'm sure it was no different here than in your part of the country, when it came to the preparation of the meals.
When it rained, a lot of the men would draw some money and head for town, if they had a way to get there. If he drew all he had coming, you might not ever see him again.
It would be disgusting to have them come back too drunk to work, but they quite often did. Fred remembers one fellow when he left saying "I'll be back in the morning". He said, 'I never saw that guy again for about a year'.
There were others that might not think they needed to go to town and they would maybe go fishing instead. In that case, we would no doubt have fish for supper, which made a nice change.

Now I think I should mention the bunk houses. A lot of them were certainly nothing to brag about. In fact, some were downright "terrible" too small, dirty, not hardly fit for a human being. We always felt a man deserved a decent place to sleep, but a lot of them didn't get it.
There are lots of stories that could be told about haying time in the Big Hole. Some times a fellow would claim to have driven horses, but it would turn out he wouldn't know how to hook them up, or what to do first when it was time to unhook them.

It would be nice if you could find out just which ranch it was where your parents hayed that summer. Some where there could be an old time book with their names in it!

22 Dec. '82

Dear Mr. and Mrs. Else—

Thanks very much for helping me out with my haying questions. I think you've answered all I have at the moment; if I need to know more as I work on the book this coming year, I'll write again. In the meantime, happy holidays and all best wishes for 1983.
Dear Mr. and Mrs. Else—

Thanks very much for responding to my ad about haying. Your information helps me greatly. I have a few more questions, to follow up on what you've already provided me:

—You mention that mowing machines in particular made sores on the horses' necks. What did you treat those sores with? And how often— at the end of the day, or would they have to be treated before starting in the morning, too?

—I've been told that at the start of haying the horses could be kind of "snorty" until they got into the routine of things again. Was there any particular haying machine—the mower, perhaps—that it was better to put a fractious horse on? (I seem to remember that one of the real dangers of haying was a dump rake runaway.) What about a horse buck rake; would that be a good or bad choice for a fractious horse?

—I seem to remember that each horse of a team always worked the same side. That is, if you have horses named Blanche and Pep, Blanche would always be on the right side, Pep always on the left. Is that accurate? Did it make any real difference, besides habit, whether they were always hitched up on the same side?

—In the White Sulphur country, my dad when he contracted hay hardly ever had more than a man or two who'd been on the crew the year before; the hay hands there didn't seem to be a very constant bunch. Was it that way in the Big Hole, too, or could you count on the same guys—the same mower man or the same man on the stack—showing up year after year?

—Mrs. Else, you mention cooking for the crew. What would a typical day's "menu" have been—that is, what did you serve for breakfast, and what are some of the things you might have served for dinner and supper? (Was the noon meal called "dinner," as it was in the White Sulphur country where I grew up?) Did you serve pretty much the same thing for every breakfast—that is, did the hayhands always want hotcakes or did you alternate, with biscuits and gravy or something? I seem to remember there'd be dessert (a different one) for both dinner and supper— is that right? Were garden vegetables ready by the time haying started? And a final question: when the men were done eating, did they just leave their plates, or stack them on the sink or somewhere?

I appreciate your offering to help me with questions such as these. Both my father and mother you hayed one summer in the Big Hole in the 30's—though I have no idea on what ranch—and I very much wish they were alive to be asked.

best regards
Mr I van Doig
Seattle, Wash.

Dear Mr Diog,

You wanted to hear from some one who had worked on a hay crew in the Big Hole in the late 30's. I guess you could say we have done just that. Fred has not missed a summer in the hay field in sixty years he says. I too, have spent a few summers, not in the hay field very much, but cooking for hay crews mostly.

Ours was a small ranch, but everybody put up their hay the same way. It was always good to get the job started, but it would last for three weeks, if it didn't rain, so we were glad when we finally came to the last day. Everybody was tired of it, and it seemed to be a great relief.

We did not have electricity at that time, but still we managed very well. We kept our milk in the cold water of the spring house, used to work and read by, cooked on wood stoves, carried the water in, but it wasn't so bad. I will admit though, it is a lot nicer now since we have freezers, electric stoves, indoor plumbing etc.

I hope you may hear from some old timer that spent a few summers on a ranch in the Big Hole on a hay crew. There are still a lot of them around somewhere, but there are also a lot of them I can think of that aren't with us anymore. Some were real characters.

If this information will be of any use to you, we are glad to have helped. There may be questions you would like to have answers to. If so, we will be glad to try and give you any more information you would like.

Sincerely,
Mr and Mrs Fred Else

Wisdom
Montana 59756
Haying in the Big Hole as it was in the late 30s

It seems that in the Big Hole a lot of the time is spent that has to do with the hay. In the spring the men irrigate it, when they think it is ready, they put it up. After that is done, they must fence each and every stack, then it gets fed out to the stock in the winter. Spring comes and the whole thing starts all over again.

Just about everything was done with horses in the late 30s. Some of those horses only had to work in haying time, so it took a few days to get them lined out. The men had to be able to really drive horses or he didn't get a job. Of course he could take a job of stacking. Wages were about $5.00 a day, the stackers may have been paid a little more.

At that time there were probably no more than 20 tractors in the whole Big Hole. (This would have been about 1935)

Those horse drawn machines were a slow way to put up hay, however, it always got done. There were the mowing machines with those awful heavy tongues. They always made sores on the horses' necks, and had to be cared for after each session in the field, if they were to continue to work. A team could only stand half a day at a time.

The rake horses would get sore necks too. There were one horse rakes which was really slow, but they didn't get a sore neck anyway and they got to really know their job, they seemed to know just where to go.

They used the Beaver slide stacker, which was invented by a Big Hole rancher in 1910. The load was pulled up by horses. One man was hired to drive the team on this job. They hired a hand to drive what they called the scatter rake. His job was to go around and clean up the scatterd hay left by the buckrakes. If he knew his job, he could save the buckrakes a lot of work. The horse buckrakes were very slow, but they could bring in some terrific loads of hay pushing ahead of them piles way higher than their heads. They had to be big strong horses.

I think the worst was the mosquitoes and horseflies. They made life miserable for every body, but especially the poor horses. The men used to fasten strips of burlap to their bridles so they could keep them away by shaking their heads. The Insect Repellent we have today wasn't on the market at that time.

Just about everybody would start haying right after the 4th of July. The weather must have changed down through the years, because now it will be nearly August before you hear the hum of the tractors starting to mow.

Everyone set their clocks back when haying started. This was because of the heavy dew on the grass. The grass had to be dry. Wet hay will not pick up good, and wet hay will spoil in the stack it may even burn. This time change made it late when the men came in at night and later yet by the time supper was over, dishes done etc.

On the big ranches there was a man hired to do nothing but grind sickles. On the smaller places the men took care of their own sickles and machines. They had to use a grinder run by gas motor, which seemed to work alright.
Ivan Daig
Seattle, Wa

Dear Mr. Daig,

We saw your notice in the paper stating you would like to hear from someone who had worked on hay crews in the Big Vale in the late 30's. We were both raised on a ranch in the Big Vale and Fred has never missed a summer in the hay field for sixty years. I worked in the hay field on his father's ranch while quite young, then we had our own ranch where he worked with his own crew for many years. Ours was a small crew but it was all done the same whether it was a small crew or a large one.

You will probably be hearing from us as we think there is quite a bit we could tell concerning haying in the Big Vale 40 years ago which you may find interesting.

Sincerely,

Mr. & Mrs. Fred Elle
November 8, 1982

Mr. Doig:

After reading your request for information about Big Hole haying, I called your residence the other evening. In this letter I will try to add what might be relevant details to you.

I worked on a 14,000-acre cattle ranch located about twelve miles north of Wisdom in the Big Hole in 1933, 1935, and 1936. The crews ranged in size from 15 to 21 men. We used horses on all equipment the first year, converted to the tractor mowers and finally to the power buck rakes (made by converting old cars).

The crew all lived on the ranch, living in bunkhouses and eating in a large dining room. We used to say that we hayed until the snow flakes fell in early fall. If it rained on a Saturday so we could not work on Sunday we sometimes went to Wisdom or to Jackson to the dances. Some times if it rained during the week we become cowboys and rode all day in the dripping weather, moving cattle or taking them salt back into the mountain pastures.

Pay was $1.50 a day and board and room was furnished. Board was usually great. The room was a minimal kind of accommodation.

The ranch I worked on was the Don Albee Ranch which covered the Howell Creek and Thomson Creek drainages.

If there is other information which I might supply, I would be happy to do so. We first heard of your book, THIS HOUSE OF SKY, through the book review which appeared in the NEW YORKER and was
sent to us by our daughter who lived in Washington, D.C. All members of our family have read-shared your experiences. It is a great gift item, also. A sincere "thank you" from all of us.

Please feel free to contact me as I am always in and about Deer Lodge and other western Montana spots.

Sincerely,

[Signature]

FRANK A. SHAW
Dear Mr. Shaw—

Many thanks for taking the time and trouble to answer my ad. Sorry I wasn't around for your phone call; I've been out of town a lot this fall.

What I'm at work on is a novel about Montana during the Depression years. It'll take place in the summer of 1939, and the setting will be up in the area around Choteau and Dupuyer, but a number of my characters will have gone through memorable times in other places of the state—worked on the Fort Peck dam, fought grasshoppers in the Havre country, and so on. One of my characters I'd like to have worked at haying in the Big Hole, a summer or two, and so I need to be accurate about such questions as these:

—in the White Sulphur country we mostly used overshot stackers, but am I right that beaverslides were most common in the Big Hole? If so, any idea why? I've never worked around a beaverslide, but they look to me as if they could build a higher stack than an overshot; do you have any memory of the dimensions and/or tonnage of the usual stack on the Albee ranch the summers you were there? Also, was it wild hay, or alfalfa? And just out of my own curiosity, the last time I was through the Big Hole, three or four summers ago, there still was a lot of loose stacking going on instead of baling; why is that?

—I'm memory could stand some refreshing about bunkhouse life. Because my dad was the guy who contracted the haying and thus ran the crew, we never lived in the bunkhouse ourselves. I can use any memories you have of bunkhouse details: bunk beds, one above another? What kind of mattresses did you supply your own bedroll, I imagine? If the heating stove was ever used, was the wood supply the choreboy's responsibility, or just anybody's? Was there much card-playing, and if so, what game(s)? What did you do about baths, and washing clothes?

