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A FAVORABLE REPORT  
ON THE  
PROPOSED BRUNEAU ADDITION  
TO INDEPENDENCE NATIONAL FOREST  
NEVADA

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By ·

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TO INDEPENDENCE NATIONAL FOREST  
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Location and Area

The country to be described under the above name lies in Elko County, northeastern Nevada. It comprises the high mountain region of that part of the State and extends north to the State line and south to where the mountains drop away toward the heads of Owyhee and Bruneau rivers. The high range of mountains at the head of the North Fork of Humboldt River was examined in the fall of 1904, and comprises the southwest arm of the proposed reserve. On the west is the Owyhee desert, on the north the deserts in Idaho, and on the east the high, broken Salmon River grazing country. The area, including the North Fork addition is 650,960 acres.

Topography

A curious feature about the State of Nevada is that nearly all the important water systems either arise outside the State or arising inside, flow through the State and sink in the tremendous stretches of desert in the interior. Three exceptions to

this rule are the Bruneau, Owyhee, and Salmon rivers. These streams rise in the northern part of the State and flowing north, finally reach the Snake River in Idaho.

The country in the proposed reserve has a general altitude of 6,000 to 7,000 feet and the surrounding country except in the northwest and north is mountainous as far as the eye can reach. Three groups of mountains are worthy of special attention because they bear the only considerable growth of coniferous timber in the whole northern part of the State. The South Fork of Owyhee River and the North Fork of Humboldt River, Bull Run Creek, and the western part of the East or Middle Fork of Owyhee River watershed all head together in a group of mountains over 9,000 feet high. This range has a general north and south trend of forty to forty-five miles with an extreme altitude of over 10,000 feet. The mountains are very rugged and broken from a point near the extreme head of the South Fork of the Owyhee River northward to the head of Bull Run Creek. North of the latter point the mountains slope off more gradually to Duck Valley in the Indian Reservation.

The second group of mountains is much lower in altitude and lies between the East Fork of Owyhee and Bruneau rivers, culminating in Merritt Mountain in Township 46 north, Range 54 east. Five important tributaries of the Bruneau and Owyhee rivers arise at Merritt Mountain, the country sloping off southerly to Sunflower Flat, a high mountain basin at the head of Alleghany Creek and thence southward to the Owyhee

River. On the north the mountains extend in practically the same range down to Silver City, Idaho. Merritt Mountain is above 9,000 feet high.

The third and last group of mountains may be taken as all one range, the separate parts being known as the Bruneau, Jarbidge, or Coon Creek mountains, according to the local preference in names. This group lies in the shape of a rough letter "L", the top of the L extending between Bruneau and Jarbidge rivers from the State line to Marys River and the horizontal portion running east and west between Marys River on the south, the western prongs of Salmon River on the east, and the different forks of Jarbidge River on the north. These mountains are rougher and higher than the North Fork mountains, the highest point (probably one of the highest points in the State) being Jarbidge Peak between the forks of Jarbidge River. It reaches an estimated altitude of over 11,000 feet.

The country between the three mountain systems is a mass of smooth-topped, grass-covered mountains opening only at rare intervals into narrow stretches of valley less than a half mile wide and seldom over two miles long. The northeastern part of the withdrawal as well as the country extending north into Idaho is a large, high plateau. Jarbidge River and its tributaries cut this plateau into parallel strips, the streams having cut for themselves deep narrow canyons to a depth of 200 feet in places. This country is a desert fit only for stock range as there is no way of getting water out of the

canyons onto the bench lands and the canyons are merely rocky defiles wide enough for the streams themselves to pass through and only in a few places allowing the stock to get down to water.

Neither Bruneau nor the East Fork of the Owyhee rivers have their headwaters within the proposed reserve. They rise in somewhat low, irregular groups of mountains at the south and southeast of the proposed boundary. These hills are devoid of tree growth and unsuited in every way for forest reserve purposes.

Note: The Duck Valley Indian Reservation consists of a horseshoe-shaped mass of rolling grass-covered mountains with Duck Valley on the East Fork of the Owyhee River, within the shoe. This valley is one of the largest, best situated, and most fertile valleys in all of northern Nevada or southern Idaho. The whole reservation is devoid of timber except at the extreme southeast end. The high portions of the White Rock mountains extend down at this point for three or four miles into the Indian Reservation. The proposed boundary of the Bruneau Forest Reserve includes the balsam fir and aspen on these higher slopes.

#### Climate

Official weather records are unobtainable. The points of observation are San Jacinto (the home ranch of the "Shoesole" outfit) and the towns along the Southern Pacific Railway, none of these records being complete or applying to

conditions in the mountains proper. San Jacinto has 43.9 degrees for the mean annual temperature, 100 degrees for the highest, and -17 degrees for the lowest. The annual rainfall is 9.19 inches. The country within the proposed reserve is at a greater altitude, hence the climate is more severe.

The Bruneau country has the reputation of having as heavy a snowfall as any part of the State. At the settlements on the river the snow falls in October and remains off and on until June. On the 5th and 6th of June, 1906, it snowed about six inches at the post offices of Gold Creek and Rowland. From November until some time in March the mail between Gold Creek and Rowland has to be carried across the Meadow Creek divide on snow shoes. Snow also blocks the mail route between Tuscarora via Columbia to Mountain City.

#### The Forest

The northern part of Nevada generally speaking is as treeless as the plains region, the higher mountain ranges alone of all this region providing moisture enough for a scanty growth of aspen, some balsam fir, scrub pine, juniper, and mahogany. The rest of the country is sagebrush and grass. The proposed reserve has less than 25 per cent of its area in forest cover of any kind and only some 5 per cent of this 25 per cent is classed as commercial forest, the trees being used for mining timbers at the mines around White Rock and Edgemont. The aspen and mahogany are used by the ranchmen for fence posts and fuel.

A slightly different classification has been used for this country; balsam fir (Abies lasiocarpa) has been considered as commercial forest, while aspen (Populus tremuloides) has been distinguished from the other classes of woodland such as mahogany and scrub oak brush. A brief description of the three classifications follows.

#### Commercial Forest

This type comprises balsam fir with aspen in mixture and is found only on the north slopes of the higher mountains above an altitude of 3,500 to 9,000 feet. In a few places such as Pine Mountain in Township 45 north, Range 56 east and Pine Mountain between the forks of Deer Creek, there are scrubby weather-beaten clumps of mountain pine (Pinus flexilis). Balsam reproduces well and trees of all sizes are found from small seedlings up to trees 2.5 feet in diameter breasthigh. Pine reproduction is poor.

#### Aspen Type

Aspen is the prevalent species on the proposed reserve and when timber is spoken of this makeshift for fence posts and fuel is generally meant. It is found in dense, narrow streaks along the gulches and creek bottoms above an altitude of 7,000 feet, also on some of the higher slopes. Aspen needs a certain amount of moisture in the ground and the influence of the underground snow drainage is seen in the pockets and depressions where it is found. Nearly all the young aspen is bent and crooked from the snow but the mature trees are as

a rule straight and fairly tall. It would seem that this tree has the power of straightening itself after reaching a height above the danger from snow. The snow is probably the natural selective influence that keeps the aspen within its present restricted limits.

#### Mahogany Type

Extending down the east slope of Merritt Mountain six to eight miles and for eight to ten miles parallel to the mountain north and south is a stretch of country known as "The Mahoganies." The north and south slopes of the network of draws, gulches, and canyons comprising this country is covered with a heavy growth of mountain mahogany (Cercocarpus ledifolius) with some patches of Ceanothus velutinus as undergrowth. This species of the Rosaceae reaches a maximum development in the Bruneau River country. The trees are seldom over fifteen feet in height but often reach a stump diameter of 8 to 12 inches and grow so close together in places that like the juniper brakes in parts of Colorado and Utah, they are a great nuisance in riding after stock. Mahogany is found also in some quantity on the south slopes of main Jarbidge River above the forks. Here the trees are even larger than in the so-called "Mahoganies," some trees being over a foot at diameter, breasthigh and having a clear length of 10 to 15 feet.

In addition to what have been designated as tree species, there is the usual growth of willow and choke cherry near the creek beds and Ceanothus velutinus brush on some of

the slopes. The last is an annoyance to the sheepmen as will be discussed later on.

The balsam fir type will average 3,000 feet to the acre, the trees being limby and the ones sought for mining timbers extremely scattering. The best of it on the North Fork mountains has been cut already for the mines at Edgemont and other places in the Bull Run Mining District. That on Merritt Mountain is used to some extent by the mine on McDonald Creek, while that on the Bruneau or Jarbidge mountains is untouched excepting what was cut for the old Martis Mining District. Most of it is accessible for logging by team.

Stumpage is of course unknown and no precedent for stumpage valuation can be ascertained except in the few cases where the mines were forced to settle for their cutting by the agents of the General Land Office. The timber is very valuable to the mines and they contract with the ranchmen to get it in for them, thereby saving an expensive seventy-mile haul from the railroad. A fair stumpage price would seem to be \$3. a thousand.

The groups of fir contain trees of all sizes and ages, the old trees being in the middle and the younger generations descending by concentric rings to the outside. Only the large trees are salable which leaves plenty of seed-bearing trees for reforestation. The trees for cutting must be marked and the marking done with sufficient care to be sure that the small area of commercial forest does not become smaller.

## The Forest as a Protection Cover

The larger streams as well as the smaller ones that flow throughout the dry season arise in the higher mountains where the watersheds are more or less covered with fir, aspen, or brush. But the country is so high and the snowfall so great that the influence of tree growth on the water run-off is not so apparent as it would be in a lower country.

The small amount of land fit for farming is practically all "under water" at the present time and no large irrigating schemes are being promoted. Should the time come when it would seem feasible to put large stretches of the desert under water, Bruneau and Jarbidge river canyons afford ideal locations for storing the flood waters. It is claimed by some of the settlers that the water supply is visibly decreasing because of the heavy sheep grazing. This statement is merely quoted for what it is worth. There were no signs of gullying on the grass-covered mountain sides noticed in the spring of 1906 nor any streams dry that used to run a fair head of water. Undoubtedly the country was seen at its most favorable time and assertions that the water supply is becoming less because of the sheep must be laid to range jealousy. The proposed reserve and its attendant problems is above everything else a range question and will be discussed fully under its proper head.

## Industries

The industries are sheep and cattle raising, ranching, the raising of hay to feed the cattle, and mining. The sheep and cattle industry will be discussed under the head of grazing.

### Ranching

Nearly all the ranches in the proposed reserve are on Bruneau River, Meadow, and McDonald creeks tributary to the post office of Rowland. On these streams the hills open up into narrow stretches of level ground and here sixteen ranches are situated. They raise vegetables for their own use and alfalfa for wintering the cattle and horses in the stormy months. These small ranches in the pockets of the canyons are sheltered from the severe winter weather and the warm southern exposure keeps the surrounding ridges comparatively free from snow. Two crops of alfalfa are raised and stock would do very well if it was not for the sheep crowding the outside range. Hay is worth about \$6. a ton and everyone is able on his twenty or forty-acre field to raise enough to take the weak and young stock through the winter. However, since the sheep have been coming in in such tremendous numbers in the last five years, the cattlemen complain that they can not get their stock fat enough during the summer to winter out hence they are forced to bring in a greater number for feeding than their hay will allow. The nature of the country is such that they can never get water on more than a small percentage of their ground so

unless the outside range is at its best there is a distinct loss of money involved. Cattle-raising is the only form of ranching possible unless they should go in for sheep or goats which require a greater initial outlay and an increase of running capital. They are so far removed from a market that growing oats is not possible as is the case in the North Fork and White Rock valleys, where they have a comparatively good road to the railway.

