

October 1938

# Vol. III No. 4

# September Operating Results Excellent

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Gold production for the month of September at the Marsman gold producers was ₱1,187,927.14, from 55,282 tons of ore treated in four milling plants and 399,452 cubic yards of gravel handled at two placer operations. A new all-time high monthly output by San Mauricio, of ₱377,845.20, was the feature of the month's work. Operating results in general were excellent. The total output was practically the same as that of August, in spite of a shorter working month. The approval by the Securities and Exchange Commission early in the month

of the termination of the financing agreement between San Mauricio and Marsman & Company was an important feature of the period.

#### SAN MAURICIO CAPITAL INCREASE APPROVED

The Securities and Exchange Commission in Manila has approved the termination of the financing agreement between the San Mauricio Mining Company and Marsman & Co., Inc. Accordingly, Judge Ricardo Nepomuceno, SEC head, has issued an order authorizing an increase in the capitalization of San Mauricio from **P800,000** to **P1,000,000**. Of the 2,000,000 shares increase, Marsman & Co. nominees will subscribe at par to 1,500,000 shares in consideration of the termination of the agreement, and stockholders of the company will have the right to subscribe to the remaining 500,000 shares pro rata at ₱.40 per share.

San Mauricio will thus receive \$350,-000 in cash, in addition to the termination of the financing agreement by which Marsman & Company has been receiving 15% of net profits. Marsman & Company has agreed to waive its right to the next dividend to be declared on the new stock it so acquires.

Marsman & Company further agrees to continue financing San Mauricio, if such financing is necessary, without remuneration up to the end of the contract, August, 1940. A further condition is that the 1,500,000 shares of stock which Marsman & Company thus acquires can only be disposed of by sale limited to 500,000 shares in three successive 6-month periods.

The approval of the SEC on the deal has been awaited by San Mauricio shareholders since last June, when at a special meeting the holders unanimously approved the plan. Not only will the financial position of the company be improved substantially as a result of the action, but the stockholders will profit in dividends from the increased income thus assured.

The board of directors of San Mauricio met immediately following the decision of the SEC, and unanimously accepted the agreement. By virtue of the cancellation of the financing agreement, Marsman & Company has no priority rights in the profits of San Mauricio, but will participate as shareholders only.

#### **ITOGON MINING COMPANY**

Itogon production for the month of September was \$339.537.06, from 30.314 tons of ore treated. Recovery per ton, while extraction was **₽**11.20, was 86.28%. The development advance was 3,952 feet. Of the 2,384 feet of capital advance, 442 feet were in ore, as were 770 feet of the 1,568 feet of operating advance. The month's output was somewhat higher than that of August; recovery was ₱.30 higher per ton than for the previous month.

The concreting of the Taka shaft from the 200 level to the collar was completed September 18; this difficult job was accomplished without interfering with the hoisting operations, and at a cost lower than that anticipated.

The Sesame counterdrive was advanced 373 feet and has reached the projection of the 523 winze. Preparations are now under way to start a raise for connection with the winze.

On the 6 level Taka a crosscut intersected the hanging wall at 22 west; at this point the vein is about 3 feet wide, and averages higher than the usual mill heads. The main hanging wall drift on the 5 level Taka was advanced on a strong vein, although assays were very spotty. Work done on the hanging wall drift at 20 west has been encouraging.

The main drift west, 3 level Taka, has been advanced along the hanging wall of the old workings. Ore taken from this drift has more than paid for the cost of driving. Stoping on the virgin ground east of the old portal will be started shortly. Considerable work is under way on the new exploration program on the O level Taka. It is planned to start re-stoping the 23 section as soon as possible.

A 5-day shutdown of No. 3 ball mail because of a cracked trunnion bearing brought about a reduction of about 1,000 tons in the ore milled during the month. The crushing units operated satisfactorily; routine replacements made were

#### UNITED PARACALE MINING COMPANY

United Paracale treated 9,418 tons of ore during September for a production of P223,403.76. Recovery per ton was P23.72, while extraction was 89.79%.