Beyond these specific points, I'd happily have anything that particularly sticks in your mind about those haying seasons when you were a kid—the particular specialties of a cook, or anybody most memorable among the crew, or any accidents or other incidents you witnessed. That is to say, anything you'd like to tell. As I'm writing fiction, of course actual names don't matter.

best regards
3 Horse Elevation

From Kenneth Kane
Jackson, MT
To find number of tons of hay in a stack:

Multiply the overthrow (distance from the ground on one side to the ground on the other side) by the length, by the width (all in feet), multiply by three, divide by ten and then divide by 500 to 600, depending upon the length of time that hay has been in the stack.
HAYING

the stacker like Welsh winding wheels ("I had seen them before...")

progressive orderliness of haying: cutting -- windrowing -- bunches or bales -- stack.

handle hay 8 times by time it's fed to cattle

constant breakdowns

equipment: overshot stacker

- bunch rake
- scatter rake
- mower
- horse buck rake
- power buck rake

riding in jeep or pickup with stacker driver; holding hay on stacker fork with pitchfork

stacker arm breaking
June 8, 1982

Mr. Ivan Doig
17021 Tenth Avenue, N.W.
Seattle, WA  98177

Dear Mr. Doig:

I can't be much help. I think buckrakes were around in the 1930's.

Good luck.

Sincerely,

[Signature]

Alan L. Olmstead
Director, Agricultural History Center
Professor of Economics

ALO/mbr
Agricultural History Center
UCAL, Davis 95616

- Ag’ld His Group
Economic Research Svea, ESA
US Dept Ag
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Agricultural History Center
University of California
Davis, California 95616

I'm at work on a book about rural and small-town life in Montana during the Depression, and I wonder if you have material about haying equipment of that period. A specific question is whether the power buckrake—a species I remember from my Montana childhood in the 40's and 50's: a car or truck chassis put to use to shove bunched hay onto the stacker fork—was in existence by, say, the late 1930's. But I'd be glad to have anything you may have on haying in the intermountain west during that period.

One other topic, although this may be more in the area of folklore: I'd be glad of any material on the slang of haying crews. For instance, in my home area of Montana the above-mentioned machine was called a power buckrake, but farther north in Montana it seemed to be called a bullrake.

cordially

Ivan Doig
The Good Life: a sort of auto biography--Fred Carpenter

(loaned by Stan Devison)

In the late nineties Pa hired two inebriated Spanish American War veterans to help in haying. He asked if either of them could milk a cow. The reply from one of the weaving men was, "Can I milk a cow? Sir, I can milk a cow so fast she will faint away." The next morning, somewhat sobered up, he spent nearly a half an hour pulling, squeezing, and twisting the teats of a gentle old cow but all to no avail. Not a drop of milk appeared in the milk pail. He then admitted that he had never sat on a milk stool and of course it was the first time he had ever touched a cow's "faucets."

We had thirty acres of timothy that year. After mowing it was raked into windrows, shocked and later loaded onto hay racks and hauled to a central location and stacked. Now timothy, because of the compact head on each stalk, hangs together and you get the feeling that a windrow (which extends clear across the field) is deliberately foiling your efforts to wrest loose a forkful. After a day of frustration the milking champion said, "The next time I hire out as a hay hand, I will ask the farmer, 'Do you have timothy hay?' and if he says yes I will tell him 'You don't want me, Jack.'"

After the timothy was stacked we moved on to a meadow of wild native grass which had been mowed, windrowed and shocked. Wild hay does not hang together but is slippery and slides off a hay rack or stack easily, especially if your back is turned. Our frustrated timothy handler had nearly a load on a hay rack when suddenly ninety per cent of the load slipped off. A torrent of profanity didn't seem to help the situation. After several baffling slides he said, "If I ever hire out as a hay hand again I will ask the farmer what kind of hay he has and if he says 'wild hay' I will tell him, 'You don't want me, Jack.'"

The last hay to be put up that year was a field of crimson clover. Pa thought he was planting red clover and was chagrined when it turned out to be something else. He was really upset by the error in the choice of seed. We never knew whether the seed company or Pa was to blame for the mixup. If a seed company would make that sort of mistake today a lawsuit would certainly follow. We grew clover for horses and cattle. Crimso product, not a windrows to th experienced he as a hay hand got?" and if he want me, Jack

Teen-aged hay fields. Any was appreciated mill had an In flour sacks. They defied was good qualities. It was a hay stack at side of her. We days.

Hay and During harvest who was an ef an efficient we Pa asked him from stretching did sound my

Pa was c sweltering At bundles—about wheat scattered worked on the skinning his k and madder—nally, on one escapee was saw piece of mach of city man with
Hay Derricks of the Great Basin and Upper Snake River Valley

AUSTIN E. FIFE
JAMES M. FIFE

The Hay Derrick is one of a few pieces of farm equipment in the irrigated regions of the Rocky Mountain area which are almost universally homemade. Its very simplicity makes it a part of the folklore of material culture, along with fences of native materials, noncommercial gates and gate locks, and patchwork quilts. In a recent automobile trip which carried the authors from Highway US 91 and parts of 191 and 89 from Bunkerville, Nevada, to Yellowstone National Park—a distance of about a thousand miles—only two commercial stackers were observed among probably more than fifteen hundred derricks of home construction.

From the farmer's first need of a hay derrick to its completion and initial use, the process is one of folk design and workmanship, without recourse to specialists, published designs, or extracommunity labor. Using the derrick as a model, the farmer draws up his specifications, makes his inventory of necessary materials, and then pays recurrent visits to the model during the process of construction. With teams and the running gear of a wagon or truck, he goes to neighboring forests at a season when work with the soil was not pressing, to cut and trim suitable logs and to bring them to the farmyard where the derrick is actually built. He may seek the help of a local smith to shape a few metal parts that are necessary, but except for this a farmer's derrick is usually the work of his own hands. He takes the pride of a craftsman in the proper performance of the completed stacker, even though the builder's claim to creative workmanship consists only in an unfailing fidelity to his model.

In early days, when the first derricks were built, the production of alfalfa was limited so that the entire crop was stacked preferably within the barnyard, where it was easily accessible for winter feeding to milch cows and other livestock. This condition still obtains in most farming communities south of the Snake Valley. The derrick that is required under such farming conditions is quite simple, since it need not be mobile.

The illustrations of the particular derrick types were made by Gordon Tucker, a student at Harvard, from photographs taken by the authors.
With increased acreage of alfalfa, however, a number of problems encountered. Only a small portion of the yield was needed for the cattle kept permanently on the farm. The remainder could more practically be stacked in the field adjacent to the ground that produced it and thereby to range cattle which were brought down to the irrigated ranches to be fed. Under these conditions there was an urgent need for derricks that could be moved with relative ease so that several stacks might be built with one derrick. The same factors provided an incentive for the farmers to put their hay with more speed and efficiency. The four times of the Jackson fork (see fig. 36), which was used to carry the hay from load to stack, were increased to six, and this in turn necessitated the use of a derrick that could handle a greater load. So it is that in the Great Basin and upper Snake River Valley there are hay derricks of most varied design and efficiency, reflecting alfalfa production of a particular community, or the acreage of alfalfa, particular farms, or representing survivals of earlier conditions. There is evident lag in some localities between the economic need and the tool that currently used.

While these facts go a long way to explain why different types of derricks are used in the area which is the subject of this study, they do not explain all the peculiar circumstances under which certain derrick types appear in each part. The valleys of the Great Basin are isolated by miles of dry land or mountain ranges. This fact would be of no interest in explaining the geographic distribution of quilt patterns, for example, since these are easily carried from valley to another in complete defiance of natural barriers. But with the derrick it is a different matter. The bulk and relative immobility of the bulk of farm machinery are such that it is rarely if ever transported for more than a few miles. A farmer may take his livestock, wagon, plow, and miscellaneous other farm machinery and settle in another valley, but most certainly he will leave his hay derrick with the permanent installations of his former home. Upon arriving at his new farm he will build another derrick either like the former one, depending upon his memory for the details of construction, or the details of a new type, copying a local model the design and operating principle of which may differ somewhat from the derrick to which he had been accustomed.

Nearly all the irrigated valleys between Bunkerville, Nevada, and Salt Lake City are narrow and are separated from each other by uncultivated areas making observations from the highway highly reliable. More than 80 percent of all the derricks in the valleys touched by the highway were counted, even in the Utah and Salt Lake valleys and in the restricted area around St. George.

Derrick Types, Their Geographic Distribution and Generic Development

Hay derricks of the alfalfa-growing districts of the Great Basin and upper Snake River Valley (from Pocatello, Idaho, to Yellowstone National Park) use the Jackson fork (fig. 36) to carry the hay from load to stack. This fork drops a sixth of an eighth of a wagonload at a time. It is carried from load to stack by a cable which travels over pulleys at appropriate points on the derrick and is pulled by a single horse, a team, or a tractor. When the hay has been raised to a point above the place on the stack where the farmer wants it dumped, the fork is tripped and the hay falls on the stack. Then the derrick horse, team, or tractor is backed up while the hayrack teamster uses the trip rope to pull the empty fork back to his load.

Any efficient derrick must carry the loaded Jackson fork in a natural arc over the stack so that, with only a minimum of redistribution by hand, the hay falls a straight and solid butt. This is accomplished by varied details of construction which take advantage of a mobile boom anchored to a mast in such a way that it tends to swing from any position to which it is pulled, back to a point over the center of the butt. Local designers have worked out ingenious devices to achieve this result and at the same time to construct a derrick sturdy enough to support any load.

Most derricks of recent construction have a base sufficiently broad and sturdy to stabilize the weight of the entire superstructure plus a loaded Jackson fork. Not being permanently anchored to the ground, they can be dragged by a tractor or a sturdy team the short distance required to build a new butt even to build another stack a few hundred yards distant. In areas or on ranches where alfalfa is produced on a large scale, the base structure is sufficiently sturdy to permit moving the derrick an appreciable distance.