On Trail Creek, a tributary of the East Fork of the Owyhee River, rising in the Bull Run or White Rock mountains, are three more ranchers. They have the same complaint to make about the decreased carrying capacity of the range due to the sheep. There are also a few small ranches near Mountain City and the mouth of California Creek. All of these ranchmen are squatters on unsurveyed ground and the location of their places on the map can be only approximate. Bull Run Basin at the foot of the Bull Run mountains is another small cattle-raising community.

East of the Bruneau or Jarbidge mountains are some six or seven more ranchers on unsurveyed land near the proposed boundary. Their water is scarce and they rely on the large stretches of desert between the different prongs of Jarbidge River to bring their stock through the winter. This desert has for a long time been a famous horse country and they raise a good many horses as a consequence. North Fork and the upper Owyhee valleys are outside the reserve on the southeast

while White Rock Valley is on the west. Some of the best ranches in the county lie in these valleys for the land is at a lower altitude, lies in better shape for cultivation, and has been settled for a long time.

On the east and south are the large outfits that get possession in the early days by State selection and forest reserve script of all the available springs and land. Marys River on the south is entirely controlled by the Marys River Land and Cattle Company, a corporation with headquarters at the town of Deeth. Sun Creek, Camp Creek, Cottonwood Creek, and Canyon Creek headwaters of Salmon River within the reserve are completely controlled by O'Neill Brothers, large sheep, cattle, and horse men of Wells. Lower Salmon River and the country eastward to the State line are almost exclusively the property of Sparks and Harrold, one of the old-time stock outfits.

### Mining

Elko County like all the other counties in Nevada had its brief mining day only to receive the customary setback from which it has never recovered in the last twenty or thirty years. The last four or five years, however, has seen a renaissance in mining activity in the State, beginning at the Tonopah region and extending in every direction. Now even in the extreme northern counties old abandoned properties are being reestablished by new capital. The North Fork or White Rock Mountains are highly impregnated with mineral and have been worked periodically since Tuscarora was a flourishing mining camp. Columbia, Edgemont, Martis, and Gold Creek have

W. Slopes of  
Indep Range

Charleston,  
S of Jarb. Mtn

Bureau

all in their day been more or less prosperous. At the present time the new activity has struck the Bull Run Mining District and in June, 1906, there were 100 men working in the mines at Edgemont, a smaller force at the McDonald Creek mine on the north slope of Merritt Mountain and a few men doing development work around Mountain City, Bull Run, Blue Jacket, and California creeks, also Gold Creek and the Martis. The ore is a lead and silver-bearing quartz, carrying fairly good values in gold. There was at one time a little placer mining on California, Bull Run, Upper Bruneau, etc., but Elko County was never famous as a placer country. About a half mile from the mouth of California Creek is a quartz mill that is not working because of some legal difficulty among the stockholders. It looked to be about a ten-stamp mill. The need for reserve timber in the mines has already been discussed.

W.  
Side  
of  
Indep.  
Part

#### Settlements

North Fork and the Upper Owyhee valleys are cattle-raising communities, 50 to 60 miles from the railroad at Elko. This valley (for it is really all one) is well settled and has its small ranch post offices at Butler, North Fork, etc., a small hotel and saloon being at the latter. Gold Creek, 70 miles from Elko is a sheep-outfitting point with a store, post office, hotel, and saloon. Rowland is merely a ranch post office, 90 miles from Elko and 90 miles from Mountain Home, Idaho. The desert ranches 15 miles distant on the Jarbidge

come to Rowland for their mail. Twenty-five miles east and a trifle north of the desert settlement is Three Creeks, Idaho. This is also a sheep outfitting point with a store, hotel, post office, and saloon, getting the mail by stage from Mountain Home. The post office of O'Neill, outside the southeast boundary of the proposed reserve is O'Neill Brothers' home ranch. The mail comes once a week in summer from Wells on the Southern Pacific Railway.

Within the proposed reserve on the northwest side is Mountain City, a town of about thirty inhabitants with a store, saloons, hotel, post office, etc. It is 30 miles from Tuscarora and 80 miles from Elko, depending on the mines and to some extent on the sheepmen for its existence. White Rock is the ranch post office for White Rock Valley; Columbia and Edgemont are mining post offices. The Trail Creek ranches get their mail from the mail route between Tuscarora and Mountain City.

Elko is the outfitting point for practically the whole region, the freight coming in and out that way because the roads are so much better than northward into Idaho.

The table of alienated lands follows:

Patented lands	320 acres.
Homestead entry	1,760 "
Squatters	1,760 "
Patented lieu land	<u>240</u> "
Total	4,080 acres

In addition there are about 400 acres in Township 45 north, Range 55 east (unsurveyed) held by Jenkins, a sheepman, and  
*Sunflower Flat area.*

several hundred acres of so-called placer ground along the creek bottoms held by the other large sheepmen. These "sheep mines" as they are called are a bare-faced fraud.

### Roads

The whole country is covered with roads, passable at any rate to sheep wagons in summer and equal to mountain roads in like localities of equal altitude and scant settlement.

The grass-covered ridges offer no difficulty anywhere to horseback travel, the only parts inaccessible to horses being the barren tops of the higher mountains. No immediate work will be required from the Forest Service in either road or trail building.

The distances from the railroads are very great and the country shows a corresponding lack of development. The main line of the Southern Pacific is about 75 miles south of the reserve and the Oregon Short Line about the same distance to the north in Idaho. The Minidoka Branch of the latter is even nearer to the northeast end of the proposed reserve. But, as already mentioned, the main outlet is southward to the Southern Pacific and the wagon roads across the Idaho deserts are seldom traveled because the lava rock renders them so extremely rough. In addition there is practically no settlement on the way or any water during the summer season.

### Lumbering

There is not enough timber to cause any activity in the lumbering line and scarcely enough to provide for the growing local demand. The mines are the principal consumers of timber, their consumption being confined entirely to timbers in the rough. There is one sawmill in the White Rock Mountains cutting for the local demand in the valley. The patented land on Silver Creek was patented for its timber under the Timber and Stone Act for use by the settlers and mines. This was a good investment as their only competitor is the coast lumber hauled in by the railroad, costing from \$30 to \$40 a thousand by the time it is delivered.

White fir, the only lumber tree in the whole region, probably makes as worthless lumber as can be found anywhere for it is subject to decay and full of knots besides being high-priced. The buildings on nearly all the newer and smaller ranches are made of cottonwood logs covered over with sod roofs.

### Grazing

The proposed Bruneau Reserve is a grazing reserve with greater difficulties and problems present than is usually the case in like areas. The stretch of country locally known as "The Bruneau" throughout the State, four-fifths of which is included in the proposed reserve is the newest, best, and largest stretch of summer sheep range in this part of the United States. Its only rivals are the mountain ranges in northern Humboldt

County and the Stein Mountains in Harney County, Oregon. But these latter have been used longer than the Bruneau and are correspondingly more fed off. After shearing in late spring when the sheep are all heading northward, questioning as to their destination will nearly always bring from the herder an answer of "The Bruneau."

The pioneers in the stock business were the enormous old-time outfits with their ranches in the North Fork and Upper Owyhee valleys, White Rock Valley, etc. They ran their cattle on the deserts in winter and on the high grass-covered ridges in summer and the little cattleman was almost unknown. The hard winters about 1890 and the immediately subsequent period of hard times caused a reorganization in the cattle business. The small owners came in with their better grades of winter-fed stock, the expense of winter-feeding being less than the annual loss on the deserts under the old way.

At present the cattle business is the sole means of support for the small settlers within the proposed reserve and of those in the valleys near the reserve. The settlers on the Bruneau River all have from 20 to 100 head which they run on the reserve throughout the entire year, merely feeding some of the cows and young stuff for three or four months in the winter. The peculiar topographic conditions that enable them to do this in a region of such heavy snowfall has already been mentioned. The desert ranches in the northeast end will be dependent on the reserve for their summer range as will also a large part of the

ranchmen in White Rock and North Fork valleys. About 18,000 cattle and horses, all told, will be affected by the proposed reserve and no distinction should be made between those using the range only in summer and those using it the year round. This is a large number of cattle and horses but not anywhere near what the range is capable of supporting if it were not for the sheep.

A great many cattle still run out in winter on the Owyhee Desert and the large deserts to the north in Idaho, cattle from as far distant as Paradise Valley on the Little Humboldt River using the former range. They are rounded up in the spring and the larger portion driven back for the summer on the mountains in the proposed reserve.

The Bruneau country is an ideal horse range and formerly a great many horses were raised. After the break in the horse market a few years ago the horse owners did not go to the expense of rounding up their horses for a long time. The result on the "Diamond A" Desert especially was hundreds of head of wild horses, many of them unbranded and all inbred and undersized. The last two or three years have brought such an unusual demand for horses of all descriptions, even for what are known on the market as "western horses" that the supply of wild horses is almost exhausted. Horses bred at present are ten to twelve-hundred-pound animals as the demand for heavy horses is just beginning to be taken into consideration by the ranchmen.

The Bruneau country is a summer sheep range, the sheep wintering out for the most part of the deserts to the south in Lander, southern Humboldt, Churchill, Eureka, and even White Pine and Nye counties. The owners all live at a distance from the proposed reserve, nearly all the small owners being nomadic "Bascos" with no ranches of their own and paying no taxes.

There is an interstate tax on sheep between Idaho and Nevada, also a quarantine law that causes sheep coming from one State to the other to be inspected for scab and other diseases. Sheep are now very free from scab. According to the list of the Scab Inspector of Elko County, there are 392,350 sheep using the proposed Bruneau Forest Reserve for some part or all of the time between the first of June and the last of September. Their names and the number of sheep owned by each as passed on by the inspector is as follows:

C. H. Duberg	11,000
Noble, Smith & Co.	8,100 <i>Wm. Dub.</i>
J. S. Martin	3,800
M. J. Triguerra	5,500
Joe Pence	3,000
Arthur Pence	4,500
A. Rogerson	3,200
T. Higgins	800
J. T. Pinkston	1,950
John Etchevery	3,800
Arimosby	4,000

Frank Triguerra	3,000
L. L. Bradley	23,750 <i>via biog.</i>
Neil and Capell	6,600
J. Bengelcher	11,600
J. G. Taylor	22,400 <i>via biog.</i>
A. Forland	9,000
W. W. Williams	60,000 <i>via biog.</i>
J. B. Williams	9,500 <i>via biog.</i>
J. Altube	11,250
T. Nelson	24,900
C. Tellerforo	4,700
G. Kaiser	16,500
A. Motta	3,400
R. J. Jenkins	50,000
Bicente and Co.	4,000
Elko Livestock Co.	4,000
C. Howard	3,300 <i>via biog.</i>
H. Dunn	10,000 <i>via biog.</i>
P. Laca	3,900
M. Hasquette	5,800
Othalepo and Co.	3,100
P. Corta	2,500
Irigoyen	2,500
Lemaire and Co.	3,400
J. Eyran	4,000
F. Capdeville	3,000

M. Amarel	4,500
G. Sabala	12,900
M. Satica	2,800
J. Bentaverg	2,800
Lopex Brothers	4,600
Stewart and Co.	<u>4,000</u> ✓ w/ b109
	392,350

In addition, O'Neil Brothers from Sun and Camp creeks also run some of their sheep within the limits of the proposed reserve. ✓ w/ b109 Keogh and Co. from over by the Ruby Mountains, and ✓ w/ b109 Ramsey from Idaho used to run sheep on the Bruneau country.