Development advance totalled 1,586 feet, 933 capital and 653 operating advance. Of the capital footage 254 feet were in ore, as were 140 feet of the operating development.

107 drift south, San Antonio 100 level, was advanced 31 feet along the vein 2.7 feet wide. 107 H. W. drift north, San Antonio 100 level was advanced 42 feet along the vein 3 feet wide. 206 drift south, San Antonio 200 level, was advanced 21 feet along the vein 2 feet wide. 401 drift north, Baluarte 400 level, was advanced 65 feet along the vein 6.8 feet wide. 402 drift south, Baluarte 400 level, was advanced 48 feet along the vein 2.9 feet wide. 501 drift north, Baluarte 525 level was advanced 64 feet along the vein 4.8 feet wide.

201 drift south, Longos 200 level, was advanced 77 feet along the vein 6.2 feet wide with better than average assays. Big Bear crosscut west was driven 152 feet through granite. Malaguit crosscut west was advanced 137 feet through altered granite, cutting several narrow stringers.

Mill operations were normal and satisfactory during the month.

#### PHILIPPINE SMELTING COMPANY

The Cottrell treater house, substation, and machinery installation was 80% completed at the end of the month. The Cottrell plant will start operations by October 15.

During September the plant smelted 1,011.253 tons of concentrate (as sinter). The feed to the furnace consisted of 1,665.175 tons of sinter with 55.940 tons of slag.

new mantle and bowl liners for Nos. 1 and 2 Symons cone crushers.

General operating conditions during the month were good. The rainfall for the month was 6.4 inches.



# San Mauricio Mining Company

San Mauricio established a new alltime monthly high production record in September with an output of  $\mathbb{P}377,845.$ -19 from 9,005 tons of ore treated, an increase of some  $\mathbb{P}47,000$  over the August figure. Recovery averaged  $\mathbb{P}41.959$ per ton; extraction was 92.43%.

Of the 1,121 feet of capital advance, 548 feet were in ore, as were 82 feet of the operating advance of 445 feet. Average values were most encouraging, particularly in the Tacoma Section.

The Tacoma No. 3 north drift, San Mauricio mine, was advanced 103 feet on the 300 level, with high assays over' a width of 43 inches. Tacoma No. 1 north drift on the 400 level was advanced 61 feet during the month, with high assays over a width of 28 inches. The Tacoma No. 3 north drift on the 400 level was advanced 122 feet with high assays over a width of 41 inches. The 500 level north drift on the San Mauricio vein was advanced 147 feet during the month. There remains 84 feet to advance this drift to reach the crosscut point for cutting the Tacoma veins at 1600 N.

The 50 level adit in the Santa Ana mine was connected with the shaft during the month. The Santa Ana shaft was sunk 5 feet during the month, to a total depth of 443 feet. The shaft station on the 425 level was cut and timbered.

General stoping operations were normal during the month, with all stopes in good condition. The mine is in good condition with plenty of ore available.

The mill operated normally during the month.





By Ralph Keeler

# SAMPLING

Underground sampling, (the sampling of lode mines) is considered the hardest physical job that the mining engineer is called upon to perform. Care must be taken that the face is more or less smooth and clean, that all of the fine material broken during the cutting of the sample is recovered, that none of the country rock, or barren material, is left, and, above all, that the sample is not salted.

It may take a whole day, or even more, to secure one good sample of from ten to 25 pounds. Usually, however, a crew can take ten or more satisfactory samples underground a day. Mine car samples, and samples at various stages during the milling process are, of course, much easier to take, since by this time the material is more or less homogeneous.

An ideal sample should be a uniform grove, or channel, across the full widthof the ore, and no more; how closely this may be approached in practice will depend upon the material sampled and upon the time and care given to the work. ("The Examination of Prospects" by C. Godfrey Gunther).