We have found six basic types, with from one to four subtypes of each. Our classification identifies derrick types with regard to both their origins and the details of structural or operating principle. We have excluded devices for storing hay into a barn or permanent shelter, and the “beaver slide” (also folk construction), which is so popular wherever timothy and other grasses are produced for fodder. The “beaver slide” is rarely seen in this area.

It might be pointed out that our observations were carried out along the principal lines that transect the area of primary Mormon acculturation from its southern to its northern limits.
TYPE 1

The simplest derrick which has come to our attention consists of a simple upright mast that is planted in the ground and anchored by three or more cables in a slanting position so that its apex is nearly over the center of the barn. A cable which travels through pulleys at the top and bottom of the mast permits the farmer to drag the hay from the load to a fixed position on the barn floor, whence it is redistributed by hand. Although we saw no derricks of this type, we have been told that such derricks were once used in the vicinity of Salt Lake City and in the Utah Valley around Provo, and we conjecture that they have been used elsewhere when the production of alfalfa was just getting under way.

TYPE 2 (FIGURES 1 AND 2)

Structure and function. Derricks of Type 2 are anchored in the same way as the single vertical mast of Type 1. But varying types of booms are suspended on the vertical mast so that the loaded Jackson fork may swing in a suitable arc over the stack and drop the hay at any desired point thereon. Both Subtype b and c have a single-directional boom and differ only in the angle the boom forms with the mast: a right angle in Subtype b; a 45° to 60° angle in Subtype c. In derricks of Type 2 the boom is suspended so that it will hang naturally over the center of the stack. It is pulled by the load teamster away from the mast position in order to load the Jackson fork, but as the hay rises from the load, the boom swings around once more to its natural position.

Subtype d resembles c in every detail except that the single-directional boom extends beyond the vertical mast for three or four feet and is fastened to it by a log chain. This slight difference may seem trivial, but may well have been the point of departure for the innovations which led to most of the modern derricks. The services of a blacksmith, needed to build the metal joint which attaches the booms of Subtypes b and c to the mast, are not required in Subtype d.

Some may think that there is overrefinement in these classifications of derricks of Type 2. Yet a careful examination of the distribution chart which accompanies this article (fig. 12) shows that specific communities adhere to particular subtype. The uniformity of derrick type in most communities, or to the specific angle formed by the mast and boom, is even more striking than this chart indicates.

Even in derricks of Type 2, farmers began to make changes in the basic structure in order to give the vertical mast more rigidity and at the same time to decrease the number of cables required to anchor it. The addition of a lateral base (fig. 2), with braces some ten feet up the mast, decreased the number of supporting cables from three (or even four) to two, and at the same time reinforced the mast.

Distribution of Type 2. Derricks of Type 2 appear in nearly all the irrigated valleys along Highway US 91, from Bunkerville, Nevada, to Idaho Falls, Idaho, and up the Snake River Valley along US 191 at least as far as Rexburg, Idaho. Of 417 derricks counted between Bunkerville and Salt Lake City, 108, or 26 per cent, were of Type 2—a possible exception being made for the fact that derricks seen at a distance may have had the base structure that differentiates derricks of Type 3 from Type 2. However, of many whose base structure was actually seen only one was of Type 3. The most casual examination will...
reveal that Type 2 is characteristic of the area from Salt Lake City south, found practical today only where alfalfa is produced in relatively small quantities and is stacked in the barnyard for feeding to dairy cattle or other farm animals. Its use in the Snake River Valley diminishes as the acreage of alfalfa increases, and its present use on small farms represents the survival of stacking conditions that prevailed three to five decades ago.

A total of 55 derricks of Subtype 2a was observed, of which 26 were in the Utah Valley and 5 in the southern part of the Salt Lake Valley where cannon were made. Fifteen derricks of this subtype were observed in Millard County, and the remaining 9 appeared at scattered points from Scipio to Bunkerville.

From a distance it is frequently difficult to distinguish between Subtypes 2b, 2c, and 2d. However, the fact that we assemble our data on these types under a single heading should not be construed to mean that there is random deviation from one of these types to another. The derricks which we observed at close range seemed to adhere somewhat rigorously to a particular subtype. In the irrigated area around Cedar City, for example, every one of 15 derricks observed was of Type 2d. In Beaver, 19 derricks of the 39 observed were of Type 2; of these, 3 were of Subtype a and the other 16 of Subtype c. Only in Millard County was there a random occurrence of most of the derricks of Type 2: here 15 of Subtype a were observed, and 17 of Subtypes b, c, and d.

**Type 3 (Figure 3)**

We did not positively identify a single derrick of Type 3 during the trip which led to the preparation of this article. It differs from Type 2 in having a rectangular base which is frequently concealed from view. The triangular base is of the greatest importance, since it both eliminates the use of costly cable for anchoring and gives the derrick the mobility needed to erect one stack. A log which transacts the triangle of the base extends well beyond the apex. When the derrick is in operation this base log is anchored to the ground with a chain and bar and is sometimes loaded with boulders to counterbalance the weight of the loaded fork on the extended boom. Braces reach from each corner of the triangle support the mast about ten feet above its base.

The authors stacked hay with this type of derrick some three decades ago on their father's ranch at Idaho Falls, Idaho, where it was then used to near exclusion of other types. It was entirely suitable to the needs of a farm where a moderate amount of alfalfa was produced. It was sturdy enough to support any load of cured alfalfa that the earlier four-tined Jackson fork would carry, but the six-tined Jackson fork, with an increased capacity, can tip over the derrick. Construction of more efficient derricks apparently led to the near abandonment of this type, though we are certain that a careful search might bring to light some examples.

**Type 4 (Figure 4)**

Early experiments with derricks capable of being moved led to the use of a rectangular base with the vertical mast supported in its center. Consequently, the mast was six to eight feet away from the stack, and it became necessary to lengthen the boom correspondingly in order to bring the loaded fork over the center of the stack. In derricks of Type 4, the one-directional boom of Type 2d was replaced by a long cross boom suspended on the vertical mast with a log chain a little below the cross boom's center of balance. The butt of this diagonal boom is anchored with a log chain to the base of the mast, exactly opposite the center of the stack. When the fork is not loaded, it is easy for the teamster, by pulling on the trip rope, to pull the tip of the boom against the wrapping action of this chain around the mast, back over his loaded hayrack. But once the fork is loaded, the chain from the diagonal boom to the base of the mast assumes its maximum length, thus pulling the fork to a position over the center of the stack.

We observed a total of 35 derricks of Type 4, all within the relatively narrow area between Beaver on the south and the Utah Valley on the north. In the valley of Beaver, 41 per cent, and in the valley around Nephi, 21 per cent, were of Type 4. In the community of Mona, near Nephi, every derrick was of this type.

**Type 5 (Figures 5, 6, and 6a)**

Type 5 is a derrick of complex design, in which the entire vertical mast and loaded booms rotate on the axis formed by the mast. A heavily braced rectangular base is shaped to a pyramidal top, which forms or supports a collar in which the mast turns. Subtypes a and b are readily recognizable by the 45° angle boom with counterset triangle, or asymmetrical triangle formed by the boom fixed to the upper portion of the rotating mast.

This derrick requires a minimum of extracommunity materials; the farmer could produce everything but the three pulleys and one cable. It seems clearly limited to Central Utah, from Parowan to the Utah Valley. Of 153 derricks noted of this type, all but 9 were in the three adjacent valleys of Millard, Scipio, and Nephi. Five of these 9 were observed on what appeared to be one large ranch, isolated in the northern part of the Utah Valley. It is of interest that Subtype b predominated in Millard and Nephi, while 28 of the 35 derricks in the Scipio Valley, which lies between Nephi and Millard, were of Subtype a. Only 30 derricks of Subtype a were observed: 2 in Millard, and the others in the one community of Scipio.

**Type 6 (Figures 7–10)**

The derricks of Type 6 represent the most modern types—the most efficient, the most mobile, and the best suited to the requirements of alfalfa production
on a large scale. Like the derricks of Type 4, they have a long diagonal boom supported on a rectangular base.

Subtype a (figs. 7 and 8) is characterized by a short, stable, vertical mast with a long diagonal boom balanced upon it. It resembles Type 4 except that the

boom is attached directly on top of a short mast instead of being suspended with a log chain halfway up a tall one. In earlier models the diagonal boom was attached to the vertical one by a clevis made from the end of a wagon axle, a bolt, and a U-shaped piece of iron shaped locally. Modern types had a commercially built ball-and-socket joint. The only significant variation in design are symmetrical or counterthrust bracings in the base structure. Derricks of Type 2 from Salt Lake City south usually had a symmetrical base.

In Cache Valley, in northern Utah, every derrick observed (estimated to be more than a hundred), except one commercial type and one old, deserted stacker of Type 6b, had the counterthrust bracing. Through the upper Snake River Valley as far as Idaho Falls, Type 6a was the most common; the symmetrical-type base seems to be favored there, though some stackers have asymmetrical bracing.

Of the 417 derricks observed between Bunkerville, Nevada, and Salt Lake City—slightly more than 26 per cent—were of Type 6a. They appeared at ever-increasing frequency from Parowan, on the south, to Cache Valley (north of Salt Lake), except in the valley of Scipio, where Type 5a was almost universal. In the isolated community of Cove Fort, 4 of 5 derricks were of Type 1; in the Salt Lake Valley, 26 of 36 derricks were of Type 6a.

In function, Subtypes b and c (figs. 9 and 10) are quite like Subtype a; in natural design and general appearance they are wholly different. There is a vertical mast. A long diagonal boom is suspended with a log chain from an overhead beam (b), or from the apex of a pyramidal base (c). Subtype b is almost obsolete, although 7 such were observed in Bunkerville, Nevada, one in Franklin, Idaho. Derricks intermediary between Subtypes b and c were observed in the upper Snake River Valley. They consisted of either a shaped pyramidal or a truly pyramidal base with a short horizontal cross beam below its apex.

The distribution of derricks of Type 6 is of interest. Subtype a was observed in Parowan, on the south, to a point about fifty miles north of Idaho Falls, the north. Hence, its zone seems to coincide entirely with that of derricks of Type 2. Subtype c, on the other hand, seems limited to the upper Snake River Valley and the Great Basin only as far south as the Utah Valley. Only specimens were observed south of Salt Lake City. However, as one travels north from Salt Lake it becomes more and more common and from about the 100 miles north of Idaho Falls to West Yellowstone it seems to be used to the exclusion of all other types.