Nearly all the sheepmen come from the central part of the State and very few of them pay taxes in Elko County. ✓ w/ b109 Williams and ✓ w/ b109 Jenkins the two largest owners come from Fallon and Battle Mountain respectively. The Pence Brothers and several others whose names were not ascertained come from Idaho and already pay the State of Nevada license for outside sheep. Williams is the only one that has any kind of a legitimate title to land within the proposed reserve having bought out a squatter's right to a homestead on Meadow Creek. The other large owners all hold alleged placers land on the creek bottoms for sorting corrals and to protect themselves from the others. This placer ground will be discussed more fully under its proper head.

The sheep lamb in late May and are sheared soon afterward. As soon as the lambs are able to travel the flocks are driven to the summer range, arriving at the Bruneau country

from the first to the fifteenth of June, depending on the season. The flocks number about 2,000 and the camps are tended by wagon except in some of the rougher Jarbidge Peak country.

There is a constant bickering, quarreling, and hard feeling in general between the cattlemen and the sheepmen and also among the sheepmen themselves, the large owners uniting against the small ones. It has so far resulted in one shooting affray. The state of affairs as pleaded by the cattlemen is that they are eaten out by the enormous number of sheep whose owners have no interest in the country except as summer range to be used when the lower country is all dried up, that the range is being spoiled to such a degree that they can not get their cattle fat enough to ship and that unless the Government introduces some kind of control they will be forced out of business. A forest reserve seems to them to be the solution of the difficulty.

The sheepmen fear the consequences of a reserve, knowing as they do that the range is overstocked and that the whole business is merely a struggle while the market is high to make all they can and get cut. The Bruneau country is nearly all unsurveyed, largely because it is only in the last five to eight years that the attention of the sheepmen has been turned that way. Previous to that time there were less sheep in the country and other ranges were nearer at hand, the cattlemen using the country were thus undisturbed in its use and the settlers were not numerous enough to call for a survey.

These are the only reasons that strategic points have not been taken up by the sheepmen with script and State selections as they have in other parts of the country, the Salmon River Mountains for instance. Now that the State has got rid of all its school lands and other grants, it is no longer possible to obtain land in that way for \$1.50 an acre. Script is worth over \$5 an acre and moreover the surveyed townships were not accepted for filing until after they were withdrawn from entry. Should the large sheepmen be given an opportunity to put script on the land it will force both the small cattlemen and sheepmen out of business. The small sheepmen are nearly all tramp owners, nine-tenths of them being ex-herders from the Basque Provinces in the Pyrenees Mountains in Europe who have saved enough money to buy or rent a flock. The majority are not citizens of the United States and only intend to live here until they have made enough money to go back home. A cut in the number of sheep on the proposed reserve will fall largely on this class.

Allowing for partisan feeling and exaggeration in statements, the cattlemen undoubtedly have right on their side of the controversy. They were first on the ground, they are the actual settlers owning ranches on or near the reserve, and are the ones directly dependent on the near-by range for their livelihood. Only the extremists among them desire the sheep shut out entirely, the others realizing that there is plenty of range for both provided the number of sheep

is cut down and care is exercised to keep them off the cattle range proper.

The Bruneau country as previously stated is the best stretch of range in this part of the United States. Its carrying capacity is diminishing all the time but has not yet reached that point where it is beyond the power of nature to bring it back to its former condition. Two divisions in the range were shown on the map, differing more because of the topography than because of any marked change in vegetation. The winter or desert range comprises the big scope of plateau country on the lower Jarbidge and Bruneau rivers. This country is without water except for the almost inaccessible and canyon-enclosed streams and the principal ground covering is short and scrubby sagebrush. Scattered through the sagebrush are grasses and other forage plants. Snow does not cover the ground to any depth in winter in this part of the country and the south slopes of the innumerable small draws and gulches remain open all through the winter. The lower mountains around the settlement on Bruneau River and Meadow Creek within the reserve are on the same order. Above an altitude of 5,000 to 5,500 feet and below timber line there is a difference. Deep snow covers the ground for six months of the year at the least and the vegetation shows the affect of increased moisture, there being more grass and less sagebrush. In this typical summer range the canyon bottoms and most of the tops of the ridges are covered with mountain grasses,

wild sunflowers, and other weeds, while the slopes are sagebrush covered. This country makes an ideal summer sheep or cattle range, the groves of aspen along the bottoms affording the necessary shade in the heat of the day.

The examination was made in early June when the snow had just disappeared after an unusually wet spring. It was a bad time to judge of the condition of the range as the sheep were not yet on the ground in any numbers and the evil effects of crowding, trampling feed, etc., were not apparent. The grass was long and fairly thick and there were no signs of gullying or erosion as is often the case in badly overgrazed regions. Probably the fall condition of the range might show otherwise but the impression gathered was of a range in the first process of being ruined rather than of one already so.

On this account as well as because a cut in the number of stock in the first year of a reserve is an injustice to the stockmen and inevitably accompanied with dissatisfaction, it is recommended that the full number of sheep and cattle using the country be given permits for the first season and that at the time permits are issued the stockmen be warned to expect a cut next season. Individual ranges or any sharp distinction between sheep and cattle range are not practical until the people have adjusted themselves to reserve conditions. An effort should be made, however, the first year to keep the sheep off the local cattle ranges of the settlers within and near the reserve. Permits for sorting

corrals, at least one dipping plant, and perhaps some fencing should be issued. The importance of having a reliable and thoroughly experienced grazing man in charge of the reserve can not be over emphasized for every conceivable phase of the grazing question is present. The grazing season should be from June 1 to December 15.

### Fire

The fire situation is commensurate with the limited amount of timber. What few fires there are occur in the fall and are directly attributable to the sheep herders setting out fires in the brush and timber on leaving the range at the end of the season. They do this in a desire to increase the feed area and the object lesson of arresting one or two of them should be sufficient to eliminate completely the danger from fire.

### Sentiment

The local inhabitants, the ranchmen in Owyhee, North Fork, and White Rock valleys are unanimous in wanting a forest reserve. The miners generally commend the idea as do the inhabitants of Mountain City and nearly all the other towns, in fact every class and every interest except the sheepmen and those directly dependent on them is favorable. The community about the post office at Three Creeks, Idaho, are an exception to the rule because they are dependent on the sheep for their living and also because they have heard all of

the complaints and none of the praises of the Cassia Reserve in Idaho.

The arguments of those wishing a reserve may be summed up in the statement that they believe it to be either a question of a reserve or leaving the country. There is a strong feeling in Elko County originating from a very few men that the future of the cattle business depends entirely on the Government control of the range. The question of timber and water conservation are only partially understood and merely advanced as convenient and well-sounding arguments to strengthen the main idea of range conservation.

The sheepmen with the exception of some few of the smaller owners who are far-sighted enough to see that under present conditions they will be soon driven to the wall, take a directly opposite view. They do not want to pay the grazing fee and they say so but above everything else they fear any change of conditions that may affect their business by cutting down the number of stock, limiting the season, etc. They are openly hostile to the whole idea and give out as the principal reason of their opposition that they fear governmental favoritism, incompetence, and graft.

#### Situation

The large sheepmen by their affiliation with the moneyed and political interests of the State represent quite a powerful organization. A great deal of pressure and opposition to the Bruneau Forest Reserve will be brought to bear

by them but the idea of forest reserves in Nevada is so new and so little known that it has its advantages as well as disadvantages. There can be no organized opposition nor have they the past abuses and mistakes in the reserves to cite as a precedent.

The placer ground used by the sheepmen for corrals, etc., has been alluded to several times in this report. The more desirable stretches of bottomland in the gulches are staked off as placer ground, holes being dug at intervals to cover the necessary assessment work and thus comply with the law. Nearly all the larger sheepmen have these "Sheep mines" to control the springs and the surrounding range against their fellows. The idea of mining is absurd. One man paid by the largest sheepman of all has openly boasted that in three years' work he has never found a color. The whole question will have to be investigated and stopped.

The price of labor is the same as for all this part of the western country. Grangers in haying time are paid \$2 to \$2.50 a day, sheep herders and camp tenders \$30 to \$40 a month, "Buccaroes" (vaqueros) \$30 to \$35. All this is with board. A man can be hired ordinarily, if the work is not hard, for \$1.50 a day; \$2 for almost any kind of work. Living is high as the country is so distant from the railroad.

### Conclusion and Recommendations

It is recommended that the area under discussion be created a forest reserve as a protection to the stock interests of the settlers and the entire State; that it be known as the Bruneau Forest Reserve; that the area examined in the fall of 1905 and known as the North Fork Forest Reserve be incorporated with it, all under the name of Bruneau; that action be taken immediately in its creation and the administration started before the grazing season of 1907. It is absolutely essential to have this reserve under administration at the same time as the Ruby Forest Reserve, created in May, 1906.

### Administration

The Ruby Mountain Forest Reserve created last May with approximately 600,000 acres, will also have to be put under administration in the spring of 1907. This reserve and the Bruneau are near each other and are the only two reserves in this part of the State. It is recommended that the two be started at one time under the same Supervisor with headquarters at Elko. There is no one of any reserve experience native to Nevada so a temporary man will have to be brought from the outside. This should be a man of long experience in grazing organization on the forest reserves, one who is both fair and firm and who will make a good impression on the ranchers from the start. Both of these reserves are

primarily grazing reserves so outside of the grazing season there will be comparatively little to do and the acting Supervisor need only be a man of administrative ability who is thoroughly up on grazing.

Elko is the proper place for headquarters. This town is on the railroad between the two reserves. On the Bruneau Reserve there is telephone and stage communication to Tuscarora and from there to White Rock, Edgemont, Columbia, and Mountain City, also on the other side to Gold Creek. The only part of the reserve not conveniently connected with Elko is the northeastern end.

As already stated the Bruneau Reserve is easy of access so the number of Rangers need not be very great. A man can make the complete round of the reserve in summer in four or five days riding, provided, of course, he does not stop for anything on the way. Four Rangers are required during the grazing season, the number to be increased as the working administration finds the need for additional men. One of the Rangers should have field control over the other three, his district being the whole reserve with mail headquarters at Gold Creek. The three assistant Ranger districts should be as follows:

Ranger District No. 1.--The North Fork Addition with headquarters at the post office of the North Fork. (For the duties of this Ranger, consult the North Fork Forest Reserve report).

Ranger District No. 2-From the west line of the reserve on the west, the township line between Townships 43 and 44, Ranges 53 and 54, on the south, the State line on the north and a line on the east extending up Bruneau River to Meadow Creek, up Meadow Creek to the divide and down the Rowland and Gold Creek wagon road to the south line of the reserve; in other words, following the Rowland and Gold Creek wagon road on the east. The headquarters should be at Mountain City. This district is a large one containing the bulk of the business of the whole reserve comprised in the free-use and timber-sale work and a large part of the grazing, trespass, and special privilege business. The deputy Ranger has his headquarters on the southeast end of this district and a large part of his time will be spent in helping Ranger No. 2.

