The Mines' basketball season was brought to a close on March 1, when the Ore Diggers were successful in defeating the Mount St. Charles squad in Butte by a score of 24 to 16. With this victory the Miners tied for third honors in the state and finished a more successful season than was expected, considering the adverse conditions under which they were forced to train during the year.

At the beginning of the basketball season 19 men reported as candidates for the team. In general, the Mines' shooting percentage was lower than that of the opposites. When a team had the advantage of both the percentage and the number of shots, the game obviously appeared one-sided. The game with the U. of M. was such, and incidentally it was the most severe defeat sustained by the Ore Diggers. In this game the Mines counted but five times in 38 chances, making a percentage of 13. The University counted 13 times in 54 tries, making a percentage of 18.

In the final game of the season, with Mount St. Charles, which the Mines won by a score of 24 to 16, the condition was reversed, in that the Mines had both the highest percentage and the largest number of shots. The game originally appeared one-sided. The game with the U. of M. was such, and incidentally it was the most severe defeat sustained by the Ore Diggers. In this game the Mines counted but five times in 38 chances, making a percentage of 13. The University counted 13 times in 54 tries, making a percentage of 18.

In rebuilding, the general architectural design has not been changed, but the entrance has been constructed in the center of the eastern side, facing the city. The building is connected to the main hall by a concrete underground passageway similar to the one that connects the latter to the metallurgy building. The tunnel enters the main building in the students' locker-room and all the steam and water pipes, as well as the electric wiring, are taken to the new building through it. At present, all the heating, plumbing, and lighting fixtures are in place; the floor has been laid and it will not be long before the drawing room and office equipment can be arranged in place.

The lower floor contains two large drafting rooms, one in the northern part of the building and the other in the southern part, being separated by a large office and a cloakroom. The northern drawing room, providing space for 60 tables, will be used by the freshmen for their work in mechanical drawing and descriptive geometry. The sophomores will have a drawing room in the southern half of the building for their topographical work. There will be a room here for 48 tables. Both of the drawing rooms will be well lighted and heated.

Attempts to Be Made to Develop Track Athletics.

With the basketball season having drawn to a close, considerable attention is being centered toward establishing a track team. In previous years there has always been a certain amount of comment in this respect, but unfortunately the project did not materialize. It is hoped this year that a team will be organized, and with coach "Chuck" McAuliffe backing the undertaking, there is every reason to believe that a team will be organized and developed.

In practically all the larger schools, track and field events, as well as baseball, are the sports which command more interest from the students. Most colleges find time and enough interested students to develop teams in both spring sports. Other schools confine their attention to one. Where the weather is not favorable to work.

COACH McCAULIFFE REVIEWS BASKETBALL AT MINES

Ore Diggers Finish Basketball Season and Tie for Third Place in State Intercollegiate Race.

The State University and the State College tied for first place honors.

Comparative Figures.

It was a noticeable fact, throughout the season, that the team which made the highest percentage of their shots count did not always win the game. The reason for this is that the losing team had fewer shots at the basket. Such was the case in a number of instances in which the Mines was defeated. In general, the Mines' shooting percentage was lower than that of the opponents. When a team had the advantage of both the percentage and the number of shots, the game obviously appeared one-sided. The game with the U. of M. was such, and incidentally it was the most severe defeat sustained by the Ore Diggers. In this game the Mines counted but five times in 38 chances, making a percentage of 13. The University counted 13 times in 54 tries, making a percentage of 18.

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KEEPING UP

During the past few weeks there have appeared upon the bulletin board several announcements in regard to fellowship and scholarship appointments at colleges and universities throughout various parts of the country. On first consideration it may appear that such appointments are quite limited in distribution and available only at the larger institutions. But very little investigation will serve to prove this statement to be erroneous.