A Comparison of Derrick Types with Respect to Economy of Construction and Efficiency of Operation

It seems safe to assume that, by and large, a farmer has been willing to use the simplest and cheapest derrick which adequately meets the requirements of his farm. At the same time, he has been dependent on the available materials and the traditional derrick types with which he was familiar. If greater production forced him to construct a more intricate and more efficient rig, he knew the added effort meant a saving in time and toil at having....
Type 4 achieved great sturdiness by the use of a rectangular base, a total of eleven or twelve poles, the usual three pulleys, one cable, and one log chain.

Most attempts to add a base structure to derricks of Type 1, so that they could be moved, were doomed to failure. The tall, fixed mast raised the center of gravity to such a height that the derrick was easily tipped over, especially when the six-toned fork came into use. The triangular base, requiring the location of the mast on one side of the triangle, produced a derrick that would stand alone. Yet this was still so instable that it had to be anchored to the ground when excessive weight was put on the tip of the boom. The attempt to make derricks of Type 2 stable and mobile with a rectangular base was also doomed to failure because the mast was so far from the stack that even a boom of maximum length could not carry the loaded Jackson fork to the far side.

Stackers of Type 6 solved the problem of mobility by the use of a long diagonal boom. This reached the far side of a stack, even with a rectangular base, and at the same time lowered the center of gravity while the derrick was being moved, since releasing the cable which anchors the butt of the boom to the mast brings its tip to the ground. This development also simplified the reading and repair of cables and pulleys.

These modern stackers have achieved the maximum in efficiency of operation and at the same time have eliminated the use of costly materials from the community sources. Type 6a requires only a log chain and a commercially ball-and-socket joint (to join the diagonal boom to the vertical mast) in addition to the usual three pulleys and cable. Type 6c is even less dependent upon industry, since no ball-and-socket joint is required.

Stackers of Type 5, like those of Type 6, seem to have been developed by a need for mobility. But the problem was solved with such intricate construction—i.e., the base structure alone requires up to sixteen poles—that two teams are usually required to drag this sturdy and heavy derrick any distance. This system, however, has two advantages: it requires fewer materials from inside the community than any other derrick—only three pulleys and one cable—and it permits the construction of a tall stack with a very broad base, thus reducing the need for moving the stacker. It should be noted parenthetically that this derrick is used where alfalfa is produced on a relatively small scale.

Conclusions

The hay derrick is a typical item of the folklore of material culture of the small areas. It has a distinct local use. There is evidence showing a progressive development of types, starting from a single upright and immobile mast to varied and intricate derricks corresponding to varying types of alfalfa production. The evolution of types
seems to have taken place within the area in question and with very little dependency upon methods of folk construction employed in other areas.

Derricks of Type 2 might have continued to satisfy every practical requirement had the production of hay on a larger scale made it imperative either to build larger stacks or to build stacks in several different places on a given ranch. Faced with this problem, the farmer had either to build more derricks or to redesign his old one to make it mobile. This he accomplished, at first, in a somewhat unsatisfactory manner, by mounting it on a triangular base. This derrick, having so high a center of gravity and a heavy vertical mast, was easily tipped over. Experimentation with a rectangular base produced a more mobile derrick, but its boom did not reach far enough over the stack. Experimentation with longer booms finally developed a long, diagonal cross boom, as in Type 4, which is clearly a transitional form between derricks of Types 5 and 6. When a method was discovered to mount a diagonal boom on top of a short mast, Type 6a was created, and there were no subsequent developments in the basic design beyond the replacement of the primitive clevis by a ball-and-socket joint and the innovation of asymmetric bracing in counterthrust to the weight of the diagonal boom.

The designers of Type 6b derricks solved the problem of mobility by using an identical rectangular base and suspending the diagonal boom from another head beam (Type 6) instead of balancing it upon a vertical mast. However, difficulty was encountered in securing adequate rigidity until the brilliant conception of a pyramidal base was elaborated. The result (Type 6c) is a derrick which is the most effective combination of rugged construction and mobility of any derrick type which has come to our observation. At the same time it requires fewer extracommunity materials than any other widely distributed type.

More difficulties are encountered in explaining the origin of derrick Type 5. While the concept of a vertical rotating mast is ingenious it must have been a matter of development of a base structure so unwieldy that mobility, the very goal of the innovation, was sacrificed. That the practicability of the type is questionable is shown by its limited use.

We may ask to what extent the genesis of the derrick types of the Great Basin and upper Snake River Valley, as summarized above, took place in the area itself. That the early settlers of this area had used hay derricks prior to pioneering the Rocky Mountain West seems doubtful, since the use of the kind of stacker must have awaited the discovery that, in a climate so cold in winter and so dry, hay may be properly stored without a permanent shelter. The existence in the area of derricks ranging from one immobile upright incapable of dropping the hay at a single point on the stack to varied mob...
Hay derricks are capable of swinging the hay to any point on a butt of appreciable size. The design suggests that we have here a folk art created to satisfy the needs of hay production in the irrigated areas of the northwestern United States. They were almost wholly upon the use of native materials and skill and adapted to the changing economic needs of the irrigation farmer, who has solved his problem so well that the combined genius of capital and technology has been able to do no better.
Hay Derricks.—Interest has persisted in my communication on the “Hay Derricks of the Great Basin and Upper Snake River Valley” (*Western Folklore*, VII, 225-239) to the extent that I have been stimulated to gather further data, the result of which has been such that in some particulars I have been able to confirm my hypotheses, in others, I have been forced to revise them. The Division of Farm Machinery of the United States Department of Agriculture together with the agricultural engineering departments of several schools of agriculture have all published materials on hay stackers and even speculated a little upon the origin and dissemination of the various types. A number of patents have been issued for various hay-stacking devices since as early as 1858, though, significantly, none of them to inventors residing west of the Mississippi. The investigator who compiled this data concluded, “whether or not any of the machines patented were ever manufactured commercially, or ever came into general use is unknown.”1

Some have wondered to what extent the stackers mentioned in my article are of authentic “folk” development. In order to satisfy myself on this point I have addressed inquiries to a number of competent agricultural engineers both of the state colleges and of the U. S. Department of Agriculture.2 Without exception I was advised that these institutions had never undertaken any developmental work along this line, having limited their work to the preparation and dissemination of information on the construction of types already in common use. They further confirm my belief that the derricks described in my article have never been designed, manufactured, or sold by nationally known implement companies.

Perhaps the stacker most frequently mentioned has been the so-called “Mormon stacker,” or some variation thereof. It has been stated that this stacker has been in use in some sections over fifty years. This is particularly true of Utah, although there they are more apt to be referred to as hay derricks, swing derricks, or hay stackers. No inventor has been named for any of the stackers mentioned by our correspondents, nor has any definite date for the invention of any of this equipment been given, but estimates which are considered quite reliable state that these derricks have been known and used in sections of Utah over fifty years. One correspondent from Northern Utah asserts that actual inventors are unknown—“knowledge passed from one farm to another.”

Actually the term “Mormon derrick” is a misnomer since it refers not to one particular type but to a group of perhaps fifteen stackers which differ essentially from each other, although all of them have the one point in common that the hay is hoisted by means of pulleys and a cable attached to frames of widely differing structure and function.

Data have come to me which make it necessary to revise significantly the table of generic development. (See figure 11 of my original article.) We have observed an occasional primitive stacker in Utah, Montana, and near Gilmore, California, which must stand as a kind of prototype along with the single-pole stacker of our Type 1. It consists of an A-shaped frame or of two vertical poles with a horizontal pole between them, the whole anchored by guy wires as was the single-pole stacker which we originally took to be the point of departure for all our types. A pulley located in the center of the horizontal pole made it possible to drag hay up the side of a stack and let it fall at a point directly under the pulley.

It is also evident that, early in the evolution of the “Mormon derrick,” a tripod stacker was developed similar to our Type 6b but having no boom. I have not observed this derrick in the region of my inquiry, but from descriptions of it in agricultural engineering literature I am convinced that it must still appear in this region and that formerly it may well have been common. Its absence today could easily be explained by the fact that a boom was added to the older derricks once this efficient innovation was discovered.

WE S D F

We also feel obliged to add a statement about the matter of folk construction and development. While it is probably true that most of the earlier derricks were constructed by the farmers themselves, with evolution to more efficient and somewhat more complicated types, there has been a tendency to employ the services of a local craftsman who specializes in the art of derrick making as a "side line." This explains the marked uniformity of types in given communities.

Finally we wish to note the recent intrusion from other areas of two stacker types into the region of our investigation: the "beaverslide" and the "overshot." These types, seemingly of "folk" origin and development also, do not originate in Mormonia, but their efficiency seems to be such that they may in time replace the "Mormon" family.

AUSTIN E. FIFE

Occidental College

The Side Hill Guanos.—The side hill guanos were little lemming-like animals that lived on the steep side of Lembert Dome (Tuolumne Meadows; location varies). These animals fed on lichens and always faced the wind, which was consistently from the west. As a result of this constant facing in one direction, the guanos' legs on the uphill side became shorter than those on the downhill side. One day, the wind shifted to the east, and the guanos could not eat because they were turned the wrong way. On the point of starvation, they tried to turn around to face the wind, but because of the difference in the length of their legs, they lost their balance, fell, and were all killed. They are now extinct. (This story is widely spread in the Sierra and throughout the western United States. A similar one is to be found in the cycle of tales centering around "Pecos Bill." Collected from Sylvia Kershaw, Berkeley, 1949.)

The Little Gem Handy Gadgets.—These are silly and humorous aids to mountaineering. Examples: Exposure collar—a very wide collar which prevents the climber from looking down and being scared by his height above ground; he is also prevented from seeing his feet and where he is going. Suction cups—attached to the hands and feet and used for "human fly" climbing of smooth, vertical walls. Rope nippers—nippers used to cut the rope of a falling climber so that those to whom he is tied will not be pulled down with him (this is breach of the code that demands that the belayer always protect the leader). Roping-down bag—a sack with an attached rope

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The "beaverslide" and "overshot" stackers are described by F. E. Price and W. L. Briebeler in Extension Circulars Nos. 403 and 404 of the Federal Cooperative Extension Service, Oregon State College, Corvallis (Oregon), both of April, 1943.