There is no substitute for elbowgrease in taking samples. A hammer and moil (short length of steel tapered to a point) are the favorite tools for this work. Sometimes a small air-driven hammer drill may be available, in well-equipped mines.

The precautions to be taken in sampling are legion. To the layman investor the job of sampling seems the simple process of gathering up pieces of rock here and there. Here are 17 chances for error in hand sampling, as listed by T. J. Hoover in "The Economics of Mining."

1. Intentional salting for purposes of fraud (more about "salting" later).

2. Friable streaks in the ore, causing an excess of one such portion to enter the sample.

3. Hard streaks in the ore, causing a deficiency of one such portion to enter

(The first of this series appeared in the April Magazine)



the sample, the converse of the situation given above. If the friable portion in the above case was comparatively rich, the assay would indicate too high a value; if the hard portion were comparatively rich, the assav would indicate too low a value. The way to avoid this difficulty is to sample the friable and hard portions separately, even though they are quite narrow, even less than an inch in width in certain cases where rich streaks occur. This calls for very careful measurement, and also the allowance, in calculations, for possible variations in specific gravity of hard and soft portions.

4. Failure to recognize ore, thus leaving it unsampled. (A classic example of this is the zinc carbonate deposits of Leadville, Colorado, which went untouched for years before being recognized as ore).

5. Laziness and fatigue. The influence of these are felt in the actual cutting of samples.

6. Ignorance and inexperience. This can usually be corrected by instruction from the experienced engineer.

7. Failure to see and examine all openings. Blocked-up sections may contain low-grade ore, although they also have been known to contain bonanzas.

8. Failure to take samples at right angles to the vein, or, to make the necessary mathematical correction for width sampled.

9. Undue haste. A bad sample is worse than no sample.

10. Contamination of low-grade samples by material from high-grade samples adhering to tools, utensils, canvas, or machinery. Invariable and scrupulous cleanliness is the antidote for this. 11. Failure to include seemingly barren spots in the sample scheme. These must be sampled separately or else recorded and excluded from later ore estimates.

12. Inability later to mine to the exact limits of the sampled block. This must be taken into consideration in the calculation.

13. Failure to include, in samples or calculations, weak ground adjoining the walls of the lode which will be broken with the ore in stoping operations.

14. Failure to clean sampling surface. Clean thoroughly, even to the extent of blasting a new face where necessary.

15. Improper reduction to assay pulp of samples taken in the mine, or incorrect assaying.

16. False assumption that samples for irregularly spaced levels represent the average of each block. Such levels sometimes have followed the best ore, and the reasons for the irregular spacing call for investigation.

17. Confusion of samples. If critical samples cannot be allocated, unending trouble will follow. The remedy is painstaking recording and marking of all samples.

This list gives an idea of the difficulties encountered in accurate sampling and accurate sampling is probably the most important single operation in the complex routine of mining. Upon the results of sampling the investor risks his money, the mining company plans its mill, the metallurgist lays out his flow sheet, and the miner devises a method of mining.

Millions of dollars have been wasted because of misleading reports on samples. In some cases mining companies

THE MARSMAN MAGAZINE for October, 1938

6

# Boyles Bros. Drilling (Philippine) Co.

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THE MARSMAN MAGAZINE for October, 1938



have been formed, capital raised, development work started, and mills even built because those in authority were under the delusion, because of glowing reports on picked samples, that they had a mine and that prosperity was just around the corner.

There were surprisingly few cases of false samples, wrong assays, and salting in the recent mining boom in the Philippines, but those which did occur did much damage.

