DIVISION B.

THE TRIBUTE SYSTEM:

We have a very large territory, part of which is practically undeveloped and the other part of which has been very admirably developed from the standpoint of underground transportation but very poorly developed from the standpoint of the ore seeker. The development of this great area of complex veins by any system which involves doing the work by paid labor would be a herculean task, not only from the financial standpoint, but from the standpoint of successful superintendence. The vein system is so intricate and the ore bodies are so extremely small in comparison to the area to be prospected that successful development would require the constant attention of a dozen trained men. The successful ore finder is the man that watches every little indication in every foot of development and is always prepared to follow up a favorable indication. Obviously there is nothing but self-interest that will make a successful ore finder of the average man. The way to arouse his self interest is to give him a lease.

At this particular time there are a very great number of men in Cripple Creek who want to operate under the leasing system. I cannot see how we can do better than to avail ourselves of this condition of affairs. As I understand the situation we cannot decide upon any plan of action that will require a long campaign. If I am informed aright we must simply do the best possible for the property pending the settlement of certain lawsuits. This condition of affairs will, I presume, necessitate limiting any leases that are granted both as to time and depth.

A large part of our territory is penetrated by workings connected with well equipped shafts or tunnels and in this territory I am convinced that a very general adoption of the "tribute" system will be the best thing for us. The tribute system is that one in which small blocks underground are leased
to working miners, the company doing the hoisting and exercising a general superintendence over the work. The advantages of this system are manifold.

We already have the equipment and the long drifts. It is far better for the plants to be kept in operation at the expense of the lessees than it is for them to be idle and have a number of little plants spring up around them at our expense. If a lessee is obliged to erect his own plant he must charge off the cost of that plant against the ore. In other words he will demand such royalties that it will be a good gamble for him to go to the expense of a plant. It is true that at the present time one could not expect any higher royalties than some people have voluntarily offered to pay, but I think no permanent good will result to the company by accepting such propositions. Unless there is a fair proposition of successes made it will be very hard to re-let our ground when the unsuccessful ones drop out. Another advantage in leasing underground blocks lies in the fact that the class of men who will take the leases will be men who will stake their labor and their labor only against the chance of success. This will eliminate the man who takes a lease simply to sell to the first comer or the man who takes a lease on the hopes that his energetic neighbor will find ore and so increase the value of the neighboring leases. It will also make us independant of the lessee with money. There seem to be plenty of this class at present but there may be a dirth in the future. I believe there will always be in Cripple Creek a class of hard working miners who would rather "tribute" than work for wages. This system attracts the very best class of workmen; as can be seen at Idaho Springs, Georgetown or Silver Plume where this system has been in vogue for a long time. There has never been a labor strike on Clear Creek since this system was introduced. The Dives-Pelican mine has paid three million dollars in dividends and is still paying them. The late Mr. A. L. Collins told me that the mine would have shut down long ago but for the leasing system.
There is another advantage of leasing in blocks underground which is more or less of a delicate subject. I have learned by associating incognito with prospective leasers that the custom of cheating the owners on high grade ore is of somewhat general practice. One man that I met going through some of our surface works on Bull Hill confided to me the fact that the Specimen vein was a good one to lease on because, if ore was found, it was very likely to be so high grade that no royalties need be paid on it. Where the company does the hoisting this plan of theiving will be difficult to carry out to any great extent. But perhaps the main advantage of the tribute system lies in the fact that close superintendence can be exercised over all work. A leaser has no interest in any ore that is too low grade to ship. He has no interest in keeping levels and entry ways passable beyond the term of his lease. He cares nothing about the safety of abandoned stopes and in dozens of ways his interests conflict with the interests of the mine owner. Where the leaser operates his own plant it is necessary to give him a long lease and then it is almost impossible to make him keep his mine in shape. Where the company operates the plant short leases can be granted, careful superintendence can be exercised, ore too low grade to ship can be put on the low grade dump (where it means a future source of income) and good clean work can be enforced by yielding the power of refusal to renew leases.

