The country rock of the territory between Round Mountain and Alder, about six miles to the east, is a mixture of igneous rocks varying from felsite and felsite porphyry to basalt porphyry. These rocks have been broken by many faults striking and dipping in various directions, and in these faults some mineralization has taken place. The mineralization is in the form of sulphides in narrow stringers, as a rule, none of those observed, except in the Legal Tender workings, being over a few inches in width. The chief mineral is pyrite, while galena, sphalerite and a little chalcopyrite were also found. The sulphide minerals, especially the pyrite, are accompanied by more or less quartz.

Snow as well as heavy wash, trees, etc., made surface work unsatisfactory. Practically every prospect hole in Alder Gulch was inspected and some outlying ones, and in no case was a prospect found giving reasonable hope of developing into a mine.

Following are descriptions of prospects visited:

Claim of B. FULLERWIDEN:

On northeast slope of Round Mountain near top, overlooking Clover Gulch. On dump of shallow shaft is quartz enclosing pieces of country rock, giving the material the appearance of breccia. Pyrite is scattered throughout the rock. On dump of another hole about 100 ft. distant is same material. Vein is said to be continuous for some distance. Snow completely covered the surface and filled the holes, making a more thorough examination of the prospect impossible. A sample was taken from the dump of the upper shaft or pit; this assayed 0.01 oz. gold and 7.8 oz. silver.

ANDY PETRUSSEN Claims:

East of Shawmut mine at head of Clover and Alder Gulches. A tunnel has been driven to the west and a number of crosscuts, making several hundred feet of workings in all. Two stringers of sulphide ore were opened, one consisting entirely of pyrite, the other, pyrite with some chalcopyrite and sphalerite. Neither streak was over 2 in. wide at the widest place exposed.

COLORADO BELLE:

On ridge between Clover and Alder Gulches, one-half mile east of Shawmut mine. This is an old property from which, it is stated, some lead-silver ore was shipped. Mine was opened by a shaft, now caved. Size of dump does not indicate extensive workings. Only a little pyrite in this material. On pit were a few hundred pounds of heavy, lead-sulphide ore. Snow covered the surface. Apparently no work has been done here for many years.

MORNING STAR:

On south side of Clover Gulch about one mile northeast from Round Mountain. Owned by Mrs. Minnie Crowner, of Alder. A tunnel has been driven easterly for 200 ft. At this point it was caved. An inspection of the dump and the surface showed no mineralized rock.
SYEIH G STAR:

On northeast slope of Round Mountain below Fullenweider's claim. An old property once opened by a vertical shaft and a tunnel. The tunnel is now caved and water well up in shaft. Apparently no work has been done on this property for many years. On the tunnel dump is felsitic country rock containing some pyrite, also a small pile of ore containing much pyrite and a little sphalerite. It is claimed that the vein opened in this mine is the continuation of the Shawmut vein. The dump material of the two properties is similar and the location is in the general direction of the strike of the Shawmut vein. Snow prevented any inspection of the surface. This property is patented.

JAKE POST TUNNEL:

On north side of Alder Gulch, about one mile east of Round Mountain. In andesitic rock. No mineralization in tunnel or observable on dump or surface.

CATHHERINE:

On north side Alder Gulch about one-half mile east of Post Tunnel. Owned by C. E. Cooke and Mrs. Minnie Crowmer, of Alder. Tunnel is being driven to north to cut vein of lead ore said to have been opened in old, shallow shaft. Shaft completely caved in and no mineral in sight.

CASTLE:

One-half mile east and a little lower than CATHHERINE, on same side of gulch. Tunnel door locked. Only lean, pyrite-bearing mineral on dump.

GOLD WAVE:

A short distance below Castle on same side of Alder Gulch. Belongs to V. Phillips and C. E. Cooke, of Alder. A crooked tunnel, with crosscuts, has been driven northwesterly. Total length of workings three or four hundred feet. At least two faults opened in the workings. Country rock is crushed for width of one to several feet. In each of these fault zones is a narrow streak of sulhide of lead, zinc and iron. These streaks not over 3 or 4 inches in width at widest place.

BARNES' TUNNELS:

Three to four miles down Alder Gulch from Round Mountain on south side of gulch. Two tunnels, each several hundred feet in length, have been driven in a southerly direction. On the dump of the tunnel that is the farther up the gulch is some quartz-pyrite ore similar to that, sorted from the good ore of the Shawmut shaft, also some heavy lead ore. At the main turn in this tunnel is a short and narrow streak of galena and rhodochrosite in a fault zone. Beyond this turn the tunnel could be entered for only a short distance on account of bad air. B. Fullenweider states that at the breast of this tunnel at contact of "diorite" and "granite" is a streak of pyrite and quartz. The lower tunnel was not accessible all the way on account of bad air, but as far as it was entered no ore was found, neither was there any ore on the dump.