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Dear Mr.Daily,

Recently I read your ad in the Rawlins
Republic seeking information on haying
in the Big Hole during the depression.
I can't give you any information
on the Big Hole area in particular, but
I did notice a rather comprehensive story
(complete with pictures) on haying
in the Broadwater, Montana, area during
the depression. The article appears in
the Winter Quarter issue (1982) of
Small Farms Journal — cost is $4.00.
If you haven't seen this issue of
Small Farms Journal, it may be of
help to you.

We have enjoyed your books and
are looking forward to the next one!

P.S. Some of the Big Hole
ranches are still haying
with horses you might
check with Jack
Hirschy of Wisdom Mt.,
for information. He
tries to keep the area
back to the '30's.

Sincerely,

Helen Eden
P.O. Box 402
Corvallis, MT 59828
Dec. 8, '82

Dear Helen--

Thanks for taking the trouble to respond to my ad about haymakers. Just as I was about to send off for the Small Farm Journal you recommended, a former professor of mine provided me that issue, so I've saved 4 bucks.

I'm keeping Jack Hirschy's name as a source if I get over to the Big Hole to see haying this summer. Have had excellent response to my ads; am learning a lot.

All best wishes; hope you're wintering well.
Mr. Doig,

I am sorry to have so slow in getting this off to you but it has been a pleasure for me to recall a few of the details you asked about. If you should ever come by way of Deer Lodge and care to see some of the beaver slides etc, I would be very glad to give you a tour where you could see some of the old style equipment still in operation.

The best of luck on the new novel. May it be as successful as THIS HOUSE OF SKY.

Sincerely,

[Signature]

400 Missouri Ave.
Deer Lodge, Mont.
January 6, 1983
Jan. 12, '83

Dear Frank Shaw--

My gosh, I appreciate all the time and effort you went to, in getting together the Big Hole baying material. It looks so complete that I don't have any further questions, but some may arise as I go along with my writing on this book. I hope maybe my wife and I can get to your part of the country this summer, will let you know if we can. In the meantime, thanks immensely.

all best wishes
Unigrip
Side arm
Draw Bar
To pull meter

Power Pull-off or
Hoist your Beaver Slide

Power Back Rake

Dump rake mode by putting 2 regular rakes together.
Recollections of Haying in the Big Hole '30's

The native hay in the Big Hole was various wild grasses—nut grass, red top, wild timothy etc. The one most often spoken of as characteristic of the Big Hole was the "nut grass." It was a fine grass which did not grow very tall but had a head of seed about two inches long which was brown in color. It was thought at that time to be very nourishing, both as a graze crop and also as winter feed. Yield on the wild hay meadows was often about three-quarters ton to one acre, hence lots of acres need to be covered to secure enough hay for winter feed. I never saw a field plowed until after WW II and very few since then. I can never remember a crop of alfalfa in the Big Hole.

The Helming Brothers of Wisdom in the Big Hole were very innovative in building hay machinery. They converted many old cars and later truck (old and new) into power buck rakes by removing all of the body but leaving the motor and dash and radiator, then turning over the rear axle so that the three or 4 normal forward speed were reversed. The steering unit was then also reversed and a new suit placed. A hay basket (hay fork) was then attached to what had been the rear of the old car. This was much the same hay basket as on the old horse drawn buck rakes. The machine now became an implement where the wheels that did the turning were in effect in the rear and the power wheels were then directly adjacent to the load as the large hay basket (fork) was suspended in such a fashion so that it would follow down the windrows of hay and thus gather a huge pile of hay perhaps 1000 pounds and push all into the hay basket on the Beaver Slide. The radiator on such vehicles was usually enlarged and often set up high so that air could circulate to a greater advantage to cool the motor.

Helming Brothers also remodeled the hay dump rake by putting two hay rakes together, this making it much wider, a great advantage in the larger meadows with their light yielding hay crops. I ran the first tractor mower on the Albee Ranch in 1935. It was an International F-20 with a 7' cutting bar and we pulled a trailer mower also with a 7' cutter.
The year prior to this we used horse drawn mowers. The Albee Ranch had thirteen of them and a full time man was needed to sharpen the cydes on a large water power driven grindstone.

Haying did not start until around July 20 at this altitude but it sometimes lasts through much of August. The ranch had to maintain a large herd of horses to supply thirteen mowers, 6 or 5 dump rakes, 4 or 5 buck rakes, as well as a "pull-off" team. There also was a need for extras to take care of horses suffering from sore shoulders, fatigue, and other problems. Mr. Don Albee kept about 30 brood mares and a Belgian stud. From the offspring he picked the ones he wanted to keep and sold the rest.

The only work most of those horses had to do was during haying as it usually required only 4-to-5 teams during the rest of the year, even for the feeding months in the winter. As one may imagine, each year beginning the haying season, there was a process of almost breaking horses all over again. Some of the men were good teamsters but most were not and the men had to be schooled as well as the horses. What commotions there were about the corrals and in the hay fields during those first few days of haying.

The hired men came from a variety of sources. Some were miners from Butte who wanted to get out in the fresh air for a month or so. They realized the hazard of the mines in acquiring "black lung." There were a few young men from the surrounding area who knew how to handle horses. (I was a college kid, a nephew of Mr. Albee but I had grown up on farms and ranches.) Many of the men were picked up off the streets of Butte, Dillon or Deer Lodge or Anaconda. Others came from the "hobo jungles" of these towns. A few returned year after year. One character I particularly remember was "Blackie", a heavy set fellow about 50 years of age and about as dark and dirty as the name suggested. But he was kept on as he was considered a "good hand."

In the middle '30's pay was $2 dollars a day and keep but the stackers usually got 50 cents a day more.

Most of the men seemed to travel without a bed roll and just one extra change of clothes with maybe two or three shirts. All were housed in the bunkhouses on old iron bed frames with mattresses around World War II time. Two or three blankets and a quilt completed the bed. Often the old beds were purchased from some hotel either updating their rooms or going out of business. Bedding was usually washed once a year. Steady hands who stayed the year round had their bed clothing washed perhaps two or three times. As a hay hand, I slept in an assortment of beds but never had an experience with bed bugs. Other ranch people, such as Conrad K. Warren, tells us of bed bugs being brought in bedrolls, and the fact that some ranchers had to prohibit the bringing in of bedrolls for this reason. Some of the bed bug stories are hilarious, but they were also very hairy for anyone having the experience.
Bunkhouses then had a definite musty odor resulting from a combination of dusty old log walls, stale tobacco smoke, sweat stained clothes, and odorous feet.

There was not much time for relaxation or recreation during haying season. If one had to lay off haying because of rain or green hay, the men would put large tubs of water on the bunk house stove and heat it for bathing or washing clothes—sometimes the same water served both purposes. The wood was supplied from a large pile supplied by the owner but usually the hired help split what was needed in the bunkhouse. If time allowed there might be a game of hearts, rummy or very rarely, poker. Drinking was never a problem on that ranch as it was never tolerated.

The food situation was one of the bright spots on most of the ranches. On the Albee Ranch the kitchen was part of the main house where a full time cook was employed. (A large, motherly women from Butte named Mrs. Sheffield was many years at the Albee Ranch. Not only did she manage the kitchen and remind Mr. Albee, a bachelor, to change his shirt but she acted as midwife for the birth of many children in the Big Hole.) The summer table was in a large glassed in porch next to the kitchen where as many as 26 to 30 men sat down to eat three times a day—6 a.m., 12 noon and 6 p.m.. Breakfast usually was coffee or milk, mush (oatmeal), home made bread, butter, meat (sausage, bacon or ham), eggs and potatoes. There was always a large bowl of stewed dried apricots on Albee's table which was either breakfast fruit or dessert. The fresh meat was usually butchered on the ranch and kept in a large cooler. Supplies were purchased in Butte from whole supply houses and hauled by truck to the ranch and stored in the basement (a store within the house).

The dinner meal at noon was the largest with plenty of meat, potatoes, vegetable (corn, beans, peas, beets). Often there were greens of beet tops, spinach, dandelions or lambsquarter with the home made bread and butter. Supper was only slightly less than dinner but often this was one hot dish like stew or mulligan. Cookies and pies were often served and there was always food left over when the men finished eating all they wanted. Cold tea was even served but never with ice. The china was heavy restaurant ware and as the dishes and silver were washed, the table was set ready for the next meal. The long table was covered with patterned oilcloth.

Haying was very steady work for some of we young natives. If one had a general rain, usually 3 or 4 of us turned cowboys and loaded a pack mule with salt and went up into the higher ranges to move and salt the cattle. It was an all day trip most often in the rain. We wore slickers but still came home, wet to the skin and too cold to describe.
The saddle stock was also rather unpredictable and a few of us were periodically "unloaded." It was almost side splitting to see the pack mule unload 8 blocks of salt from his unwilling back. Most of us involved in this particular rainy day range operation were "old hands."

I have already mentioned the tempermental haying teams and the antics early in the season. Runaway did occur which resulted in broken tongues on mowers and often badly mangled harness.

One such incident almost totally destroyed a new mower but no one was hurt. The only near fatal accident occurred when two men were trying to start a power bull rake by towing. It was on an incline and an older man jumped on the towing unit to give it traction. He slipped off and the machine rolled back over him badly crushing his back. He was put on an old door and covered with blankets and sent by ambulance to Butte. I went to visit him three days later in the hospital and he was still lying on the door. He never fully recovered from this accident but lived another 12 to 15 years.