Many new companies capitalized on high assays, and used such assay reports in their prospectus and in adver-The reproduction of legitimate tising. assay reports showing values of ₱100 or ₱200 a ton in gold was of great psychological value in the sale of stock. Most of such assay reports were entirely true -but the catch was that they were assays of picked samples and were not at all representative of the entire proper-A classic example of the sad results tv. of the failure to sample a mine carefully and accurately may be seen in an abandoned mill in the Baguio district. This mill was built after a year's development work; ore reserves were announced as being high, certainly plenty to warrant a mill. After one month's operation, however, it was discovered that the ore had been exhausted—that the engineer in charge had not sampled the mine accurately. If a careful check of the ore reserves had been made by independent engineers, as is the usual practise before a milling plant is ordered, some ₱600,000 would have been saved.

Another outstanding case in the Philippines was that of a mine north of Baguio, where the general superintendent reported gradually increasing ore reserves over a year or more. An independent engineer sent to check on the

work came back with a glowing report studded with high assays. He returned a short time later, however, and discovered that he had been salted from start to finish. In this particular case the youth and inexperience of the engineer concerned caused his first highly optimistic report—which careful sampling soon corrected.

The classic in the Philippines, however, was the "discovery" of a new and virgin gold field in the Bicol area, south of Manila. Seven companies were formed, and the leading businessmen of Manila scrambled to put their money into the projects. Samples sent to Manila brought unfailingly good reports. Mills were planned, and most of the investors were ready to retire and spend their dividend checks. Two reliable operating engineers went to the property, took their own samples, and reported favorably.

It was not until a small mill had actually been bought, and an engineer of wide experience and outstanding ability engaged to install it, that it was discovered that the gold of the area was almost 100 per cent imaginary. The consulting engineer for the group of companies (who had been drawing some ₱3,000 a month in salaries) was extradited from Hongkong, (where he had gone hastily when the blow-up came) and was tried—the evidence was faulty. however, and he was acquitted. In this case a competent man could have sampled any one of the properties and learned the true facts of the case. A willingness on the part of laymen directors and investors to take assay reports at their face value is often noticeable, particularly in the stress of boom times.

In general, the mining engineer in taking samples learns to trust no one.



not even himself. It is only after taking hundreds of samples, and after checking and rechecking calculations, that the competent engineer makes an approximate estimate of ore reserves. This is particularly true of a new property, when the decision to build a mill, lease the mine, or abandon work, depends upon the results of sampling. In the case of an operating mine, sampling is very important, of course, but soon becomes a matter of routine. The mine superintendent sees to it that samples are taken from every face, and from, every car that leaves the mine; he can thus plan his development and stoping work systematically. The mill superintendent samples the ore from the time it reaches his plant down to the final tailing which flows to waste; he thus checks on the efficiency of his flow sheet and is able to alter it from time to time for better results.

(To be continued)



# COCO GROVE, INC.

Coco Grove produced **P92**,012.03 during September. This figure, while lower than that of August, was in accordance with estimates, since both dredges were working in low-grade ground.

The dredger Mary August handled 187,505 cubic yards of gravel from which P53,073.74 was produced. It dredged an area of 96,635 square feet to an average depth of 52.3 feet.

The dredger Anne Petronella recovered P38,938.29 from 175,880 cubic yards of gravel handled. It dredged an area of 80,220 square feet to an average depth of 59.2 feet. The average operating time of both dredges was 88%, which is very satisfactory. The reason for lost time was for stepping, clean-up, and minor mechanical adjustments.

The protecting seawall in front of the workyard and the town of Paracale has been completed and has proven its full value during the recent typhoon. The special protection around the Paracale lighthouse, consisting of a strong stone packing, was built and completed during September. It also proved its worth during the last typhoon.



# WORK ON CONSTRUCTION OF AMERICAN HIGH COMMISSIONER'S RESIDENCE IS STARTED BY MARSMAN BUILDING CORP.

Preliminary work on the construction of the U. S. High Commissioner's residence at the northern end of Dewey Boulevard is well under way, by the Marsman Building Corporation, successful bidder on the project.

The original contract for the building, stipulating untreated timber piles, was \$440,794 approximately. This figure has been reduced by \$59,832 by the use of Vibro reinforced concrete piles, and by making use of local tiles, and by changes in kitchen equipment, elevators, etcetera. The garage for the building will be constructed.