In the Bulletin of the National Research Council, published by the same council of the National Academy of Science, there are outlined for this year some 2,100 fellowships and scholarships, all of which are limited to work of a purely scientific nature. It is noticeable that practically all of the scholarships and fellowships offered are for purposes of stimulating a greater interest in research work, and many of these include such work as is very intimately connected with the metallurgical and mining industry. The high importance of this type of work is being realized more and more every day, and in fact it is expected that the up-to-the-minute advantages in laboratory experimentation that have been made possible through the erection of the new metallurgy building will carry on work of this kind. This, of course, is especially applicable to the technical schools.

Our school is in a particularly good position to undertake work of this character because of the vicinity in which it is located, the access it has to those things in close conjunction with mining and metallurgy, and now especially to the advantages in laboratory experimentation that have been made possible through the erection of the new metallurgy building.

The Bureau of Mines has a station at Butte and it seems only proper that the work should be carried on to a certain degree through the graduate students of this and other schools. This, of course, would be made possible most readily through establishment of fellowship or scholarship appointments through the school. We feel that every effort should be made in an endeavor to secure this most important addition, but it is only through actual action of those authorized that the undertaking can be executed successfully.

WITH THE CO-EDS

On Wednesday evening, February 21, Miss Charlotte Russell and the co-eds entertained at a Mah-Jongg party at the Russell home. After an enjoyable evening had been spent, a delicious luncheon was served. Those delicious were: Misses Unice Brown, of Helena; Florence Gordon, Frances Russell, Alice Angove, Charlotte Russel, Margaret MacLanahan and Elizabeth Chapman, and Misses Caraway, Tanner, Toole, Steadman, Naughton, Quin and Brown.

Helpful.

Wild-eyed woman, rushing into hardware store: "Have you any carabolic acid?"

Clerk: "No, madam, but we have one stock of guns, knives and ropes.

Safety First.

Senior: "Say, kid, lend me a dollar and I'll be indebted to you for life."

Junior: "Yes, just that what I'm afraid of."

Even Alice Couldn't Do It.

F. G. (whispering in English class): "Oh, Alice, there's a great big black bug on the ceiling."

Alice: "Well, step on it, and stop bothering me."

Muggs: "Ma diable, what is the English for 'Bon-Ami'?

Cubbs (receiving an inspiration): "Sapolio!"

A colored woman brought her baby to the parsonage to be christened. The parson inquired what she wished the child to be called.

She replied: "Opium, suh."

"Opium," said the surprised parson. "Opium isn't a name for a child. Opium comes from a wild poppy."

"Her poppy sho' am wild, dat's de reason," affirmed the mother.

Senior: "Women—the brutes! But I likes them."

A co-ed was reading a book when her mother said to her: "I hope that's a nice book you're reading, dear.

"Oh, it is, mother; but you wouldn't want to read it, because it's awful sad."

"How sad, dear?"

"Well, the man dies in the end and the girl has to go back to her husband."

We Wonder Why.

The boys dress up to preside in parliamentary law.

The co-eds burn incense?

T. A. Anderson is the cutest boy in school?

Muggs cut bangs?

Mike is bashful?

Sawyer and Thompson don't keep appointments?

Alice bobbed her hair?

Squeaks ceases to be squeaks during quizzes?

Chappy refuses bets now?

In the Co-ed Bookcase."

The Tin Solder—Fat Matlock.

The Glory of Youth—Alice Angove.

The Sheik—Quinn (Pungo).

The Dim Lantern—Tanner.

Textbook of Geology—Weyerstoll.

Contrary Mary—Muggs.

Flaming Youth—Siger.

Taby Tyler—Sawyer.

Charming Wildflower—Cherie.

Wild Flower—Chappy.

Sweet Little Devil—Boyce.

Four Horsemen—Ryan, Toole, Walch, Havey.

Black Oxen—Modesty Forbids.

On the Staircase—Squeaks.

Innocence Abroad—Senior Class.

Kid Boots—Caraway.