Dances were held in Wisdom and Jackson but most of us didn't have cars and the distance was a little too far to go although I do remember going a few times. Work was seven days a week and that discouraged too much late "partying" or dancing.
The "Beaver Slide", a home made stacker was developed in the Big Hole to make practical a rugged, strong, fast and economical machine to lift the hay in order to build a stack. Due to the direct lift up the "slide", the stacker was fast with only the hay basket sliding up the rails, being pulled by two cables. There was a minimum of parts on the Beaver Slide (moving parts, that is) and this helped to minimize breakdowns during the busy haying season. The Slide was built with logs and poles with a few home shop made reinforcements made of iron. The only "store bought" materials required are the cables, bolts and usually 4 pulleys. The Beaver Slide could be built as large and strong as needed. Because it was built on long log skids it stood up well to being moved across such terrain as the native meadows, irrigation ditches etc. Many times 2 or 3 buckrake loads were put on the Beaver Slide basket at one time as it did indeed have a large capacity. An experience stacker usually had every load dumped in the middle of the stack and then he would pull they hay out to the corners, always leaving the middle of the stack high. The stacks were about 24' x 24' and sometimes 30 feet high when finished and containing 15 to 18 ton in each stack or "butts" as they were commonly called. Most of the time the Beaver Slide was pulled ahead 24' and another "butt" added. This is perhaps the cheapest of all methods of stacking and keeping hay and it is used now extensively here around Deer Lodge and in the Avon and Helmville areas. It works very well with a mixture of grass hay but not so well with alfalfa as the alfalfa leaves often drop when being moved this much. The loose stacked hay keeps very well and feeds out well in the winter. Ranches now usually have large loads with a hay fork to pull the hay from the stacks--some even have heated cabs for this winter chore.
April 18, 1983

Dear Ivan,

About the Scatter Rake, if memory serves me right, the frame that supported the driver and trip mechanism was connected to the main frame by two brackets. These could break which would require welding.

The mower parts could be guards (the arrow-shaped plates are called sections). If you recall, the sickle had one end with a knob on it about the size of a golf ball. This was called the sickle head. Under tough conditions the head could break. Another part that could break was the Pitman stick. This connected the drive to the sickle.

In regards to moving the privy, your explanation of how it was done sounds good to me. I think the depth would have been in the range of 5' to 7'. Hope this helps and that your book is progressing well. We'll be looking for it. Joy just brought your last one home from the library.

Brad Kemler

May 4, '83

Dear Bradley—

Okay, thanks for the haying details—they help a lot. Will be in touch. All best to Joy.

regards
Smuggled against the rugged profile of the Continental Divide that skirts Montana's southwestern corner is a cow-country paradise called the Big Hole Basin. It's a high, mountain-girt valley twenty miles wide, sixty miles long, with altitudes above 6500 ft. Hay, cut from the level floor of this huge pastureland, is so abundant that the area's been aptly nicknamed "the valley of 10,000 haystacks".

Seldom has any area been so richly endowed in the factors that make for easy production of top-notch beef cattle. Critters, fed only on the nutritious wild grasses that carpet the valley, compete on the market with grain-fattened stock. Out of their natural bounty, plus the relative isolation, Big Hole folk have emerged with ranch and living patterns unique to this and a few other high-altitude valleys.

Some of the homesteaders who began settling up the Basin in the 1880's made attempts at growing regular crops. Nature soon set them straight. Because of the high elevation, killing frosts are likely every month of the year, and crop-minded settlers either moved to lower country, or switched to raising cattle on the forage crop that nature planted. Today the original grass still covers the valley, and its agriculture goes on as if the plow, seeding, and fertilizing had never been discovered.

The center of the Big Hole is the town of Wisdom (pop 150), 65 road miles southwest of Butte. To get there you drive over.
a 7500 ft.-high pass. Once over the hump, the pavement changes to a good gravel thoroughfare that picks its way along jack-rail fences marking off the haystack-polkadotted landscape. Fifteen miles south of Wisdom is the Hole's other cow metropolis, Jackson.

Wisdom is a going frontier town, complete with boardwalks, false-fronted store buildings innocent of paint for decades, general stores, a concentration of saloons that figures out one to every fifty residents, and a still-used two-story outhouse. On a hay-season Saturday night this outpost jumps with cowboys, haydiggers, ranchers, and fishermen in for trout-casting. There's enough congestion that on occasion it takes three hours to get a place at a bar. The favorite hangout is Petty's, run by R. C. Petty, a colorful ex-railroad cop, cattle-buyer, fisherman, hunter, and tall tale-teller. It's a sprawling establishment where, besides the usual bar fare you can get a meal, a gun, a fly rod, fishing license, advice, a fight, or a seat in a poker game.

Even though it's officially a third the size of Wisdom, Jackson is an equally lively place. Three years ago rancher John Dooling and his wife decided they wanted some place in the valley where they could hold a square dance. So they built and christened with their ranch-brand the delightful Diamond Bar Inn, a $400,000 log hotel with cabins attached. They equipped it with a genuine chef, and rated a nod from Duncan Hines. Taking advantage of a nearby hot springs, the Doolings piped in the steaming water both to heat the Inn and to fill an inside swimming pool just off the huge lobby. The result, in Jackson (pop. 50) is about as unexpected as finding the Waldorf Astoria suddenly plunked down in Podunk (pop. under 500). Today this Inn serves as the center
for Big Hole activities, and as headquarters for an increasing number of outsiders who drive in to hunt, fish, ski, or just to relax.

Before the white man discovered this hay-growing oasis, buffalo grazed its luxurious grasses, and the Nez Perce Indians brought their ponies here to sleeken out after the long winters. The first tourists of record were the explorers Lewis & Clark who, on their way west in August 1805, ventured up the mouth of the river which drains the Basin. This stream flowed into the river they'd named after their sponsor, Thomas Jefferson, and as they continued along they named its tributaries after his virtues. They'd already dubbed waterways with names like Philanthropy and Philosophy, and they called the hearty rivulet that tumbled out of the Big Hole simply "Wisdom River".

Next July, on the way back, Clark took part of the expedition right through the heart of the valley. Near the present-day site of Jackson, he recorded, "we arrived at a boiling spring, 15 yards in circumference, and too hot for a man to endure his hands in it 3 seconds. I directed Sergt. Pryor and John Shields to put each a piece of meat in the water of different sizes. One, about the size of my three fingers, cooked dun in 24 minits.(Clark's spelling) (A thicker piece took) 32 minits before it was sufficiently dun."

After this experimental cookery, Clark took his leave of "the extensive valley which we called the Hotspring Valley. It is indeed a beautiful country; though enclosed by mountains covered with snow, the soil is exceedingly fertile and well-supplied with esculent plants, while its numerous creeks furnish immense quantities of beaver."

Though Lewis & Clark named the country first, the monickers that usually stuck were those used by the trappers who were usually
ignorant of the explorers' journals. Philanthropy River, for example, they referred to as "the Stinking Water". Early-day fur seekers called any mountain valley a "hole", and those who snared the abundant beaver in the comparatively huge Wisdom River drainage called it simply "the Big Hole", and gave its principal river the same name.

Once again, on August 9, 1877 history touched the Big Hole. Early the morning General Gibbon and his troops, in hot pursuit of a rebellious group of Nez Perces, came onto the unguarded camp of Chief Joseph and his followers. The Indians were camped on pastureland at the west side of the Basin. In a surprise attack at dawn, the troops fired into the tents where braves, squaws, and papooses slumbered. The Nez Perces quickly rallied, and under Chief Joseph's skilled generalship outmaneuvered and outfought the soldiers and had them near defeat. The battle ended almost as suddenly as it had begun when, at the end of the third day, the Indians literally folded up their tents and vanished into the night. Nowadays, as the Big Hole Battlefield National Monument, the site of this conflict is haphazardly preserved, with markers that show grassed-over trenches, improvised dugouts, bullet-laden trees, and the course of the battle's principal actions.

Life in the Big Hole, like ranching anywhere, is a simple pattern of existence,--tied to the seasonal cycles of grass and cattle. Only here, with the short season to spur them, they do it bigger, better, and faster. Ranch spreads of 10,000 to 75,000 acres, with cow populations of 5,000 plus draw no special comment.

As soon as the spring sunshine clears the deep snows from the valley sides, the cattle are branded and herded onto these slopes for summer grazing. By the beginning of June, ranchers turn on the primitive irrigation that's kept them drought-proof. They
simply divert most of the flow of the mountainside streams so that the chill waters flood across the bottomland meadows. They turn this water off by July fourth and wait two or weeks for the fields to dry, and the hay to grow. If there's any spare time when the haying equipment's all set to go, the ranchers take time off to fish for trout in the Basin's many well-stocked streams.

From the moment the hay's ready to harvest, the entire valley is caught up in the frantic rush to get it cut, dried, and stacked before the early-September rains. Spurred by this urgency, Big Hole ranchers have developed the most efficient haying operations anywhere. Not satisfied with regularly-available equipment, they have their own rigs specially built in the five custom shops that exist in the valley. In these establishments, mechanics like Johnny Krause, who runs a garage in Jackson, make 30 ft. buckrakes out of two normal-sized ones. On shortened truck chassis; they mount hoists to catapult hay up the beaver slides. The "beaver slide" method of stacking was itself first developed and used in the Big Hole. As a result of these, and other innovations, a single haying crew can gather and pile a 20-ton haystack in just 20 minutes and be on its way to the next.

At the end of the haying rush, it's time again to round up the cattle and to herd them down from the mountain pastures. Today the Basin's high-grade Herefords to to market via the huge cattle trucks that constantly ply the valley. But it wasn't too long ago that the Big Hole's cash crop had to walk to the shipping points at Divide, Butte, or Anaconda. By the beginning of the century winter-fed, grass-fattened Big Hole found a favored market as the only cattle athletic enough to stand the trek to Fairbanks, Alaska. To keep an appointment with a butcher in
the Alaskan mining city, a steer first had to travel to Seattle by train; thence via boat to Valdez. From Valdez, the cattle were trailed north through the central Alaskan wilderness during the season when the Arctic sun never set. The drive took twenty days over a trail so rough that the animals had to be equipped with horseshoes before starting out.

Fall and winter are seasons for relaxation in the Big Hole. There's no rush again until spring calving time comes around. With haying behind them, the ranch families get reacquainted at socials, showers, smorgasboards, and hoedowns at the Inn that the womenfolk have been saving up all during the busy summer. It's hunting season, too, and every rancher and cowhand has a favorite spot where, year after year, he goes to hunt the plentiful elk, deer, and bear.

Until a few years back, the snow which usually blankets the Basin for a good six months a year, cut off the passes and brought real isolation to its inhabitants. Nowadays the road's kept open, and winter's become a favorite time of year. Horse-drawn sleds are still used to haul the haystacks to the feedlots. But for speedy human transport in all depths of snow, the ranchers scoot across country in another locally contrived vehicle, the snowplane. These are propeller-driven, ski-mounted contraptions that look like airplanes minus wings. Like the specially-made haying rigs, snowplanes were conceived and developed by local mechanics. Nearly every Big Hole ranch boasts at least one of these gadgets, and they're widely used as deep-snow transport, --to go to school in, for looking at cattle, visiting neighbors, shopping, hunting, and racing. On Saturday nights you can see them lined up in front of the Diamond Bar Inn.