The building is being constructed on reclaimed land near the Elk's Club. Reinforced concrete piles some 65 feet long, about 640 of them, will support the whole structure, floor plans of which are published herewith for the first time. These piles are considerably cheaper than wooden untreated piles, as they are concrete and do not need to be driven to water level, as is the case with untreated timber piles.

Reinforced concrete will be used throughout the construction of the building. While air conditioning will not be installed at first, ducts will be provided in case it is decided to use such a system later. Tops of patios will be tiled wherever visible, while the main roof will be of galvanized iron.

About 95 per cent of the products to be used in the building construction are to be bought locally, while directly and indirectly some 70 per cent of all labor employed is Philippine labor. Some ₱200,000 will be paid in wages to the laborers. Building trade mechanics to be used on the project include the following: pile driving crews, steam hoist engineer, carpenters, lathers and plasterer, cement finishers, stone masons, marble workers, terrazzo workers, iron workers, sheet metal workers, tile setters, cabinet makers, painters, plumbers, electricians, floor finishers, mechanics, and laborers.

Philippine materials which will be used in building the AHC's new residence are as follows: PILES: driving shoes, cement, sand, gravel; CON-CRETE WORK: which include pile caps, slabs, walls, stairs, etc.,: form lumber, cement, sand, gravel; MOR-TAR: lime, cement, sand; ARCHI-TECTURAL CAST STONE: cement, sand, gravel, lime; ORNAMENTAL IRON WORK (while the actual production of the iron which goes into the fabrication of the ornamental iron work is not produced in the Philippines, the artisans engaged in the manufacture of the work are Filipinos): main entrance gate, gratings, grille,



balcony and railing; SHEET METAL WORK (the production of the metal sheets is not accomplished in the Islands, but the fabrication of the sheets into the finished product is done by Filipino skilled labor): ornamental sheet metal work, copings, cornice, flushing, metal roofing; TILE ROOF-ING AND TILE FLOORS; PLAS-TER: lime, cement, gypsum, hair and fiber, sand; MARBLE: floors, stairs, decorative work, partition; TERRAZ-ZO WORK: floors; WOOD WORK: lumber, forms, roof timbers (creosoted.) sheathing. flooring: MILL WORK: doors, frames, door and window trims, base boards, moulding, counters, flooring; CABINET WORK: cupboard and cabinets, panelling and wainsceting, drawer, bookcases and shelves, wardrobes.

Captain Leander Larson, QMC, is construction quartermaster for the U.S. Government and as contracting officer has full charge of the construction. For the Marsman Building Corporation, H. P. S. Page is in charge of actual construction.

Work was started August 24, 1938, and must be finished before February 1, 1940.

Two Vibro pile drivers at work at the site of the new AHC home, Oct. 4, 1938.





MEZZANINE FLOOR PLAN





FIRST FLOOR PLAN

THE MARSMAN MAGAZINE for October, 1938



15

### Suyoc Consolidated Mining Company

Suyoc Consolidated treated 6,545 tons of ore during September, from which P146,558.10 was recovered, a recovery per ton of P22.39. Extraction was 86.54%.

The development advance was 1,386 feet, 966 feet of capital and 420 feet of operating advance. Of the capital advance 77 feet were in ore, as were 15 feet of the operating development.

The 1846 winze continues in ore of

better than average grade and width.

The No. 1 shaft was sunk 45 feet during September and is 77 feet below the 2000 station. Heavy and squeezing ground encountered in this shaft has necessitated the placing of additional center supports to prevent failure of the wall plates.

Operations in general were normal, with operating expenditures slightly below those of August.





THE MARSMAN MAGAZINE for October, 1938

#### **MYSTERIES OF MINING**

This is the tenth in a series of features describing various interesting phases of mining and the mining industry.