Simon Called Peter—Jim White.

FRESHMEN NOTES

Another month has rolled by and, in the course of its passing, the school life of the freshmen class re- mains at a standstill. But at this juncture a little bit of scandal has crept in upon our monotonous lives. The time, place and chief actors in this "shieky" affair are: Tuesday night, February 26, at the high school gymnasium, when F. Schnoebelen and H. A. Caraway, popular members of the freshman class, proceeded to vamp a couple of pretty misses who sat directly opposite our shiefs. Like the knights of old, our heroes started a correspondence with the fair ladies, so the services of a small boy were enlisted to convey their notes of affection. But it seems that the ladies had very poor taste, inasmuch as they did not reply to our heroes' written appeals. But the flirtations were brought to a sudden close when the basketball game ended, and the sweet young things entered Gamer's, where they found several of the "arsenic eating" juniors going to purchase motorcycles. Wonderful chance for some good mechanic to make a fortune repairing the vehicles. It would be a great treat to see "Elv" Dabkin spread on a motorcycle.

Some of the "mud slinging" seniors were recently caught throwing portions of Miss Russell's garden at the co-eds. We demand an apology—our women folks must be protected.

The "Duke" broke out in a flannel shirt. Must have been a tough shift or he is just trying to give us the impression that he is working.

The sops have fallen down in their dance, and the seniors refuse to edit an annual: What say, juniors? Shall we follow suit and refuse to give a junior prom, or shall we continue as in the past and give a dance that will be the leading social event of the season, as all our other dances have been?

SENIOR NOTES

Plans for a trip, by the members of the senior class, to the mining and smelting centers of Utah and Colorado, are under way. As at present scheduled, the seniors, accompanied by members of the faculty representing at least the departments of mining, metallurgy and geology will leave on

(Continued on Page 5)
The Occurrence of Tin and Precious Metals in Butte

(Continuation from last month of a paper by Murl H. Gidel, presented to the Montana Society of Engineers at Butte, Montana.)

Brief of the Recovery of Precious Metals from Anode Slimes

The anode slimes which the Rrilian Copper Works receives is subjected to a series of metallurgical processes in which the silver and gold are recovered in a pure condition. The condition is that only a fraction of the possible recovery is attempted. Small quantities of platinum and palladium are also recovered, but the commercial demand for these two metals is so small that only a fraction of the possible recovery is attempted. Small quantities of platinum and palladium are also recovered, but the commercial demand for these two metals is so small that only a fraction of the possible recovery is attempted. Small quantities of platinum and palladium are also recovered, but the commercial demand for these two metals is so small that only a fraction of the possible recovery is attempted. Small quantities of platinum and palladium are also recovered, but the commercial demand for these two metals is so small that only a fraction of the possible recovery is attempted. Small quantities of platinum and palladium are also recovered, but the commercial demand for these two metals is so small that only a fraction of the possible recovery is attempted. Small quantities of platinum and palladium are also recovered, but the commercial demand for these two metals is so small that only a fraction of the possible recovery is attempted. Small quantities of platinum and palladium are also recovered, but the commercial demand for these two metals is so small that only a fraction of the possible recovery is attempted."
COACH MAULIFFE REVIEWS BASKETBALL AT MINES

(Cont. from Page 1.)

This provides that the man upon whom the foul was committed must shoot the free throw. This change had been advocated by experts for several years—in fact, ever since the four-person foul rule was incorporated. Up to the past season one highly developed shooter did all the free throwing for the team. It is a fairer proposition all around to let the man fouled shoot the foul.

Standardized Officializing.