Sundays, as many as a dozen snowplanes zip out to the valley's
newly developed ski area six miles south of Jackson. This ski run is another typical Big Hole enterprise. When the ski club wanted to replace its rope tow with a bigger lift, they asked an outside outfit to make them a bid. $30,000 seemed like too much. So local mechanic Johnny Krause wizarded up a T-bar mechanism, and skiers and non-skiers alike worked to build a lift for a sixth of this cost. The result, in this fabulous valley, is the best skiing area between Sun Valley and Whitefish.
Dear Mr. Doug:

Sorry for the delay in answering your letter - been working outside for the last month and when I come home at night about all I do is relax. Anyhow you will find this a bit rambling but maybe some of it will be helpful to you.

What your Father told you about haying in the Big Hole Basin is 100% correct. Many outfits like Hirschey's, Chmows, Huntleys and McDowell's had 25 to 30 men working - sometimes more. They had 2 crews. Very common before the 1st tractor came in in '35 or '36 to see 10 or 12 horse machines mowing at one time. After all they only cut a 5 ft swath and they had hundred of acres to do before snow fall. We always hayed 30 to 40 days depending on the weather. In fact I remember it snowed 1 year before we finished. Dad always hayed the ranch joining us on a contract basis and it was a bad summer, the ranchers I mentioned above are still in
operation, only their ranches are much larger. The small ranches are gone — in most cases bought up by the neighbors.

My job involved whatever there was to do from raking, mowing, backraking, driving derrick horses (usually three) to milking cows and wrapping so to 60 head of horses. Always disliked mowing with horses because they always got sore shoulders and necks from the constant swinging of the tongue. See that county was all badger holes when the 1st Settlers came so it was tough on horses and machinery. They still don't use surfboards or bakers because of rough ground — also takes longer. You can stack them green and it won't mold but you would have a tough time running it through a barker, mostly all new machinery is reinforced and altered before being used — lots of breakage.

Wages were great during the depression — straight rakers or dump
Rakers made $1/day with board and room to plus a swim in the Big Lake River free at charge and no towel. The Crazy baker or Scratch baker might get another 50c/day if he was a good one. Stalkers made $1.50/1/day—now men 97 to 92 and the Tractor man made 95 to 97 1/day. With the Tractor we would take a 7 ft. swathe and then in the late 30's they came out with the trail mower that cut 7 ft. Did away with those as soon as more tractors came into being and people had a few more $. To buy them—just a little comment—we had to drain our tractors by Aug/1 or they would freeze up.

We all used to head for Wisdom on Saturday night—our old ranch is about one mile west of Wisdom. Anyhow we would dance until about 1:00 in the morning, then head for home and I would get my horse and go wrangle the horses because they had to be taught...
and harnessed before breakfast. Always had to watch the kids that worked 1 horse on the dump racks because they couldn't tell 1 horse from another.

I'd always get all day Sunday by godly, I'm not doing that again and didn't until the next Saturday.

Men always drew some money on Sat. and I was always at the end of the line. If mom had it she would give me all of it or I never asked for it. Those were tough times. In the early 30's men would work for room and board all they wanted was something to eat and a place to bunk.

Some outfits had a chore boy who usually worked year around but they all had a full time sickle grinder and blacksmith—look a lot of sickles, weeh sharpened to cut that wild hay. They quit using overshoes in the late 20's and started using
beaversheds which are still being used by all ranchers. An old boy by the name of Don Shad built the 1st ones - don't know who is building them now. It's a whole new ball game today. Those big outfits put up thousands of tons in 15 days. Really a sight to see.

The jungle was located between our ranch and the river just west of Wisdom. They changed the channel and built a new bridge so there is no longer the jungle. During the depression it would be packed with hungry but peaceful men waiting for hay gig and work for only a small number of them. They were fed in the bread line in Wisdom and my mom made quite a few sandwiches (on my spelling) and got a load of wood split. Like I said these men were peaceful and all they wanted was a job. There were a lot of funny
Things happened during haying. Some not so funny like a runaway team heading right for another team - Maker trying to fit the collar upside down catching the wrong horse - had one man that shackled and wouldn't take a bath but the fellows took care of that. Took him down to the river and threw him in.

Mom only bought supplies once a year - never had any fresh fruit or vegetables except in the fall - a few peddlers used to come in from the Bitter Root. I still can't stand dried apples.

Because of the badger hole all our saddle horses were raised there. One from the Flat Country would get you killed. Run em like hell and they would never hit a hole but break their stride and you had it. Like I said, I have talked on and on but hope it helps a little need more let me know. Sincerely,

George H. Stewart
Dec. 20, '82

Dear George--

Much appreciated your taking the time to handle my haying questions. The information looks dandy to me. If I get baffled as I work on the book in the new year I'll get back to you, but for now, I think that'll do it.

Again, thanks for coming to my aid--Merry Christmas and happy '83.

[signature]
We have your book "This House of Sky" and enjoyed it very much.
Dear Mrs. Abbey—

Thanks immensely for providing all the names you did, of people connected with haying in the Big Hole. For now, I'm writing some questions I'll mail to your uncle Ole and to your mother. Depending on responses I get from some other people who've answered my ads—Mr. and Mrs. Fred Else, among them—I may write later on to some of the others you suggested.

With luck, the book I'm writing will be published two years from now. It's kind of a slow process. I would think my earlier Montana book, This House of Sky, ought to be available at the Hamilton library. It's also in paperback, in the Missoula stores.

Again, my appreciation for your taking the time and trouble to help me.

best regards
Dear Mrs. Old--

Your daughter Billie, whether or not you know it, has volunteered you. She saw an ad I ran in the Rawlins Republic asking to hear from people who'd been involved in haying in the Big Hole during the 1930's, for the sake of a novel I'm writing about Montana during the Depression years, and she thought your experience of taking in washing from hay hands might help me. I don't know if you've read my previous Montara book, This House of Sky, about my growing up in the White Sulphur country, but I'm trying again in this one to be accurate as I can about how people lived, and I wonder if you can help me on details such as these:

--Did most hayhands of the time wear bib overalls, just shirts and jeans? If they were "bibs," were they of denim, like blue jeans? And if they were just pants, were they blue jeans or something else? I seem to remember pictures of my dad (this is all a bit before my time; I was born in 1939) wearing some sort of light tan trousers in those years. And what about their shirts--denim, cotton, or what? Solid color, usually, or plaid?

--When I was a bale piler on Ringling ranches, I recall wearing out pants across the front of the thighs, from hafting the bales against there. Do you recall any distinctive wear-spots on hay hands' clothing--the seat of rakers' pants worn out from those old metal seats, for instance?

--What did you charge for the washing?

--What kind of washing equipment did you have--gas-engine washing machine, for instance? How many guys might you wash for at once, and how many line-loads of wash would you have on a really busy day? What day of the week did the guys usually bring you their dirty clothes--Saturday, Sunday, or what? Did most of them simply bring a wad of dirty clothes, or would they have laundry bags?

--I remember, from living with my grandmother in Ringling, a bare patch where she always emptied the wash water; I guess the soap killed the vegetation there. Is that accurate--was there always one specific place where the water got dumped, and that spot always barren because of that?

--Finally, did the hay hands spent the rest of the year in any chosen job(s) you know of--work in lambing during the spring, say, or go on to the wheat harvest somewhere? And did quite a number of the same guys show up for haying each year, or were there usually a lot of new faces each summer?

Beyond these specific points, I'd happily have anything that particularly sticks in your mind about the hay hands--anybody who was finicky in any way about his laundry, any incidents or accidents you recall. That is to say, anything you'd like to tell. As I'm writing fiction, of course actual names don't matter.

I hope all this isn't too much bother. Both my mother and grandmother worked all their lives on ranches--my mother Berneta (Ringer) Dog cooked in the Big Hole one summer, though I have no idea where--and I very much wish they were alive to be asked.
Dear Mr. Heggarlum—

I hope you don’t mind that your niece, Billie Abbey, volunteered your name and address to me. She saw an ad I’ve run, asking to hear from people who put up hay in the Big Hole in the 1930’s, and thought you would be a good source.

What I’m at work on is a novel about Montana during the Depression years. It’ll take place in the summer of 1939 and the setting will be up in the area around Choteau and Dupuyer, but a number of my characters will have gone through memorable times in other places of the state—worked on the Fort Peck dam, fought grasshoppers in the Havre country, and so on. At least one of my characters I’d like to have worked on a haying crew in the Big Hole, and so I need to be accurate about such questions as these:

—My own father hayed in the Big Hole sometime in the Thirties (which is a little before my time; I was born in 1939), and while I don’t have any details, I recall him telling of what sounded to me like a colossal haying crew—a dozen or fifteen guys on horse mowers, for instance. Can you recall any ranches with crews that big, and what the names of those ranchers were? If there were crews that big, about how many tons of hay would they have been putting up, on ranches that size?

—I’m told that power buckrakes began to appear in the Big Hole in the Thirties. Does that jibe with your memory? If that is when they showed up, can you recall what the opinion of them was—were people generally impressed, or did they think they were just a new gadget which broke down a lot of the time?

—Can you remember what the haying wages were in the Thirties? Did the guy on the stack and/or the mower man get paid more than the rest of the crew?

—Finally, I’ve been told that hayhands would start showing up, I guess in Wisdom and Jackson, soon after the Fourth of July to wait for the start of haying in a week or so, and that they would camp, or "jungle up," while waiting. Do you recall anything about those encampments of hayhands—whether they simply slept on the ground in their bedrolls, or had tents; where the men mainly came from—that is, where they had wintered or worked during the spring; what their cooking arrangements were, and so on?

Beyond those specific points, I’d happily have anything that particularly sticks in your mind about those haying seasons—how a particular cook fed, or anybody memorable among the crew, or any accidents or incidents you witnessed. That is to say, anything you'd care to tell. As I'm writing fiction, of course actual names don't matter.