JAKE POST MANGANESE MINE:

About one-half mile west of Alder station on south side of
Alder Gulch. Two crooked tunnels each several hundred feet long have been driven westerly into a low ridge, gaining very little depth. In the upper tunnel the country rock is a dark-colored, basic igneous rock. All through this rock are stringers and bunches of manganese oxide, the largest being not over 1 ft. across. The mineral itself appears to be of good grade, but it is so widely scattered through the country rock that very close hand-sorting would be necessary to make a commercial product. Two cars of ore sorted from the rock while driving was in progress were shipped to Pueblo. It is stated that 8.50 per ton on board the cars at Alder was received. No work has been done in this tunnel for seven years.

A winze on an incline of 25° of 30° has been sunk from this tunnel level. In this winze the country rock gradually becomes lighter in color and the manganese mineralization disappears at a shallow depth.

The lower tunnel is about 40 ft. below the upper, and its portal a couple of hundred feet east of that tunnel portal. It is driven in a general southwesterly direction for about 200 ft., but gains very little depth, probably not over 30 or 40 ft. Driving was in progress at the time visited and the winze was in a light-colored, highly altered igneous rock, through which were scattered patches of rhodochrosite and small crystals of pyrite.

LINQUIST TUNNEL:—

Near bottom of gulch below Golden Wave Tunnel partly caved and water backed up so it was not entered. On dump was some low-grade pyritic material.

MUNSON TUNNEL:—

In branch gulch of Alder, southwest of Linquist tunnel. Tunnel looked. No ore on dump; country rock basalt porphyry.

DROTT PROPERTY:—

The tunnel on this property is southwest of the Munson tunnel and at a somewhat higher elevation. A tunnel, of considerable length, has been driven westerly, but could not be entered as it was locked up. It is stated that good-grade gold ore was opened in this tunnel. None could be found on the dump and apparently no work has been done for some time. Country rock on tunnel dump is basalt porphyry. A light snowfall here made surface observations difficult.

LEGAL TENDER:—

The Legal Tender shaft is about one-quarter of a mile south of the Shavmut shaft and at a slightly lower elevation. The shaft is sunk vertically for about 50 feet, then to the southeast at various angles. The first level is at a depth of 90 or 100 ft. and is driven on the vein about 50 ft. northeast and 25 ft. southeast. The country rock is a light colored, altered felsite porphyry, similar to that of the Shavmut. In this country rock a fault zone dipping 50° to 55° southeast has been mineralized, forming a vein. At the shaft station on this first level is a shoot of heavy pyritic ore containing some copper, as the country rock is maficchite stained in places. This shoot is about 18 inches wide at this point, but pinches out entirely before either face of the level is reached.

The next level, about 25 ft. below, has been driven 110 ft. southwest and 100 ft. northeast. On this level stringers and bunches of pyrite have been opened along its full length. In two places
small stopes have been lifted to a height 15 or 20 ft. above the level. The widest exposure and best looking ore is in the southwest breast of the level. Here a sample across an average width of 17 inches assayed 0.02% gold, 10.9% silver and 1.3% copper. In that portion of the level northeast of the shaft, the ore shoot opens out to a width of 1 ft. for a short distance in a small stope, then breaks up into several small stringers and practically pinches out at the northeast breast.

Water above the bottom level, probably 100 ft. below the level just described, prevented an inspection of it. The shaft being tightly cribbed for most of its depth, the vein could be seen there only in places. In these places it appeared as narrow stringers of sulphides and malachite stain in the country rock.

The equipment consists of a shaft house with timber shed and blacksmith shop, in fairly good repair, and a boarding and bunk house for eight or ten men. In the shaft house are a small friction hoist, with cable removed, boiler and headframe.

Albert G. Wolf.
The property of The Express Headlight Mining & Development Company is situated in the Kerber Creek Mining District, Saguache County, Colorado, altitude about 9000 feet, 12 miles from the Villa Grove station of the D & R. G. R. R., by a good wagon road with no bad grades open all year round. The property of the Express Headlight Mining Company consists of two patented claims giving a length of 3,000 feet along the apex of vein, also 1500 feet along the vein unpatented, in the Exchange Claim, 3 other claims located on the side lines of the above claims. The property is developed by a vertical shaft with a level at 96 feet, bottom level 234 feet deep, 16 foot sump. 130 feet of drifting has been done at this level and assays obtained in value from 1/4 ounce to an ounce and a half in gold, and from 20 to 128 ounces in silver also considerable copper sulphide occurs throughout the vein, which has a width of 2 to 9 feet, the gangue is grey and white quartz rhodocrosite and fluor spar.

The formation is Andesite and orthoclase porphyry with felsite and breccia dykes in connection with vein.

We have abundance of timber for mining and fuel purposes and a plentiful supply of spring water. One mine (Eagle) on the same vein has produced over $200,000 from a shaft, 500 feet deep with very little lateral work. The mine is equipped with 40 H.P. boiler, nominal 20 H.P. hoist, Cameron pump, 2 Sullivan machine drill for steam or air.

We have also developed on the 96 foot level ore which assays from 1 to 4.56 ounces gold and from 50 to 220 ounces silver, or a value of from $50 to $200 per ton.

Address John Mackenzie
Villa Grove
Colo.