Year by year the game of basketball has been standardized more and more. This has been very apparent during the last few years, but over the same period of years officializing in general has not advanced toward anything that can be called standardization. It was noticeable that officializing was far from consistent in Montana, to sections, which is by no means general, officializing has been standardized until it has become a profession for some. The officials in some sections of the country, and especially in the east, belong to a "Central Board of Officials," which was organized in 1914. Previous to that year, officializing offered little to attract the candidates. In Montana the situation is practically the same at the present time as that which existed in other sections of the country prior to 1914. To be a knight of the whistle in this section at the present time requires about every physical qualification that belonged to the warrior knights of old. This would have to be combined with the nerve and courage with which those ancient gladiators were said to be endowed. In fact, the official has to have everything except armour and spear, and even these might come in handy at times when he is referred to by the spectators as "Jessie James without gun and ball."

Official’s Responsibility.

In several Mines’ games this year there was rough play and in most cases this could be reflected on the official, although the responsibility, as a rule, was placed upon the players by the spectators. If an actual foul occurs on the floor it is generally the fault of the official. Fights are not precipitated instantly, but are the result of unchecked squabbling between opponents. The official should study the players and warn any belligerent before anything develops. A fight in a game spoils the contest and does not boost the reputation of the official.

Final Games.

The Mines engaged in the follow-

ing games during the last few weeks of the season:

Montana U 46, Mines 11.

On February 14 the Ore Diggers went to Missoula, where that night they tangled with the Montana State University Grizzlies. The Bruins played in fine form and after a few minutes of even going, during which the Miners promised to hold their own, made the game a runaway affair with the score one-sided. The Butte collegians seemed lost on the unusual-ly wide floor and did not manage to get back down to the floor to guard against the shots of "Jiggs" Dahlberg and Badgeley, the Grizzly forwards. Carney at center, all of whom were unusually accurate at hitting the hoop. Oscar Dahlberg, at guard for the university, was also decidedly effective. For the Ore Diggers, Havey and Matlock, at guard, and Ergebeger at forward, showed best. The final score was, Montana U 46, Mines 11.

Bozeman 31, Mines 18.

On a night of February 22, at the Butte high school gymnasium, the Miners dropped a game to the Montana Aggies; the score being 31 to 18. During the first quarter the contest was fairly even, but in the rest of the game the aggressiveness of the heavier Bobcats prevented the lighter Miners from getting the lead. The game was somewhat rough, resulting in 14 free throws for the Bobcats and 5 for the Miners.


The last game of the Bozca-Mines series was played Saturday evening, February 23, at the high school gymnasium. The Miners made few connections with the hoop, while the Bobcats, especially Hartwig, threw them in from all angles. The visitors started with a swift attack, Hartwig getting three field goals, Romney and Cogswell also counting. Beck, substituting for Quinn, annexed a field counter and later Egeberg connected twice for the last swing of the Miners.

Mines 22, St. Johns 20.

On February 26, the School of Mines’ basketball team clashed with the strong St. John’s team of the city’s church league. Although the Miners exhibited a flashier brand of basketball than their opponents, they were forced to go at their top speed in order to keep Boyer, Long and O’Connors from getting in their work. The Miners jumped to the lead a few minutes after play began, when Egeberg sank the ball in the net from the sidelines. The fans were then treated with some excellent work by the Mines. They worked the ball under the basket numerous times only to lose it when their tries at scoring went wild. During the half the Miners succeeded in rolling up a score of 15 to their opponents’ 7.

The second half opened with a burst of speed by St. John’s. Boyer and Long broke their way through the Mines’ defense several times and succeeded in bringing their score within one point of tying the count. But the Miners suddenly recovered themselves and managed to keep in front of the rest of the time. When the final whistle blew the score stood 22 to 20 in favor of the Miners.

Mines 24, Mt. St. Charles 16.

Montana Mines beat the Mt. St. Charles College at the Butte high gymnasium. February 29, the teams evening their count for the year and tying for third place in the Montana collegiate race.