Ranger District No. 3 has the remaining country east of District 2. District No. 3 is also a large district with a rough country, plenty of grazing, trespass, and free-use business.

When the grazing season is over, three of the Rangers will have to be laid off as there is nothing for them to do. No work is necessary on roads or trails and besides it would be impossible to do anything of that kind in the winter months. One man can attend to the free-use and timber-sale work for the mines in the northwest end. There is no immediate need of work on Ranger cabins or pastures. In fact the best places for these improvements can not be chosen until a season's work has shown the best locations. The sites for pastures are very important and should be picked out with a view to having plenty of good, fairly open winter range as well as

summer range. During the sheep-grazing season the riding will be very hard and each Ranger will need at least four good horses. The outside range already has all that it can conveniently bear, so for the good of the Service to avoid loss of time in looking for horses and in common justice to the Ranger to allow him place where his surplus stock can regain flesh, the question of pastures can not be overemphasized. They should also be chosen with the view of plenty of water for raising a little alfalfa for winter. Special privileges for fencing pastures, sorting corrals, etc., should only be given when it is decided that the land will not be needed by the Ranger force.

It is suggested that the acting Supervisor be some one on the order of Mr. D. B. Sheller and that he be left in charge until one of the local men has proved himself capable for the place. The Civil Service examination held last May in Elko provides two very good men. They are C. Sydney Tremewan of Roland and Louis Sharp from near Elko. Tremewan owns cattle and lives within the proposed Bruneau Addition, being the leading spirit in the agitation for its creation. He is a man of considerable education who would have no trouble with the office work of a supervisor, stands well in the community, is apparently thoroughly honest but is somewhat young for the position yet awhile. Moreover, the fact that he owns cattle and can not see anything good in a sheepman is very

much against him. He should receive an appointment and will be very useful as the deputy Ranger in charge of the other three Rangers.

Sharp is an older man with less education but with much more experience in handling men. He knows the Ruby Mountain country but not the Bruneau and will make an excellent man for deputy ranger on the former.

A man named Short who also tried the examination at the same time will do for a guard on the Ruby Mountain Reserve.

George Arent of Rowland is interested in the horse business in a small way. He is an ex-deputy scab inspector of Elko County, knows all the stock and its owners using the proposed Bruneau Reserve and stands well in the community. He is also apparently an honest and fair-minded man. An effort should be made to get him into the Service as he is in many ways just what is wanted in handling the grazing situation.

Scott Curry, post-office address Bruneau, Idaho, who has a homestead near the northeast end of the reserve and runs a few horses is another possibility. He is also an ex-scab inspector and a man thoroughly used to handling sheep but might be inclined to err by over-leniency to the sheepmen. Both Arent and Curry are men used to good wages and it is extremely doubtful if their services can be secured on this account.

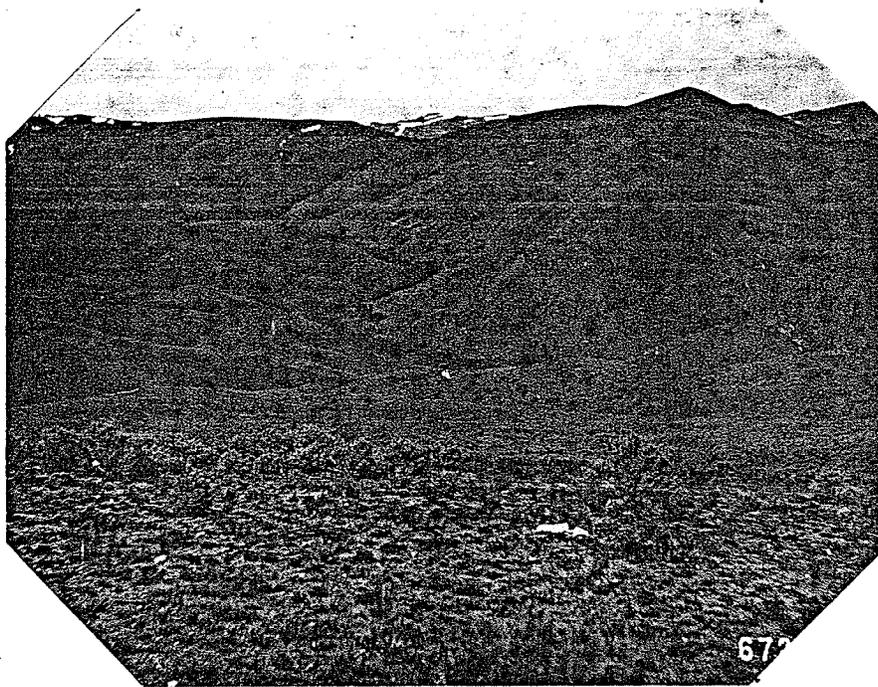
The greatest possible care was exercised in drawing the boundary but as almost the whole country is unurveyed,

there is no doubt but what many changes will be found necessary. They can be made without any trouble at the time of the first inspection.

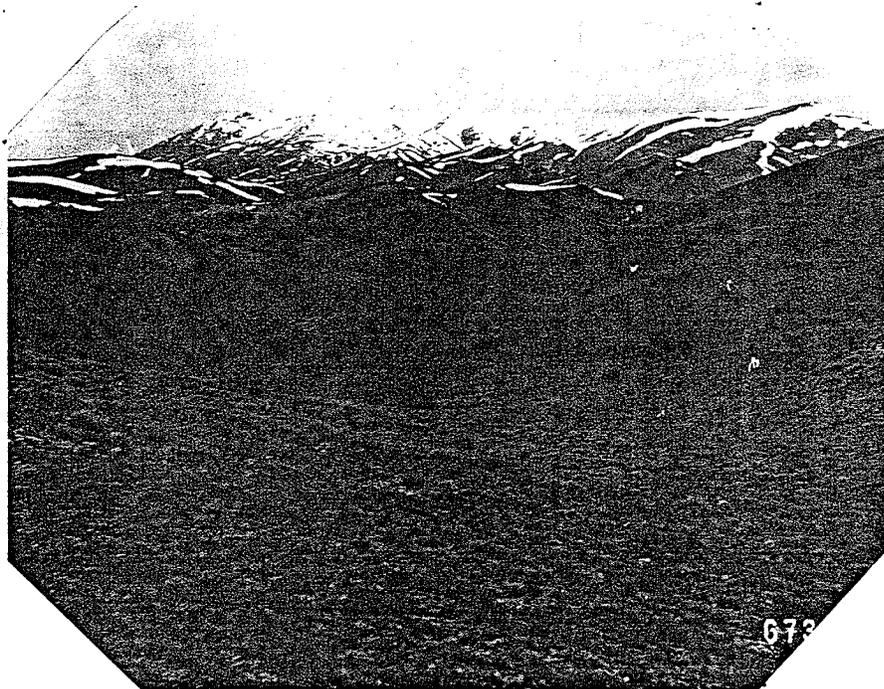
List of Photographs to Illustrate the Report

Number. 67296,- Head of Telephone Creek.

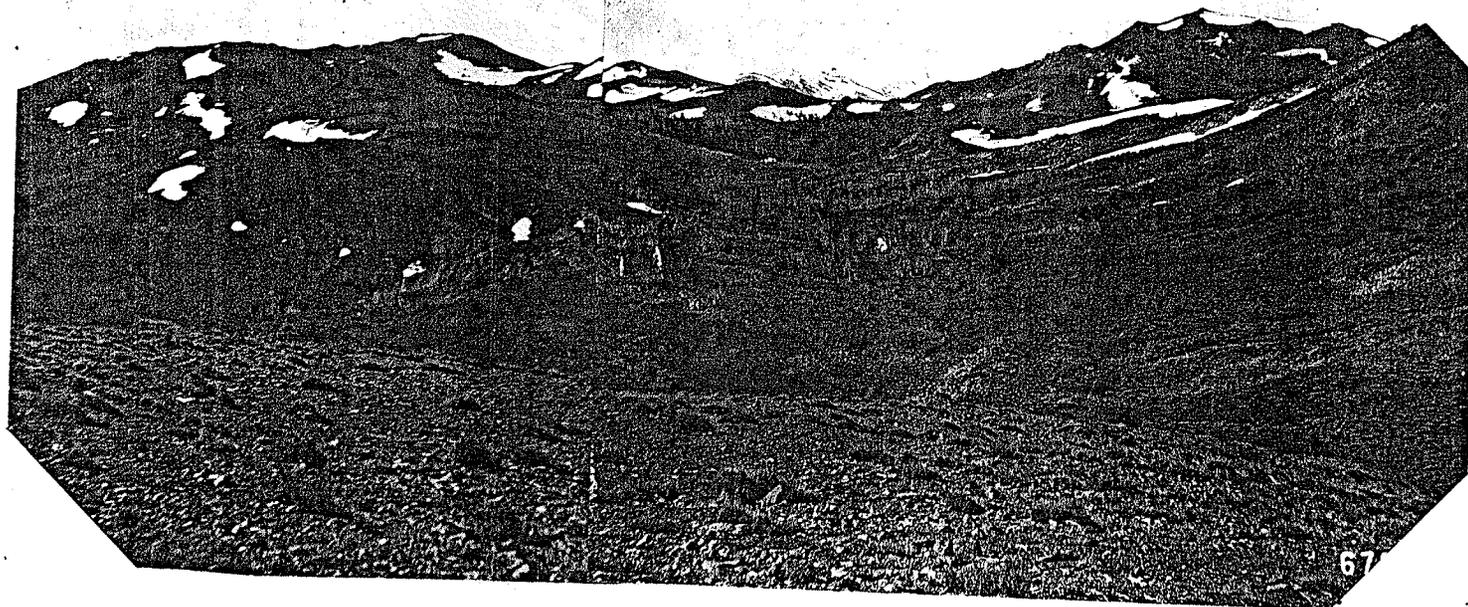
- " 67297 and 67298,-Panorama typical high-grazing land.
- " 67299, 67300, and 67301,-Panorama North Fork or White Rock mountains, taken from the east side.
- " 67302,-North Fork Mountains, back of the town of White Rock.
- " 67303,-White fir and aspen on mountains between Silver and Indian creeks.
- " 67304,-Typical white fir and aspen on White Rock or North Fork mountains.
- " 67306,-Grazing land, showing grass on ridges and aspen in creek bottoms.
- " 67307 and 67308,-Panorama, mountains at the head of Buck and Coon creeks, and Jarbidge River; gives some idea of the percentage of fir, aspen, and open grass.
- " 67309, 67310, 67311, 67312,-Panorama, mountains at the head of the East Fork of Jarbidge River. Shows the typical high mountain topography with covering of timber, aspen, sagebrush, and grass.