Poisonous Cyanide has proven of inestimable help to the miner in his search for precious yellow gold. This drawing is the artist's portrayal of cyanide about to overcome the beautiful maiden who is symbolic of gold. Many of the important discoveries in science were made accidentally; most others were the result of the development of primitive methods through years of constant labor. In the mining industry this has also been the case. Flotation, for example, was brought to light by a school teacher washing greasy ore sacks for her assayer-brother; the development of the modern grinding mills came from the laborious hand process of breaking up rich ores with hand rocks.

Strangely enough, what was probably the most important invention that the mining industry has ever received was made to order, at a time when it was needed desperately.

The world's gold mining industry had languished for many years when the discovery of the Rand goldfields, in 1886 stimulated world wide interest in the search for the precious yellow metal. However, it was soon learned that the Rand ores, while plentiful, were comparatively low in grade. The amalgamation process then in common use, employing cumbersome and noisy stamp mills as grinding medium, was cheap but extremely inefficient—a recovery of 60 per cent of the values was considered good. Many of the Rand ores, besides being low in grade, were found to be unsuited for treatment by amalgamation.

The logical solution, then, was the discovery of a new treatment for gold ores in general and the Rand ores in particular. The metallurgists of the time, with their meager knowledge, set to work upon the problem with zest but their labors were of little avail. Dozens of proposals of one kind or another, most of them outrageously bogus, were eagerly grasped and tried.

Up to this time CYANIDE (a salt of prussic or hydrocyanic acid with the general symbol CN) was known only as a deadly poison, quite popular with the more subtle murderers, and of a little use in the infant arts of electro-plating and hotography. When, in 1887 three Englishmen, J. S. MacArthur, R. W. and W. Forrest, advanced a proposal to use potassium cyanide (KCN) as a solvent for gold, they were greeted with derision, chiefly because of the general lack of knowledge concerning the chemical.

Tests were soon made, however, and the new process was tried in New Zealand in 1889 and in South Africa; soon it was being used for the solution, of both gold and silver ores without previous amalgamation. By 1925 cyanidation had become general practice in the gold and silver camps of the world. The process has been responsible for a very large proportion of the world's production of gold and silver. It is remarkably efficient; free-milling ore extractions as high as 95 per cent have been achieved.

The basic idea of cyanidation is to grind the gold ore in cyanide solution (usually potassium or sodium cyanide), to start the dissolution of the gold at once. Heavy steel ball or rod mills are used for the crushing process. The product of the grinding mill is then classified, and the over-sized particles returned to the mills for further workingover.

Air plays an important part in cyanidation. After grinding, the pulp (as the mixture of ore and cyanide solution is called) is discharged into large tanks (made of wood, steel or concrete) for agitation—which is simply a mechanical stirring during which air is forced through the entire mixture and the dissolution of the precious metals thus stimulated.

After the gold has been dissolved, the pulp is run to various types of filters, and the solution containing the gold and silver is separated. Zinc dust is then added to this solution, and the gold, silver, and other valuable metals precipitated. This precipitate is recovered by the use of a filter, which separates the solid precipitate from the barren solution by mechanical pressure. The black precipitate is then dried, mixed

THE MARSMAN MAGAZINE for October, 1938

with flux materials, and smelted in a small furnace to remove impurities. The product of this operation is bullion, a concentrated brick of gold and silver, which is sent to the mint for further refinement.

That, in a nutshell, is the world's most productive process, in terms of gold and silver. There are many modifications of the process, and, of course, the operation of a cyanide plant is not as simple as it seem.

#### MINDANAO MINING COMPANY

Mindanao Mining Company produced P8,571 during September, from 36,067 cubic yards of gravel dredged.

In the Philippines, some 80 per cent of the five million pesos worth of gold recovered every month results from the use of cyanidation, either by itself or in combination with flotation, amalgamation, or mechanical concentration of one kind or another.



The first step in a cyanide operation. Ore going to the primary crushers, from which it will go to the ball mills to be ground in a cyanide solution.