The Mines ran wild in the first half but had to cut out the visitors in the second half to win the game, 24 to 16. Quinn, center for the Mines, started the scoring from the free line and was high point man of the game, running up a 13 to 6 lead in the first half. The Mines displayed a perfect short passing game that found each relay ending with a man under the basket in an easy position to shoot. With the start of the second half the Saints began to climb in the scoring column and came within one point of the Mines, who then rallied and in a few minutes put the game on ice.

NEW ENGINEERING BUILDING NEARLY COMPLETED

(Continued From Page 1.)

and all provisions essential for carrying on drawing in the most convenient manner have been amply cared for.

For the Upper Classmen.

Directly in front of the office an alcove is a stair leading to the second floor, where the junior and sophomore drawing rooms are placed. The rooms are similar to the freshman and sophomore drawing rooms at first and are placed directly over them. Each will contain 42 drawing tables. Located between the drawing rooms there will be two offices, a file room, a well equipped blueprint room and a washroom. The file room will conveniently take care of all the plates, maps and drawings used for reference as well as those completed by the students during the school term. The blueprint room will contain all the necessary apparatus for making and drying prints.

The engineering building will do for the drafting department of the school what the metallurgy building did for the metallurgy and chemistry departments. Along with the advantages in the new building there will be the utilization of the rooms now occupied by the drawing classes and the offices in the main building. With these new improvements the Montana School of Mines will easily be able to care for 300 students.

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POSSIBILITIES OF TRACK AT SCHOOL OF MINES
(Continued From Page 1)

out of doors the school has track and field events when it has a gymnasium only available for indoor training during the disagreeable spring weather. The schools of the southern states are naturally inclined in the direction of baseball. In most cases this is the major spring sport in the schools in that section of the country. The early spring makes it possible for them to train out of doors at a time when the schools farther north are confined to a gymnasium.

The School of Mines has not turned out a track or baseball team for many years. The reasons for this are various. In the first place, the weather in the vicinity of Butte during the months of March, April and May is less favorable for outdoor work in either baseball or track, than that of any other section of the state. In addition to this we are handicapped by the respective class trips, which occur over a period of our best spring weather. For these reasons there has been a lack of interest for the spring sports, and consequently it has been almost impossible to develop a team for competition.

This year we are faced with an additional handicap in not having a gymnasium. Next year we will have one of the most up-to-date gymnasiums in the state. It will then be possible to be well started on indoor training for track, before the basketball season has been completed.

It will be impossible, for the reasons stated, to develop a team for competition this year. However, it is planned that certain things shall be accomplished when the weather permits. We will at least determine just what material we have in school for the development of a team next year. This will be done either through an interclass meet or through a mass athletic meet, in which it would be desirable to have every student take part. This should be specially interesting to the individual, as it will inform him exactly of his ability. We may possibly have some Paddocks, Joe Rays or Osbornes among us—who can tell? Plans for the above will be announced later. It will be arranged so that it will not interfere with any spring trips and at a time when we are having ideal weather conditions.

SENIOR NOTES
(Continued from Page 2)

Butte on the morning of May 16, arriving in Salt Lake on the evening of that day. After spending several days visiting the smelting and refining plants in the vicinity of Salt Lake, the party will proceed to Denver, where a week or more will be spent on a tour of inspection of the plants and other things of particular interest to engineers in that vicinity. Among the Colorado cities, other than Denver, that the seniors expect to visit are Cripple Creek, Leadville, Colorado Springs and Pueblo. The class will be back in Butte not later than June 3.

During the latter part of February, the members of the senior class were accorded the pleasure of listening to a talk given by Mr. J. C. Owens, manager of the local branch of the Bell Telephone company. During the course of his talk, Mr. Owens very interestingly traced the growth and development of the telephone from the day when the stations were numbered in the thousands, to the present day, when there are more than 14 million stations in actual use in the United States.

Mr. Owens laid particular emphasis upon the difficulty experienced by the telephone company in its efforts to procure the services of men with the proper attitude toward the telephone business, with sufficient technical training to carry on the work of departments in which openings for technically trained men occurred from time to time.