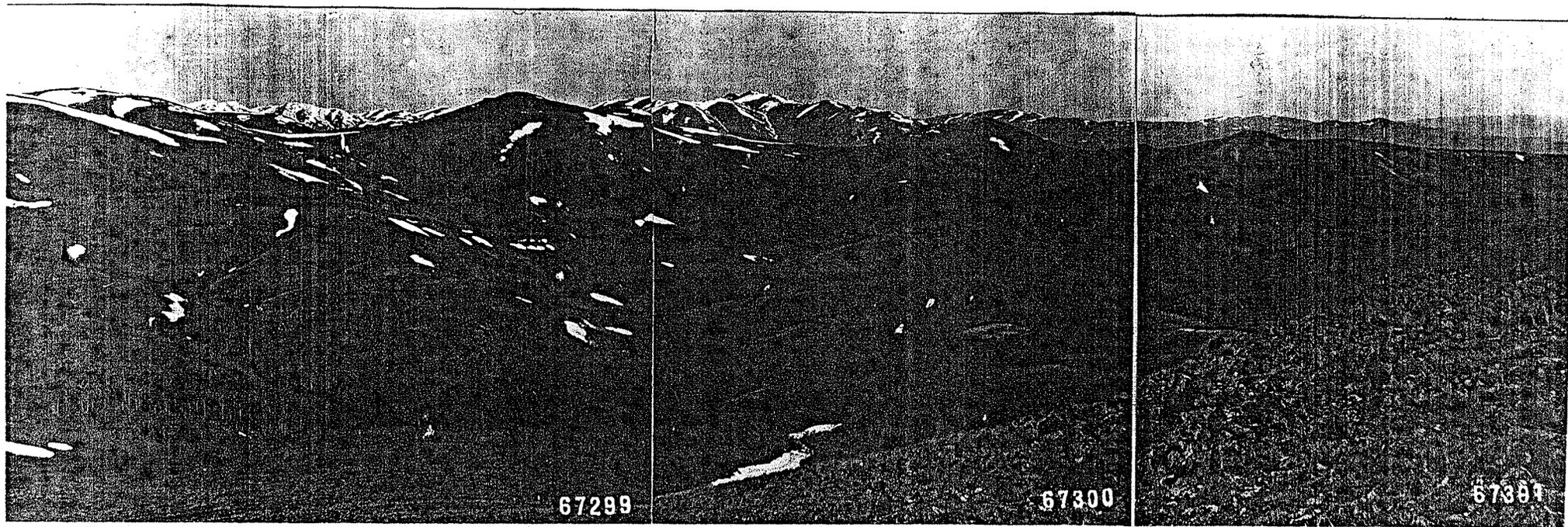
Head of Telephone Creek.



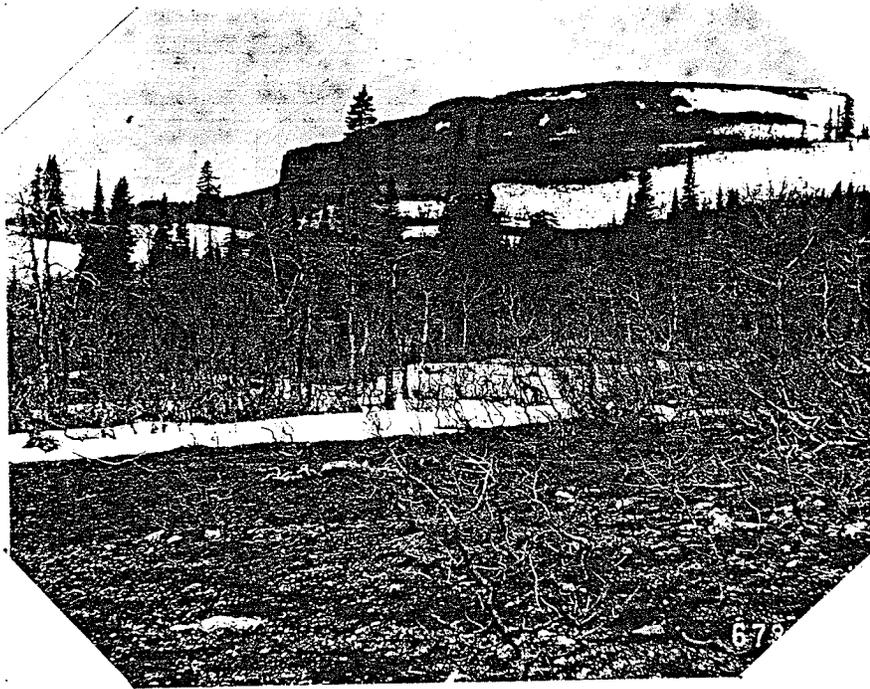
North Fork Mountains, back of the town of White Rock.



Panorama--Typical high grazing land.



Panorama--North Fork of White Rock mountains, taken from the east side.



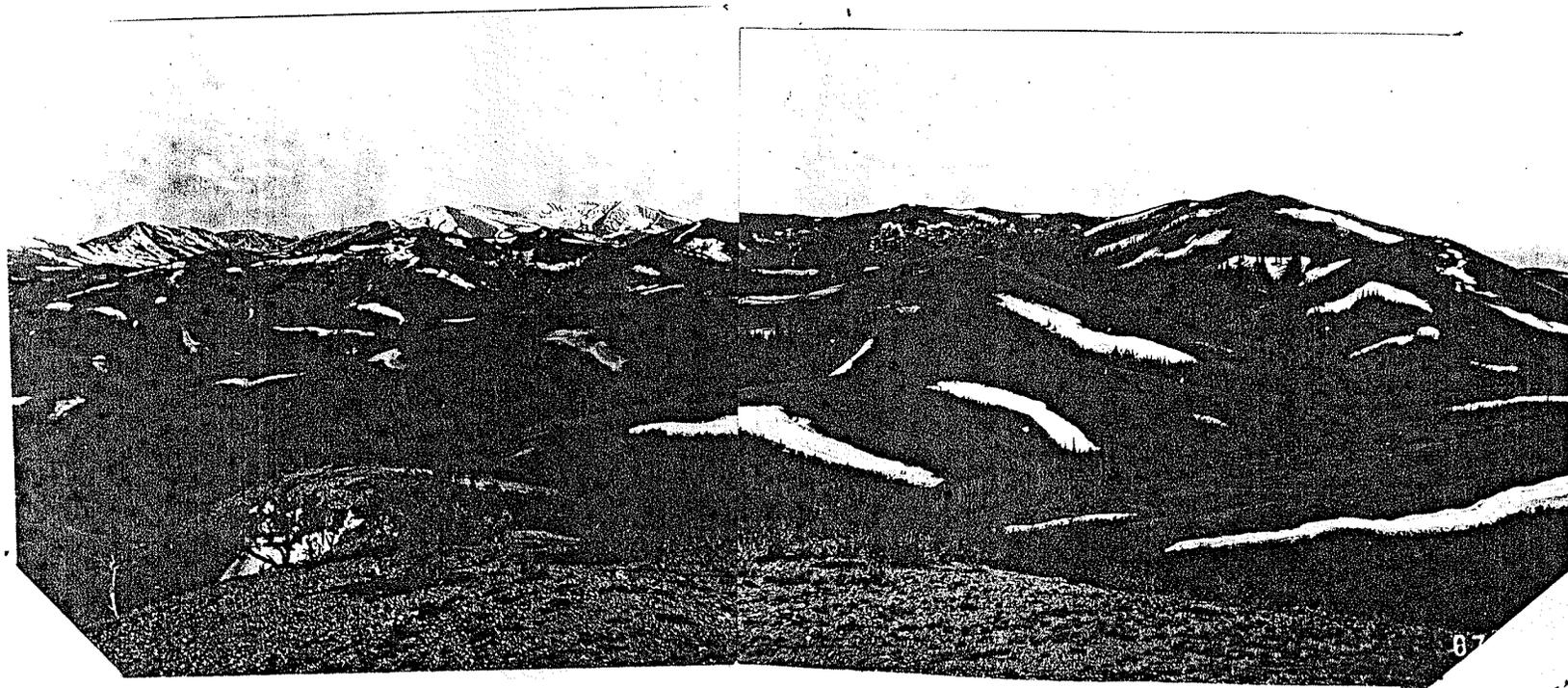
White fir and aspen on mountains between Silver and Indian creeks.



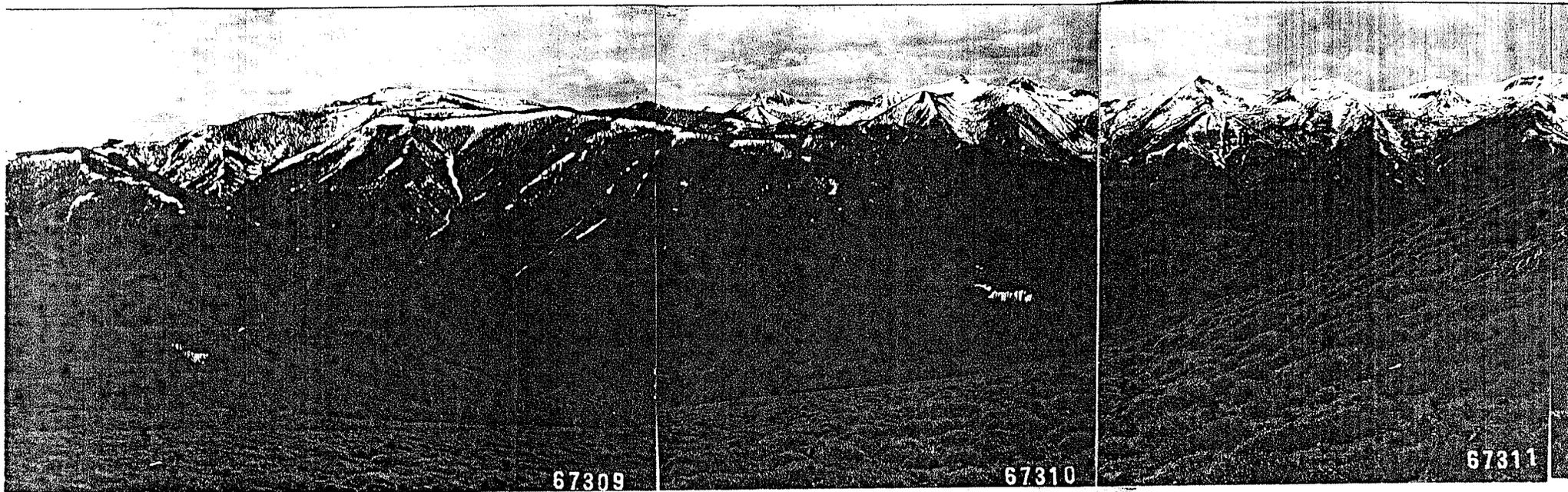
Typical white fir and aspen on White Rock or North Fork mountains.



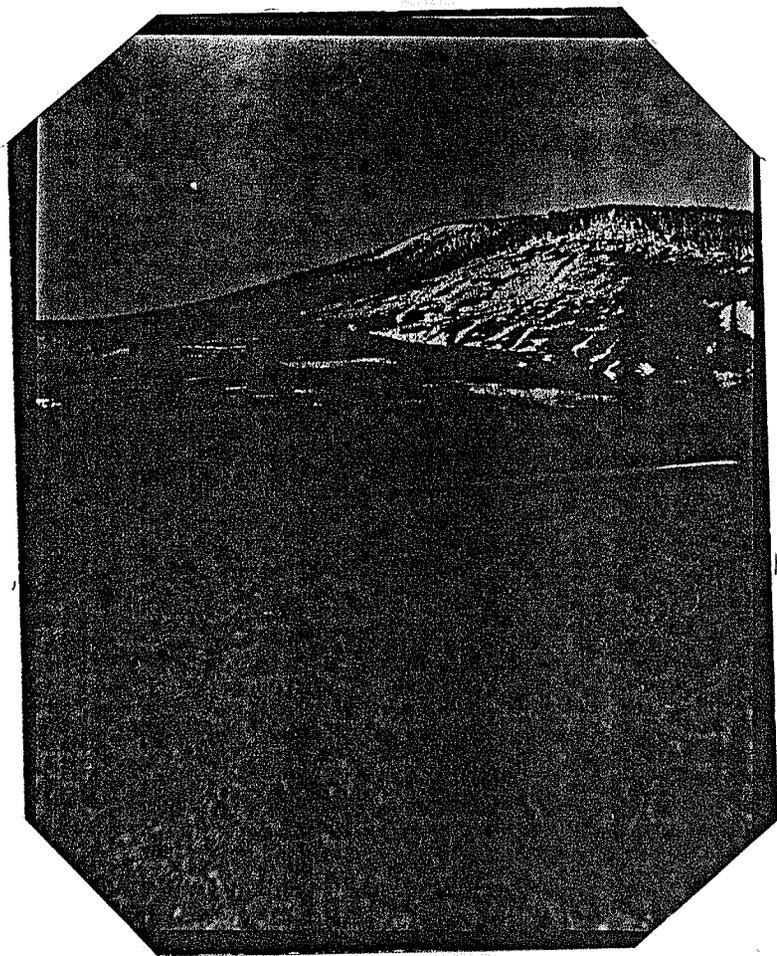
Grazing land, showing grass on ridges and aspen in  
creek bottoms.