Mr. Thomas Cornish of Stratton's Independence has had a very great deal of experience with the tribute system. He says the system is very successful around Silver Plume and Georgetown and that he intends to introduce it at the Independence as fast as he can. He makes a strong point of the fact that it is not practical to work leasers and days-pay men on the same level for the leasers will steal supplies from the days-pay men.

The details of the system that he has found most successful are as follows: The company furnished all ore cars, timbers and railroad iron free, and the mine superintendent is
empowered by the terms of the lease to direct the timbering and the aligning of the main drifts, the leasers doing the work. The company does all hoisting free of charge and does nothing in the store-keeping line. His reason for this is that any bills the company may have against the leaser will be good if the leaser strikes ore, but not otherwise. (At first it might be practical to force the leaser to put up a bond, but the enthusiasm of leasing on the Stratton estate will soon wear off and then it will be difficult to get leasers who will put up bonds.) The company cannot avoid sharpening the steel and a charge of 5 cts. per bit for hand steel and 10 cts. for machine is made. Wherever possible it is best to have nothing but tribute under ground in any shaft and to have everything portable put safely away.

Mr. Cornish believes in letting everything by the bidding system on flat royalties. That is, having a given block to lease, whether a prospecting block or one with ore in sight, he would get as many reliable men as possible to bid on it and let it to the highest bidder. The flat royalties lends itself readily to this method of procedure. In letting prospecting leases he thinks it is good policy to furnish air and a machine drill to the leaser free until he strikes ore. After that charge him the regular rates of $4.50 per day for the drill and $3.00 per day if a small one. In brief, Mr. Cornish's idea is to offer every encouragement to the prospecting tributor and to get it back by exacting the maximum royalty when ore is found. He says that where prospects were good he generally got 45% to 55% flat even when there was a 100 ft. drift to drive before ore could be expected.

Mr. Marshall Draper of the East Notaway Mine of Central City says that his mine could not be worked at a profit under any other system. He estimates that his men have not received on the average $1.50 per day but are happy and contented and he has no trouble in letting his leasers. The details of his system are as follows; The company furnishes railroad iron, timbers and cars free and sells all kinds of mining supplies to
B. The tributors. The company does the hoisting and tool sharpening. A charge of $1.00 per ton is made for hoisting ore and 5 cts. per bit for sharpening steel. He charges a straight graded royalty running from 35c on $15.00 to 75c on $100.00 ore, net values, and to encourage prospecting he gives to prospecting tributors a certain amount of ore free of royalties in case the prospect is successful. He says he has very little trouble with bad bills on the part of his tributors. I imagine his mine is one where he can generally give a tributor a little ore of a very low grade with nearly every lease and so he secures his bill for supplies even if the tributor makes nothing.

Mr. Jacob Robson, the manager, of the Dives-Pelican has a system similar to that of Mr. Cornish except that he has been so long in the business that he generally decides upon what royalties he should get for a certain lease and gives the lease at that figure to whomever he decides is entitled to it. In prospecting leases he often pays $2.00 or $3.00 per foot to the tributor and gives him a lease on a block besides. He says that the Dives-Pelican would have closed down long ago but for this tribute system. The mine has paid over $3,000,000.00 in dividends, most of it resulting from the leasing system.

The Isabella mine has done a certain amount of tributing and there follows an extract from one of their leases which explains itself.

That if the said premises are worked from the main levels and inclines of said mine, and said Company hoists the ore and waste therefrom and disposes of the same at the surface in bins or on the dumps at its expense, then the said lessees shall be chargeable with and pay therefor thirty-five (35) cents per ton of shipping ore and twenty (20) cents per mine car of waste; Provided, however, that said lessees shall do the underground traming and waive all claim to or interest in the waste or its final disposition; but it is expressly understood that in case of accident to the machinery or workings, or obs
structed to their use by fire, riot or legal process, that said Company shall not be compelled to remove such material, nor be liable for damages for such failure."