Concluding his talk, Mr. Owens kindly invited the class to visit the exchange, assuring them that detailed information would be given them concerning the features of the construction and operation of the local branch.

Pung and Chow, two of the social tours of the senior class, were among the guests of honor at a Mah-Jongg party given by the co-eds, at the home of Miss Charlotte Russell, registrar, on Wednesday evening, February 27. Both of these gentlemen stated a preference for the frequent change of winds that occurred at the party, to the constant and relentless "sou’wester" that blew around the corners of the school the following day.

MAULIFFE AND SCOTT ATTEND BOZEMAN MEET
(Continued From Page 1)

Montana State College and Intermountain Union College, while Thursday night he acted in the same capacity when Montana State College met the University of Wyoming team. Having just one judge for a debate is a new thing, but where it has been tried out it is believed that this plan is more satisfactory than securing three. One judge who knows what is expected of debaters and who is fairminded, is more likely to give a just decision, this being the argument of the Montana State College debate coach who invited Professor Scott to attempt the unusual task.

Definitions:

Accident—A condition of affairs in which presence of mind is good but absence of body better.

Afterthought—A tardy sense of prudence that prompts one to try to shut his mouth about the time he puts his foot into it.

Appendicitis—A modern pain costing about $200 more than the old-fashioned stomach ache.

Argument—Assault and battery on the brain.

Athlete—A dignified bunch of muscles unable to split wood or sift ashes, or do any work which it would be impossible, for the reason just given.

Cinder—One of the first things to catch your eye in traveling.

Civilization—An upward growth that has enabled mankind to develop the college yell from what was once only a feeble war whoop.

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SHORT WINTER COURSE

As the year progresses we trust the value of the Acropolis, both to the school and to the alumni, becomes increasingly apparent. We hear from our graduates oftener and they are manifesting a greater interest in their alma mater. This interest contributes suggestions of many kinds, and one which is mentioned below, recently seems to us to be of particular merit.

"Why not," has been asked, "have at the Montana State School of Mines a short winter course for practical mining men similar to the short course given at agricultural colleges for farmers?"

Many prospectors and mining men would take advantage of the opportunity to spend the winter months in gaining additional knowledge of such fundamental subjects as geology, mineralogy, metallurgy and chemistry. Such a course would be very helpful to those who had not had the opportunity to have their courses recently seems to us to be of particular merit.

STATE BUREAU OF MINES

When the United States government held its inquiry into mining conditions in this region, a prospector who was present at the hearings made the suggestion that he wished the Bureau of Mines could arrange to give prospectors on request brief geological and engineering aid on a district or a mine, or a prospect.

This suggestion coincides with a thought we have had in mind for some time, namely, that the state Bureau of Mines and Metallurgy can be made of practical service to the mining industry of the state of Montana, conducted along lines similar to the work of various agricultural stations in their aid to the farming industry.

In establishing a state Bureau of Mines the legislature desired to assist in improvement of mining and milling methods and to assist in discovering and developing the mineral resources of the state. We feel that the service of the bureau can be of especial benefit to the mining industry of the state by being of especial service to the prospector, with whom our mines originate. Such a man obviously has not the means to employ trained geologists and metallurgists to aid in solving his problems. He deserves and has earned the especial assistance of the Montana State Bureau of Mines and Metallurgy.

PANNINGS

Wallis H. Lee, '23, who has been studying in the plant of the Ingersoll-Rand company, Easton, Pa., since last June, has been assigned as the Ingersoll-Rand representative at Birmingham, Ala.

Claude Newton, '19, who has been seeing the world since his last vacation, has at last been heard from in Bisbee, Ariz., where he has been for almost a year. He is now division engineer with the Copper Queen Mining company.

John A. Nuckolls, '22, writes from the University of Washington, where he has been studying since last summer, that he will secure his M. S. degree in June.