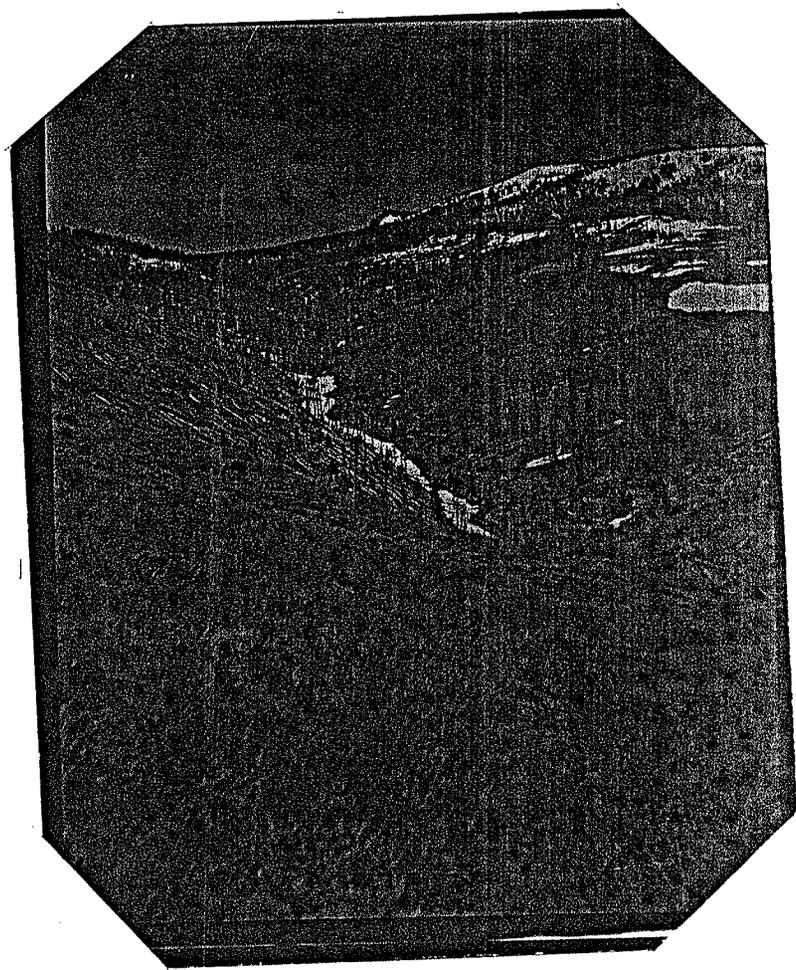
Panorama--Mountains at the head of Buck and Coon creeks, and Jar-  
bidge River; gives some idea of the percentage of fir, aspen,  
and open grass.



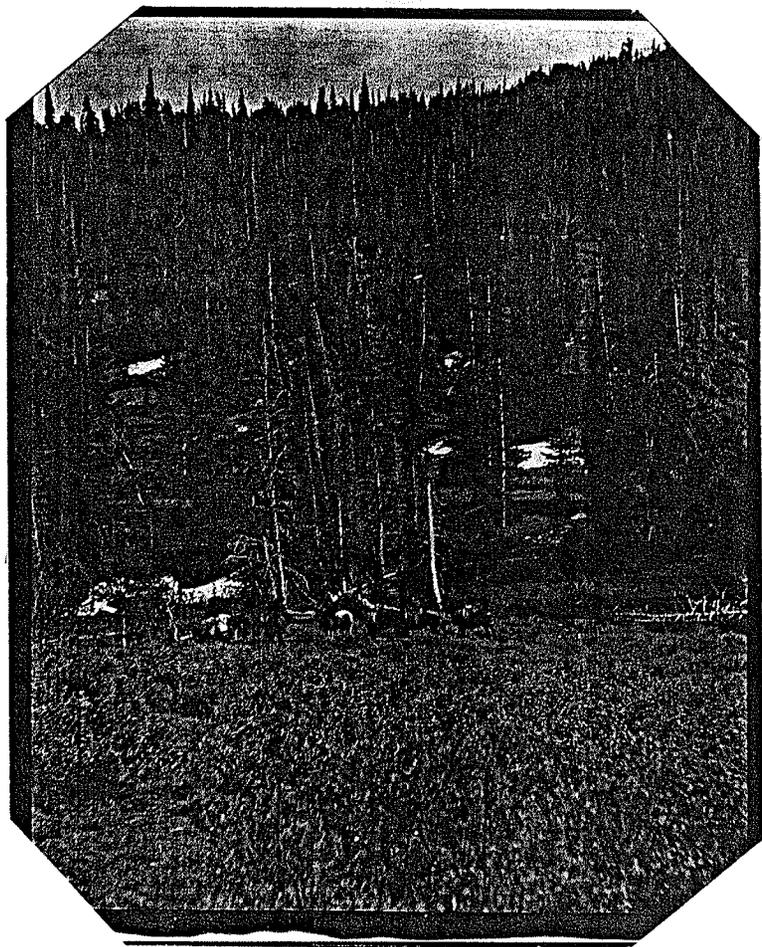
Panorama--Mountains at the head of the East Fork of Jarbidge River. Shows the typical high mountain topography with covering of timber, aspen, sagebrush, and grass.



Foreground in an old burn in fair condition; timber in the rear.



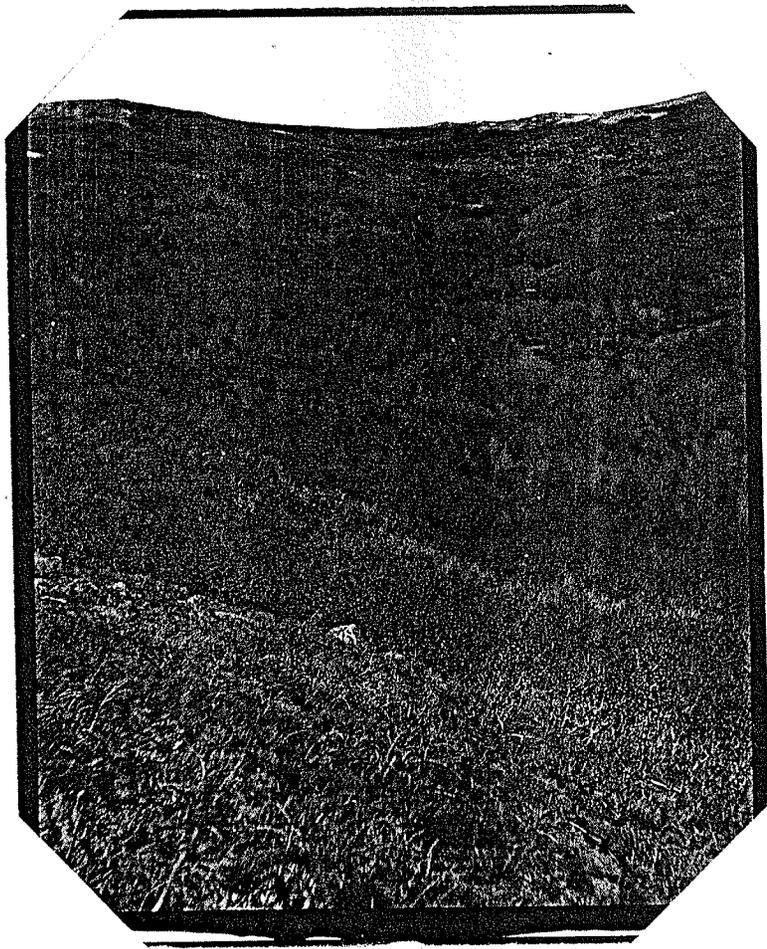
This picture is farther east than B. at the head of Wilkins fork on north slope of Jarbidge Mountains.



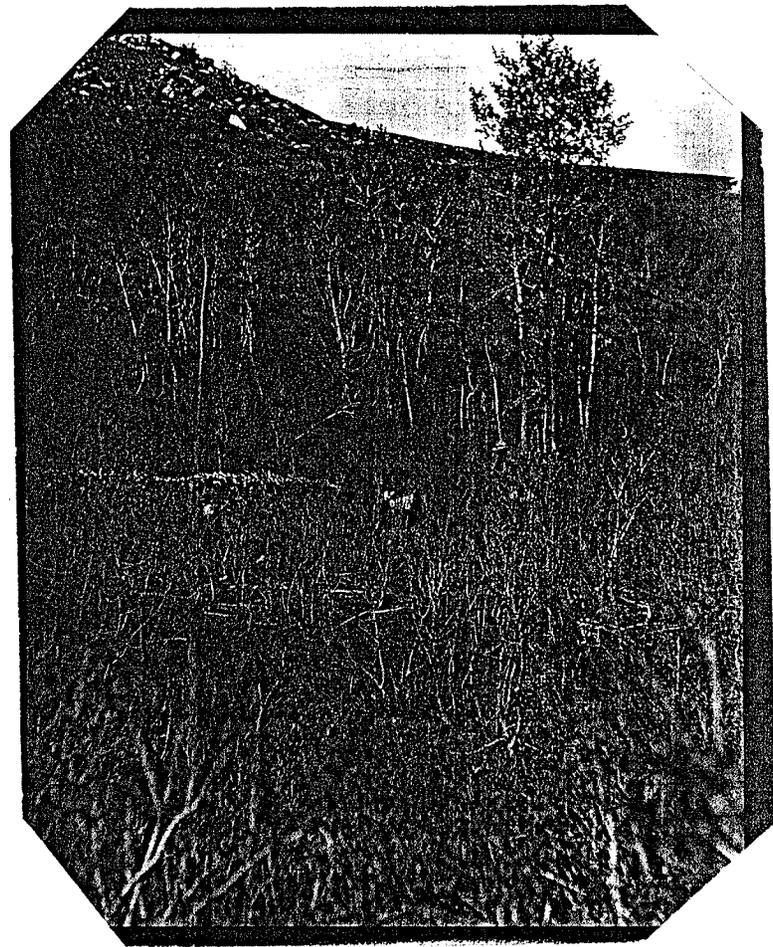
Timber growth at the head of Bear Creek,  
Jarbidge Mountains.



Burn of Bear Creek timber still valua-  
ble for poles, etc.