Many thanks.
Dear Mr. Doig,

According to your ad in the Ravalli Republic you want to talk to someone who worked on a haying crew in the Big Hole in the late 1930's. My uncle, Ole Hegelund, 510 S. Dakota St., Dillon, Montana, came into the Big Hole in the late thirties, and worked for a time on various ranches before and after marrying my aunt, Grace Else. He later bought his own ranch there. He has a varied memory of Big Hole stories.

I wonder though if you might not like to talk to my mother. In 1936 she and my father, a Big Hole rancher, were divorced and Mother, my sister and I moved into Wisdom. At that time she took in washing. Her main customers were hay hands. We also had tramps come to the house for a hand-out frequently. Both Mother and Father came from ranching families. Besides the Hegelunds we are related to the Lawrence, Else, Bacon, Ritchell, Hopkins and Pendergast families. All of these are old families in the Big Hole.

Mother frequently corresponds with a gentleman named Glen Cool from Livingston, MT who came to the valley and worked on ranches during The Thirties. (Letter 1938)

My mother's name is: Mrs. James (Lucy) Old, 1031 Antimony St., Butte, Montana. 59701.

My uncle, Ernie Davis, worked on Big Hole ranches before and after marrying my aunt, Nina Lawrence, but he is now deceased. She was raised on the ranch, and worked with him on a ranch after their marriage before moving to the Bitter Root Valley near Corvallis, MT. (They left the Big Hole about 1939.)

My cousin, Bill Pendergast was born near the Big Hole. As a boy he spent time on his uncles place in the southern part of the valley. You could contact him at P.O. Box 524, Pinehurst, Idaho. He hayed in the valley before the war.

My uncle, George Else, also lives here in the Bitter Root now, but he worked full time for his father except for brief times when he worked in Butte. He knows an awful lot of stories about the Big Hole since he was born there in a log cabin.

I did not start haying until 1944, so am a little behind what you want. I do remember the people who came into Wisdom during the depression. Some of them stayed many years, others drifted on. We got a lot of real good horsemen in those days. I remember the Miller (Charlie Miller) ranch had tractors as did Don Albee. Most ranches stuck to horses through the war.

I hope to get a chance to read the book you are working on now. I have been looking for your other one. My cousin, Joyce Tateca says it is great.

Hopefully these names will be of some use to you.

Sincerely,

Billie M. Lawrence Abbey
Mrs. Elliott Albee
If you would like the address of George Else or Nina Davies please let me know. I am not sure what kind of information you are seeking. Possibly they would be of no help to you.

G. M. Abbey
Nov. 17, 82

Dear Mr. Doig:

Not really sure of what type of information you are looking for with regard to your add in our local paper. (excuse spelling)

I was born at Wisdom in 1920 and my folks ranched there until 1946 when we moved to the Bitter Root.

If you were there during the bread-line days you know it was tough.

If I can be of any assistance let me know.

George M. Stewart
Box 1428 (8)
Hamilton, MT 59840
Dear Mr. Stewart—

Many thanks for taking the time and trouble to answer my ad. What I'm at work on is a novel about Montana during the Depression years. It'll take place in the summer of 1939, and the setting will be up in the area around Choteau and Dupuyer, but a number of my characters will have gone through memorable times in other places of the state—worked on the Fort Peck dam, fought grasshoppers in the Havre country, and so on. One of my characters I'd like to have worked at haying in the Big Hole, a summer or two, and so I need to be accurate about such questions as these:

—My own father hayed in the Big Hole sometime in the Thirties, and while I don't have any details, I recall him telling of what sounded to me like a colossal haying crew—a dozen or fifteen guys on horse mowers, for instance. Can you recall any ranches with crews that big, and what the names of those ranchers were? Where did you work yourself, say, in the summers of 1935-39, and what job(s) did you do in the haying? This may not apply if you were working for your folks, but do you remember what wages were? Did the guy on the stack and/or the mower man get paid more than the rest of the crew?

—My own memories of haying could stand any refreshing you can provide! I recall the jobs as mower man (with choreboy sharpening the sickles), dump raker, scatter raker (sometimes called scratch raker?), power or horse buckraker, stacker team driver, and stacker(s). Have I forgotten any? And did they have different names than these, in the Big Hole?

—In the White Sulphur country we mostly used overshot stackers, but am I right that beaverslides were most common in the Big Hole? Any idea why, if so? Also, would most of that country have been wild hay in the late 1930's, or alfalfa? And just out of my own curiosity, the last time I was through the Big Hole, three or four summers ago, there still was a lot of loose stacking going on instead of baling; why is that?

—Finally, I've been told that hayhands would start showing up, I guess in Wisdom and Jackson, soon after the 4th of July to wait for the start of haying in a week or so, and that they would camp, or "jungle up," while waiting. Do you remember anything about those gatherings or encampments of the hayhands?

Beyond these specific points, I'd happily have anything that particularly sticks in your mind about those haying seasons when you were a kid—how a particular cook fed, or anybody memorable among the crew, or any accidents or other incidents you witnessed. That is to say, anything you'd like to tell. As I'm writing fiction, of course actual names don't matter.

best regards
When you were cooking for a haying crew—at the Clemow ranch, say—how many men was that? Did you have help—a flunky of some kind? If so, was it a teenager or an adult? Did you have to wash the dishes as well as cook?

I imagine you used a wood stove? If so, what kind was it, and what size—just an ordinary kitchen range such as you'd find in most houses of the time, or something bigger such as a restaurant might use? Who supplied the firewood—the choreboy?

What would a typical day's "menu" have been—that is, what did you serve for breakfast, and what are some of the things you might have served for dinner and supper? (Was the noon meal called "dinner," as it was in the White Sulphur country where I grew up?) Did you serve pretty much the same thing for every breakfast—that is, did the hayhands always want hotcakes or did you alternate, with biscuits or something? What kind of pies did you usually make? I seem to remember there'd be dessert (a different one) for both dinner and supper—is that right? Were garden vegetables ready by the time haying started?

When the men were done eating, did they just leave their plates, or stack them somewhere?

Did the hayhands in any particular job—the men on the stack, say—have a reputation for eating more than the other guys, or was it just individual cases as to who had the biggest appetite?

I appreciate your offering to help me with questions such as these. Both my mother and grandmother worked as ranch cooks—my mother, Berneta (Ringer) Doig, I think in fact cooked in the Big Hole one summer, though I have no idea on what ranch—and I very much wish they were alive to be asked.

best regards
Dear Mrs. Dingley--

Thanks very much for taking the time and trouble to answer my ad. You truly provide a whole family of sources. Because I've heard from a number of other people about having in the Big Hole, I think I'll confine my questions to your husband and his sister who was a cook, rather than pester everybody. I'm enclosing a few questions I'd ask you to pass to your sister-in-law who cooked on the Glascow place, if you would (along with a stamped envelope for her), and I wonder if your husband could help me with these:

--In the White Sulphur country we mostly used overshot stackers, but am I right that beaverslides were more common in the Big Hole? If so, any idea why? I've never worked around a beaverslide, but they look to me as if they could build a higher stack than an overshot; do you have any memory of the dimensions and/or tonnage of the usual stack on the ranch where you hayed? Also, a beaverslide looks to me like a tremendous job to move. Did you simply slid them with a team of horses, as we did with an overshot, or did a beaverslide have to have a set of wheels? Also, did the "slide" stay in the air when the stacker was moved, and if so, wasn't it a topheavy apparatus to try to move?

--Were you putting up mostly wild hay or alfalfa in the late Thirties? Mostly creek-bottom meadows?

--Finally, I've been told that hayhands would start showing up, I guess in Wisdom and Jackson, soon after the 4th of July to wait for the start of haying in a week or so, and that they would camp, or "jungle up," while waiting. Do you remember anything about those encampments of hayhands--whether they simply slept on the ground in their bedrolls, or had tents; where the men mainly came from--that is, where had they wintered; what their cooking arrangements were, and so on?

Beyond those specific points, I'd happily have anything that particularly sticks in your mind about those haying seasons when you were a kid--how a particular cook fed, or anybody memorable among the crew, or any accidents or incidents you witnessed. That is to say, anything you'd like to tell. As I'm writing fiction, of course actual names don't matter.

I appreciate your inquiry about helping with my research, Mrs. Dingley, but I've always found it as much work to farm it out as to do it myself. I'd urge you instead to work on your own writing; persevere, as you said. The one piece of advice I ever have is that a manuscript does not have to be submitted to one publisher at a time, as publishers would like to have
the world believe. I'm a firm believer in taking the manuscript to a good photocopy machine, making half a dozen batches, and sending them all out at once; and then another half dozen if those come back, and so on. That's what my agent and I did with the manuscript sample of House of Sky; the 13th editor took it.

Good luck, and thanks again.

Dearest [Name],
November 10, 1982

Mr. Ivan Doig
17021, 10th Avenue, N.W.
Seattle, Washington  98177

Dear Mr. Doig:

This is in response to your classified advertisement ran in recent issues of the Dillon Tribune Examiner.

I've just moved to Dillon from Phoenix, Arizona, but my husband is a long time resident. He worked in the Big Hole Basin on a haying crew during the thirties. His two brothers and two sisters, all now living in Dillon, also worked on haying crews in the Big Hole, either in the early or mid thirties. They have interesting stories to tell. My husband was a teenager, but his brothers and sisters were adults. One sister was a cook while her husband was either a foreman or a ranch manager of a rather large ranch near Jackson. The ranch name was Clemow at that time. I'm sure it's changed owners since then.

I've been to Bannack. Have you seen the linoleum on the floors and walls of some of the old buildings? I've been told that it is from the squatters who took up residence there during the depression. The Conservation Corps experience of many teens and young adults in the thirties here in Montana is also an interesting story. These people are now senior adults.

Would you like some help with your research for the book? I've written two novels, outlined three more, and presently have one full manuscript being considered for publication by an eastern editor. I've collected my share of rejection slips, but plan to persevere until I make the breakthrough.

I've read your book, THIS HOUSE OF SKY, and loved it. I envy your having grown up in this great state. If my relatives or I can be of help to you, let us know.

Sincerely,

Mrs. Sally A. Dingley
P. O. Box 212
Dillon, Montana  59725