THI. MARSMAN MAGAZINE for October, 1938

# MARSMAN AND COMPANY, INC.

#### **Producing Mines**

Name	Location	Type Property	Plant Capacity Daily	General Superintendent
Itogon Mining Company Suyoc Consolidated United Paracale	27 km S. of Baguio 98 km N. of Baguio Paracale, Camarines Norte, 200 km Sw of Manila	Gold Lode Gold Lode Gold Lode	1,000 tons 200 " 300 "	Warren Gilkison L. M. Robinson R. H. Canon
San Mauricio Coco Grove Mindanao Mining Company	15 km N. of Paracale Paracale Zamboanga, Zamboanga	Gold Lode Gold Placer Gold Placer	300 " 13,000 cubic yards	H. L. Barr F. A. Nowacki Frank Dale
	Properties under D	evelopment		

NameLocationType<br/>PropertyIn ChargeTuba ProjectTayabasGold LodeL. H. Hinckley

## EDITORIAL

#### ASSURANCE

The decision of the Supreme Court of the Philippines in the Gold Creek case, promulgated September 28, to the effect that a valid location of a mining claim prior to the establishment of the Commonwealth on November 15, 1935 segregated the area from the public domain, clears up a point that has been a source of great concern to the mining industry.

The point at issue was whether or not the Philippine Constitution would permit the granting of patents on mining claims located, but not patented, before the Commonwealth was inaugurated. The Constitution itself is contradictory on the matter: in one section it states that all mineral lands of the public domain and all natural resources belong to the State, and their disposition shall be limited to citizens of the Philippines or to corporations or associations at least 60 per cent of the capital of which is owned by such citizens. In another section, however, the Constitution says that citizens and corporations of the

(Please turn to next page)

Table Of Contents

#### Page

September Operating Results Excellent	1
San Mauricio Capital Increase Approved .	1
Itogon Mining Company	2
United Paracale Mining Company	2
Philippine Smelting Company	2
San Mauricio Mining Company	4
Mining For The Investor 5	5-9
SAMPLING	
Coco Grove, Inc.	10
Work on Construction of American High	
Commissioner's Residence is Started by	
Marsman Bldg. Corp 11-	15
Suyoc Consolidated Mining Company 1	6
Mysteries of Mining 18-	20
CYANIDATION	
Mindanao Mining Company 2	<b>:0</b> ·
Marsman & Co. Producing Mines	
	22

# THE MARSMAN MAGAZINE

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The magazine is sent to all stockholders of Marsman managed properties and to all staff members of the companies associated with the Marsman interests.

NOTE: All ore values, bullion figures, etc., given in this magazine are expressed in pesos based on gold at \$35.00 an ounce and silver at the market price. Figures given in monthly reports are based on mine assays, and may differ to some extent from final mint or smelter returns.

#### SUBSCRIPTION PRICE, #5 A YEAR.

RALPH KEELER, Editor and Business Manager

United States shall enjoy in the Commonwealth of the Philippines all the civil rights of the citizens and corporations, respectively thereof.

It was argued that "rights" did not include the right to acquire the possession of mineral lands. The spirit of the Constitution is clear—it was so drawn as to obligate the Commonwealth to respect all obligations incurred by the previous government. The letter of the Constitution, however, was somewhat confusing. As a result, a number of test cases were instituted, after a series of conferences between high governmental officials and mining operators. It was felt that a definite ruling should be made once and for all, in order that the mining men might continue their operations without fear of unjustifiable interference.

The decision in the Gold Creek case established the basic rights of locations of mining claims to the full possession of their land, subject, of course to compliance with existing rules and regulations. A certain amount of red tape may be expected to slow up the process of obtaining patents, but with the assurance that the Constitution provides for their issuance the mining industry as a whole has done much to promote confidence in future relations between the industry and the government.



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BAGUIO	MANILA	PARACALE			