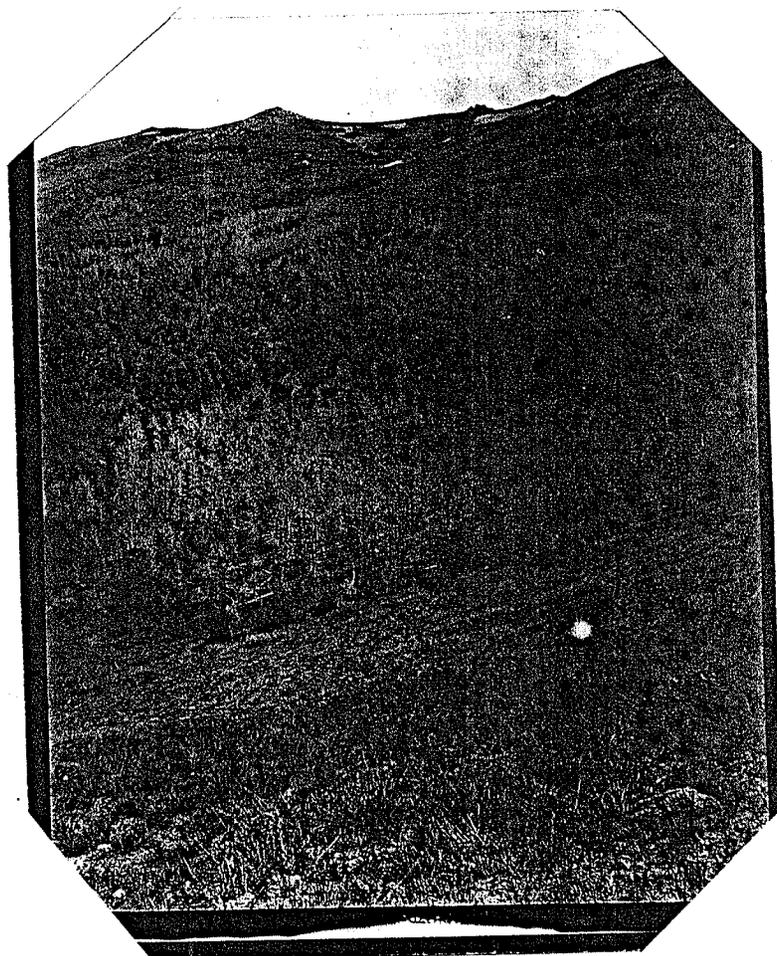
Aspen cover in Tennessee Gulch, north-  
west of Fern or Duncan Peak.



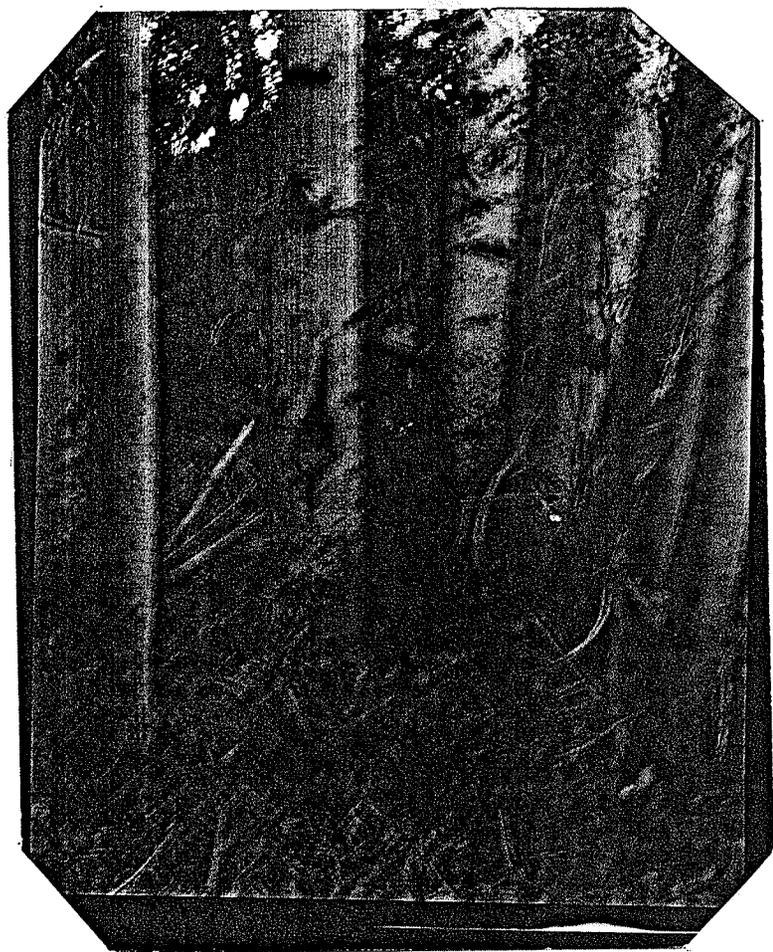
Reproduction on cut-over area: Tennes-  
see Gulch.



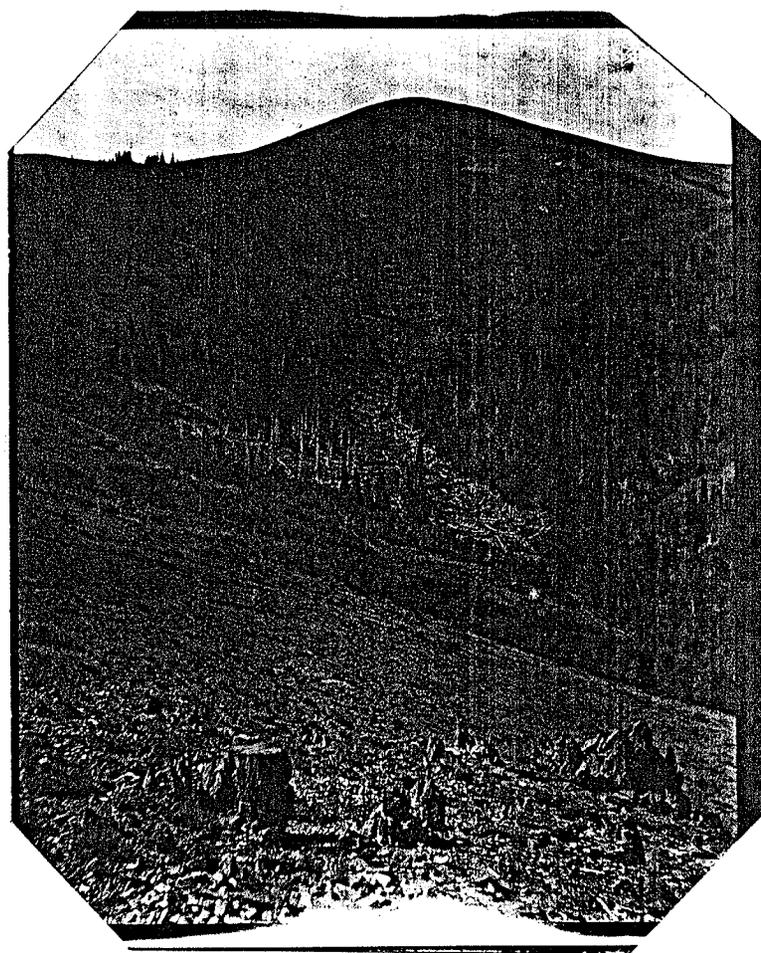
Aspen growth on east fork of Tennessee  
Gulch.



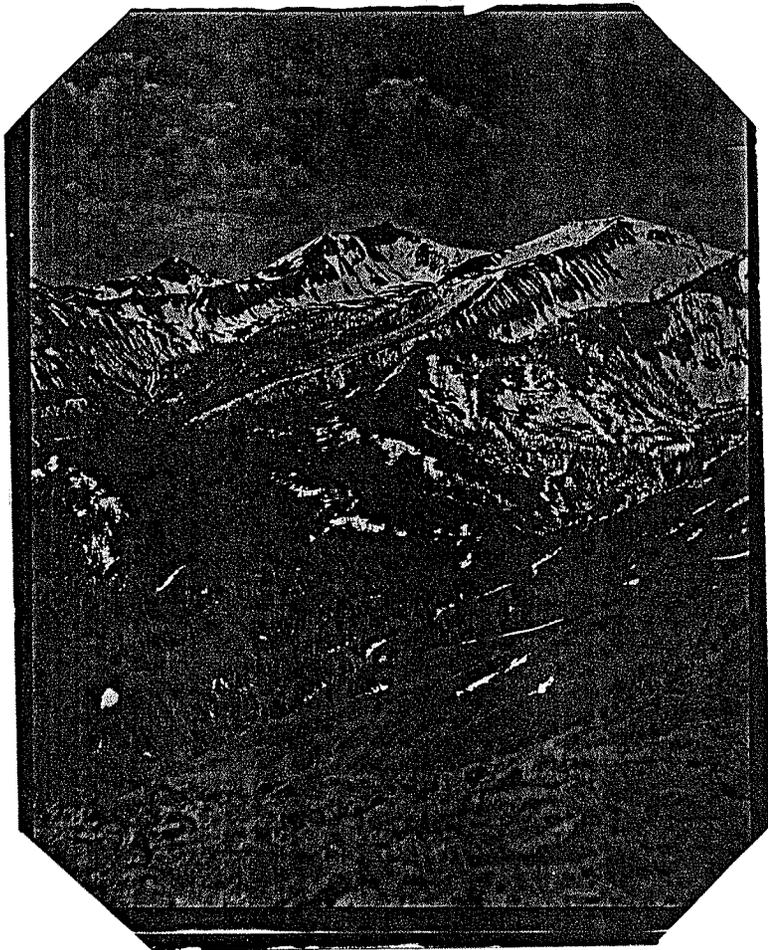
Typical growth in Tennessee Gulch, on  
north slope of the peak.



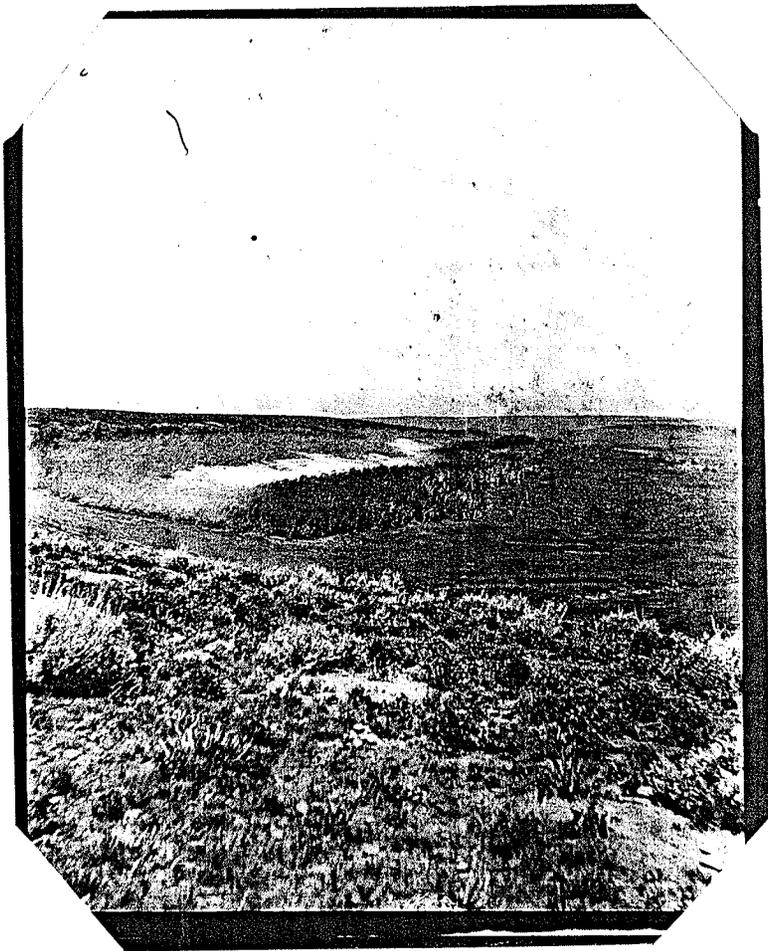
Size attained by aspen logs on McDonald Creek. These trees are very straight and grow from 50 to 60 feet high.