At the Anaconda Mine a tribute system has been in vogue for several years and is very successful. When they introduced the system they had on hand a lot of supplies and these they sold out to the tributors without losing a dollar on bad debts. The plan at the Anaconda is to have the lessees furnish everything even to timbers and track. The mine allows the lessee the use of the ore house and such trackage as was down when the system was adopted and the mine furnishes cars and does the tramming (by mule) charging 10 cents per car. The mine also sharpens the steel at 2 1/2 cents per bit. The lessees are required to keep everything in repair. They also pay 3/4 of the output tax. The royalties are 25% straight. The blocks are 300 ft. square, surface measure, and the limits are the vertical planes of the boundaries. There are 14 sets of lessees and the ore house contains 5 bins. They get along very well by using the bins in rotation. The mine makes money on the tramming and tool sharpening. There is attached a copy of one of their leases.

In sharp contrast to this system is the system in vogue at the Anchoria-Leland. Mr. Howbert tells me that the mine would have shut down long ago but for the tribute system. Here the mine furnished everything except the assaying. The lessee puts in his labor only and the high royalty of 50% flat is charged throughout. A poor mine has been kept going for three years in this way and while no dividends have been paid, money has been made to develop some other property belonging to the company and Mr. Howbert says the mine is in better shape now than when they began the tribute system.

At the Doctor Jack-Pot also, there is a tribute system in operation. Mrs. Eads the superintendent says that there are parts of the mine which could not be worked at all under any other system and that the better parts of the mine pay better under this system than under the days-pay system. The de-
tails are as follows: The mine does all the hoisting, at
25 cents per car and furnishes cars and rails and ore house
free. The mine does all the tool sharpening charging 2 1/2
cents per bit for hand steel. Where the lessees wish to use
an air drill the mine rents a drill, furnishes hose, oil and
sharpens steel at the following rates.

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<th>Drill Size</th>
<th>Rate</th>
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<tr>
<td>2&quot; drill</td>
<td>$3.25</td>
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<tr>
<td>2 1/4&quot; drill</td>
<td>3.75</td>
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<tr>
<td>3 1/2&quot;</td>
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The mine does not sell any supplies to the tributors but does
sell timber and steel: the reason for selling steel is that
where the men bring their own steel they are, of course, en-
titled to take it away again and they generally take away more
than they bring. So the mine sells steel by weight to the men
and buys it back by weight when they leave. The tributors
are charged for the timber because they demand too much timber
otherwise.

THE BEST SYSTEM FOR US.

I would suggest the following system for our mines: The
mine does the hoisting and, if there is sufficient tonnage to
pay, the mine should introduce a cheap tramming system and
handle the dirt from the long drifts or tunnels. A charge of
25 cents per mine car for hoisting and 10 cents per car for
tramming would be fair. The mine sharpens the steel at
2 1/2 cents a bit for hand steel and rents machine drills at
the Doctor-Jackpot rates, namely:

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<tr>
<td>3 1/8&quot;</td>
<td>4.50</td>
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The mine furnished cars, ore bins, railway iron and timber for
the main levels free but charges for all other timber, including
ore chutes.

All timber and improvements put in by the lessee become
the property of the mine as fast as put in and may not be re-
B. S.

The mine weighs out steel to the lessee and weighs it in again if he leaves, a charge being made for the difference in weight at market rates.

Where a lessee starts in on ore the royalty must be determined by bidding, or by the manager, in each individual case.

On prospecting leases special inducements must be offered. A flat royalty of 25% is a pretty fair inducement and is probably all that will be necessary for sometime to come. As far as possible days-pay men and lessees should be kept separate.

The terms of the lease should give the management complete power of superintendence in all matters affecting the safety or operating conditions of the mine. All ore too low grade to ship becomes the property of the mine and the lease should stipulate that low grade ore must be kept separate from waste as far as possible.

The wording of that part of the Isabella lease pertaining to hoisting, as quoted above, would be well to follow.

The other stipulations and safeguards as set forth in the blank lease already prepared by our company are all that could be wished.

Underground leases are generally let as blocks on a certain vein and great care must be exercised that the blocks do not conflict.