J. N. Peterson, '23, has finished with the Ingersoll-Rand company at Easton, Pa., and has been assigned to the liquid oxygen department of the Ingersoll-Rand company at Minesville, N. Y.

John Duthie, '05, whose address has been lacking in the Alumni Directory for the past two years, has been again located. He is field engineer with the Pan-American Petroleum company, Pasadena, Cal.

Willis Ellis, '08, has moved from Butte to Los Angeles. He is now field engineer for J. B. Murray.

Since the shut-down of the Barnes Copper company, John W. Johns, '06, has been located at No. 552 Hillside avenue, Helena, Mont.

Walter R. Werelius, '21, writes from No. 6018 Kimbark avenue, Chicago, Ill., that he is now chemist for the Barrett Coal Tar Products company, but that he is going to school again in June, taking a medical course preparatory for medical missionary service.

CHRISTMAS ON THE EQUATOR

By Donald D. MacLellan ('22), Guayaquil, Ecuador.

Christmas passed off rather quietly here, as such days generally do in places like this. The "Gringo" colony did everything in their power to create a Christmas atmosphere in such weather it was nearly impossible to December is the last month of the dry season here, and the weather is, if anything, warmer than usual; the hillsides are almost as brown as are the slopes of Big Butte in September, and the weather not unlike that of Fresno, Cal., in July.

Add to this the fact that there is not a Christmas card or anything else suggestive of the spirit of the season, as understood among Americans, for sale in this entire benighted land, and you have an idea of the job confronting the would-be creators of Christmas cheer in Portovelo. New Year's and Christmas, the weather being still dry.

Since then, however, it has begun to rain, and all the large and small grasses, birds, bees, bugs and earthquakes have sprung up wakely, each in its own way demonstrating its joy at being alive. Already after only one week of rain, the entire landscape has taken on the pale green tint peculiar to tropical vegetation; the birds, bees and bats sing most aggressively; while the playful little earthquakes frisk about underneath almost every eve-}

THE OCCURRENCE OF TIN AND Precious Metals in Butte

(Continued From Page 3.)

ride to separate them from the bulk of the gold in the electrolyte. The amount of platinum and palladium recovered in sponge form is small, averaging only about one ounce of the combined metals per million pounds of copper refined, which means that in order to get that one ounce approximately 15,000 tons of ore had to be treated through the smelting process. In other words, the average amount of copper recovered in the electrolyte was less than one cent's worth of platinum and palladium based on the present price of $120 per ounce for platinum and $80 per ounce for palladium.

It is only within the past 13 years that the copper refineries have been recovering these two metals. Formerly they accumulated and was shipped in the gold bars and was lost to the plants.

While the total amount of platinum metals recovered in the refineries is small, it is practically the only source of these important metals which this country has. In the native ores or platinum sands only furnish about 700 to 1,000 ounces of crude metals yearly.

Recovery of Precious Metals and Cadmium in Butte

In the electrolytic zinc plant at Great Falls, zinc concentrates are roasted to convert the zinc and lead sulphides into the oxide forms, to oxidize the iron and other metallic content of the ore. The process thus renders a product which is suitable for subsequent treatment in the zinc leaching plant. The roasted material, consisting largely of zinc oxide, is leached with the return solution or spent electrolyte from the electrolyzing department.

The leaching tanks are of the Pacific type, operated in series. Acid solution is run into the first tank and discharges into the top of the second, and so on throughout the series, the tanks being in series and the final discharge into the refinery. Roasted concentrates are added. The second tank discharges into the top of the third tank and so on through the series, the final discharge being into Dorr classifiers for removal of the sludges. Roasted concentrates are added. The second tank discharges into the top of the third tank and so on through the series, the final discharge being into Dorr classifiers for removal of the sludges. Roasted concentrates are added. The second tank discharges into the top of the third tank and so on through the series, the final discharge being into Dorr classifiers for removal of the sludges.

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