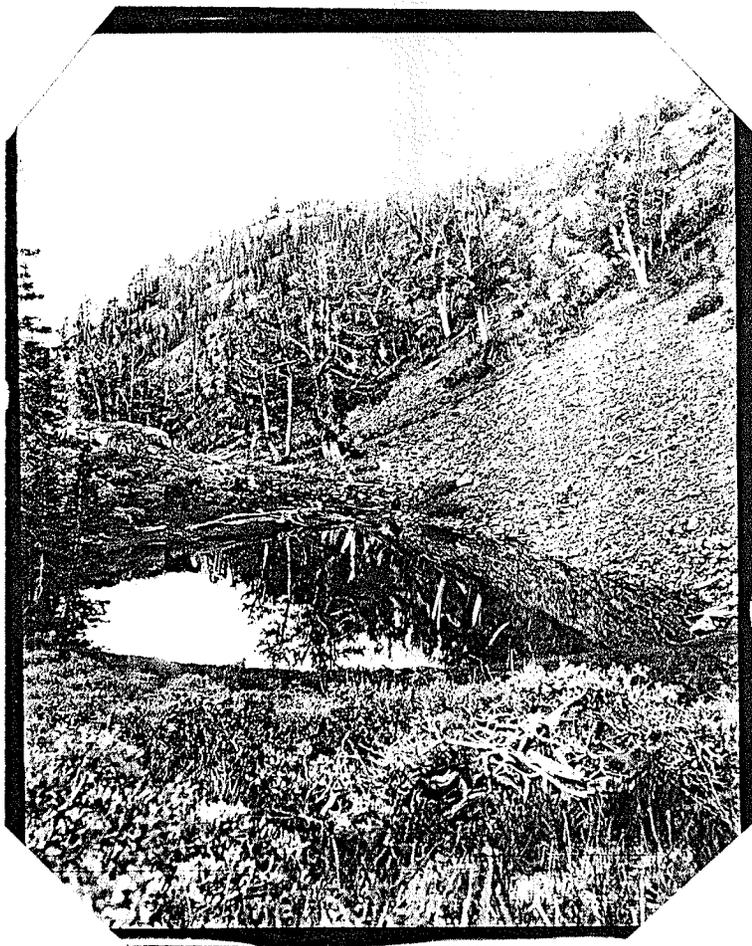
This is typical of the timber growth around Merriss Mountain. This view is on the northwest slope.



Head of east fork on east slope of Jarbidge Mountains, the approximate elevations of which are 12,000 feet.



July 3, 1908, showing "dog legged" aspen protecting snow bank from 10 to 20 feet deep. These are typical on the northeast slope of Jarbidge Mountains down towards the Nevada State line.



Showing scrubby pine on head of Blue Jacket Creek. The timber has been culled out.



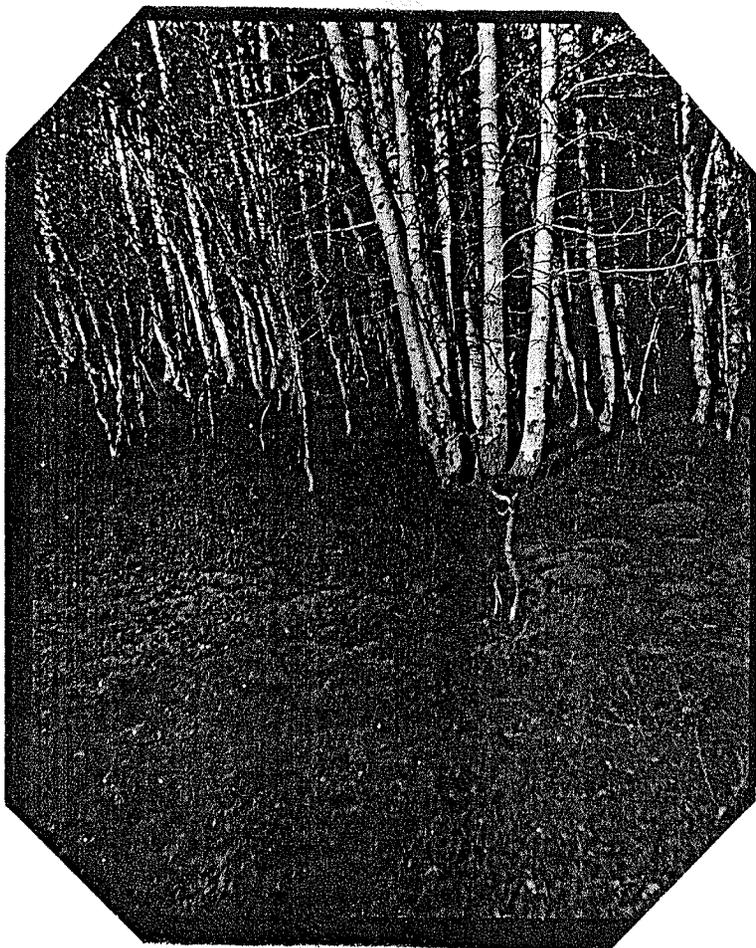
Relative thick growth of "dog legged" or scrubby aspen on east slope of Tennessee Peak.



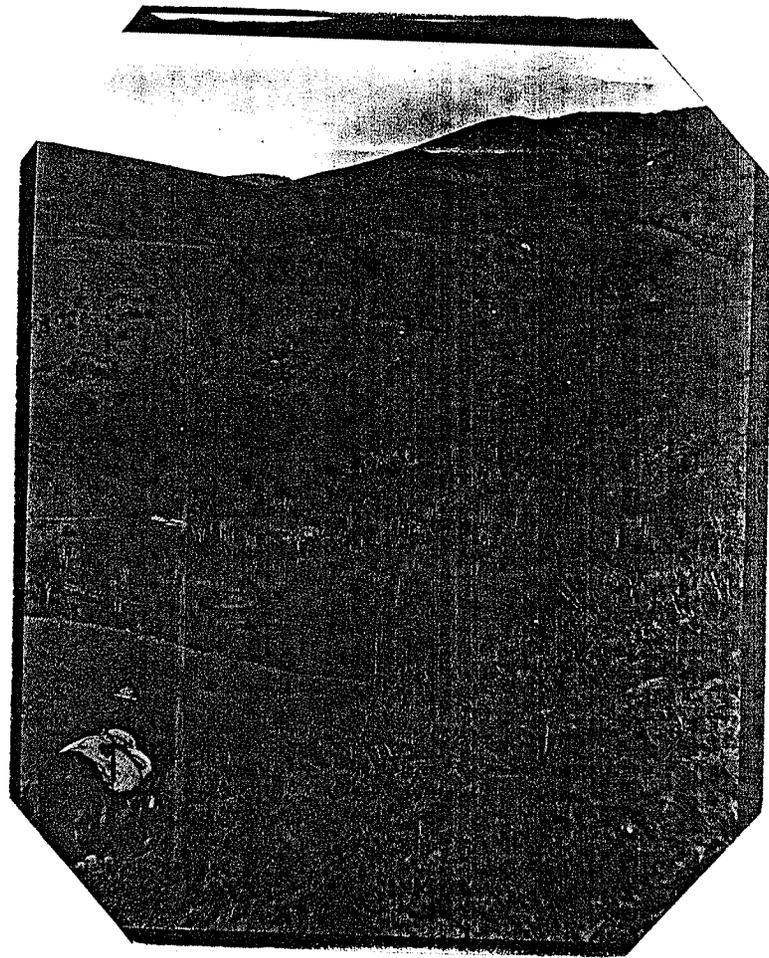
Bad condition of cut-over area at the head of Martin Canon.



Cut-over area at the head of Martin Canon.



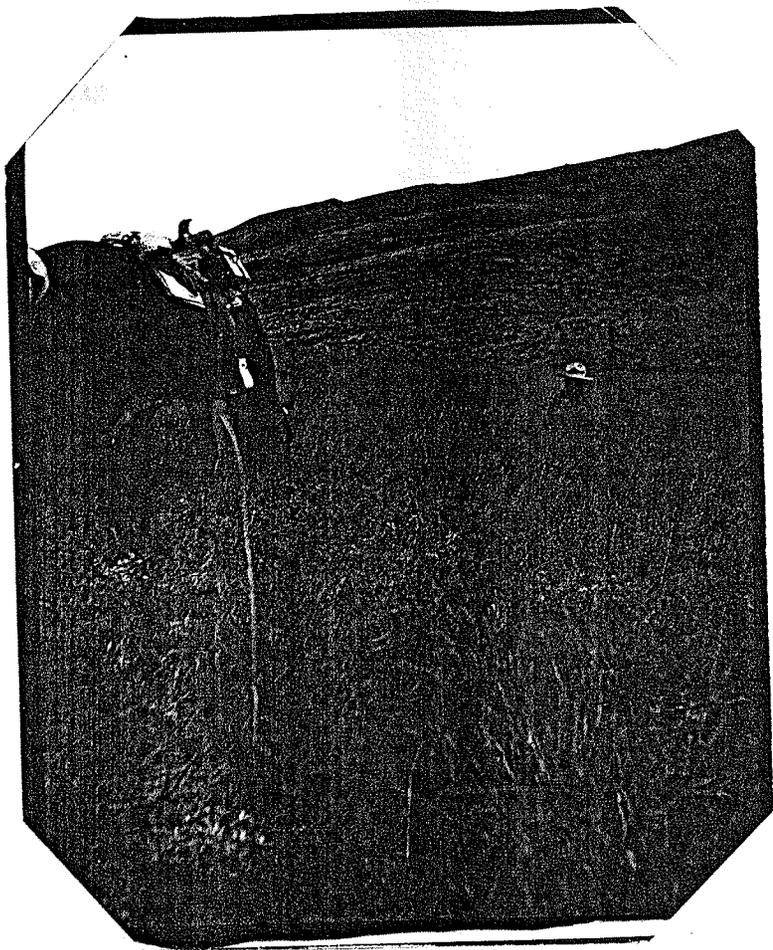
Very good detail of better growth in  
Lead of Martin Canon.



Mahoney cabin and growth along the Jar-  
bidge River.



Divide between east fork and Willins fork.



Showing grass cover on Log and Merriss  
Creek. This country has been grazed  
by cattle for thirty years; sheep  
have been kept off.



Head of Silver Creek on west slope of  
White Rock Mountains.



Cut-over area by Edgemont Mining Company, showing the company's mine on the right.



This area has been cut over by the Edgemont Company for years and operations are still in progress.



Logging operations of Edgemont Mining Company at the head of Van Duser Creek.



Bad condition of cut over areas by Edgemont Mining Company also on head Van Duser. These areas are the worst kind of fire traps.