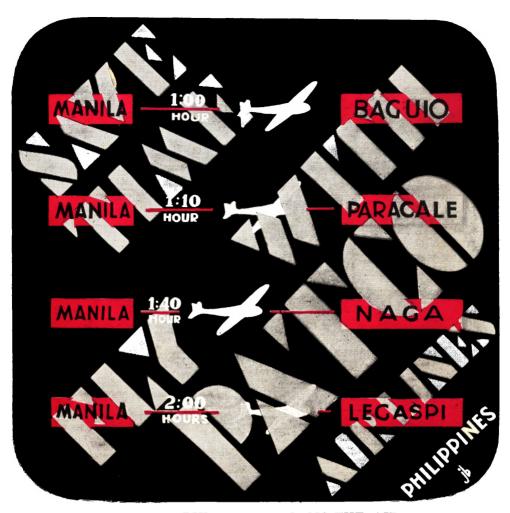
OF THE WHATPHIA Vol. II November 1937 No. 5 MANILA PHILIPPINES

WARSMAN MAGAZINE



SEE THE PHILIPPINES FROM THE AIR

leave Manila.. 6:30 a.m. arrive Baguio . 7:30 a.m. leave Baguio . 7:40 a.m. leave Manila . 6:45 a.m. daily arrive Paracale 8:00 a.m. leave Paracale. 8:05 a.m. Baguio service arrive Manila . 8:40 a.m. arrive Naga ... leave Naga ... 8:40 a.m. 8:45 a.m. Manila Tues. Paracale Thurs. leave Legaspi. 9:10 a.m. leave Legaspi 9:45 a.m. arrive Naga .. 10:10 a.m. leave Naga .. 10:15 a.m. one way, P25 round trip, P45 leave Manila . 9:00 a.m. arrive Paracale 10:15 a.m. leave Paracale 10:25 a.m. Mon. Wed. Paracale arrive Paracale 10:50 a.m. leave Paracale. 10:55 a.m. arrive Manila . 12 noon arrive Manila . 11:30 a.m.

Manila-Paracale one way P35, round trip P70 Manila-Naga, one way P50, round trip P100 Manila-Legaspi, one way P65, round trip P130 Paracale-Legaspi, one way P30, round trip P60 Paracale-Naga, one way P15, round trip P30 Naga-Legaspi, one way P15, round trip P30

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J. H. MARSMAN, President

November 1937

MARSMAN MAGAZIN'E

Vol. II No. 5

MONTHLY PRODUCTION AGAIN INCREASES

Itogon and United Paracale again set new monthly high production figures in October, the third and fifth consecutive months for each respectively that this feat has been accomplished.

Total output from the four gold lode producers of the Marsman interests amounted to \$\mathbb{P}804,959.91\$, from 49,026 tons treated. Value of the month's work showed a substantial gain over the September figure while the tonnage treated in the plants was about the same.

ITOGON MINING COMPANY

For the third consecutive month an all-time gold production was made at Itogon during October, when ₱357,754.-39 was extracted from 29,425 tons milled. The slight decrease in tonnage was caused by the necessity of repairs on the gyratory crusher which was out of the crushing line for several days. In addition, the replacing of the sheave wheels on the main head frame interrupted hoisting operations for half a day. Increased mill head values, however, compensated for the lower tonnage, and resulted in the new record.

Development footage totalled 3,431 feet, of which 2,153 feet were capital and 1,278 feet operating; of the capital development 1,239 feet were in ore, as was 1,110 feet of the operating development.

Work has been started on the eastern extension of the Sesame vein in the Idol claim at the Zero level elevation. The operations of the 4-machine drill carriage and Butler loader in the 875 level drain tunnel have resulted in a satisfactory increase in footage advance.

Mill operations during October were normal and satisfactory. Two ball mills were relined; repairs on the Sheridan grizzly were completed, and the new ore feeder chute is in use. Extraction improved to 88% but the overall tailings are still a little high owing to experiments now being made in connection with fine grinding.

The old sheave wheels from the main headframe are being installed in the Sesame shaft headrame. The 500 aerial tram is now in use, while three new 23,000-volt transformers have been installed and the hydro No. 3 power line repaired with heavier wire.

The second new bunkhouse has been completed.

Mining and milling costs are satisfactorily low, and capital investment charges for the month have been decreased considerably.

E. W. Lasher has recently joined the staff as mine shift boss.

SUYOC CONSOLIDATED MINING COMPANY

Suyoc Consolidated treated 6,389 tons of ore in October, from which \$\mathbb{P}128,010.07\$ was recovered. Capital development amounted to 827 feet, and operating development was 719 feet.

Mine operations during October proceeded without serious interruption, although early in the month a breakdown in the ball mill resulted in low tonnage for several days. The grade of ore mined during the month was slightly lower than that of September, but total production is normal.

Development work on the 2000 level progressed very satisfactorily, good footage being obtained in the 2001

(Please turn to page 2)

counterdrive and in the 22 crosscut east to the vein structures. Several parallel quartz features have already been cut, and although it is too early to predict the final outcome of development on this level, work to tate indicates that the vein formations extend to the 2000 level.

On the 1800 level development of the 102 vein indicates a wider width of ore than on other levels. This improvement is distinctly encouraging. Development work on the 1600, 1500, and 1400 level in the northern part of the mine continues to be encouraging. Although vein formations developed in this area of the mine are narrow, the values are fairly good.

Milling operations were interrupted during the first part of the month because of a breakdown in No. 1 ball mill. The drop in tonnage which resulted was made up during the latter part of the month so that the final tonnage was normal. No difficulties were experienced during the month with respect to milling operations or extraction.

During the month school facilities were made available for staff children. At present there are 9 children of school age at Suyoc and at Palidan Suyoc.

UNITED PARACALE MINING COMPANY

Froduction at United Paracale for October was \$\mathbb{P}200,081.70\$, from 7,962 tons treated. Head values average \$\mathbb{P}25.34\$ per ton, with a recovered value of \$\mathbb{P}22.52\$, giving an extraction of 89.4%.

Of the total output, \$\mathbb{P}\$2,683.80 resulted from the treatment of 142 tons of ore from the Rocky Mt. Fraction of Northern Mining & Devel. Co.

This figure gave the company a new monthly record for the fifth consecutive month.

Total development footage was 1,486 feet, of which 993 feet were in capital and 493 feet in operating development.

The assembly of Allen Diesel No. 7 was completed, and after several satisfactory trial runs, the engine was put into regular operation.

The No. 2 Bolinder compressor at Longos was completely overhauled, after which the Hollman portable compressor was overhauled and moved to the Kalaw No. 4 tunnel where it is now in

operation.

Construction of the new landing wharf and of the new bridge across the Paracale River was started the first of the month, and both jobs are now nearing completion.

SAN MAURICIO MINING COMPANY

During October the plant treated 5.250 tons of ore from which ₱119.113.-75 was extraction, the average extraction being 91%. Average mill heads were \$24.49 per ton while the tailings average ₱2.11 a ton. Production was curtailed somewhat as a result of a severe rain storm which hit the district on October 12, and continued through the 13th, and 14th. During this story 36 inches of rain fell, and the heavy flow of water from the surface shut the mines down for 2-1/2 days. Extensive shaft repairs hindered hoisting on October 6 and 7. Pumps have been installed on the 200 level that will handle 2400 gallons per minute.

Development work at the San Mauricio, Santa Monica, and Santa Ana mines amounted to 1,307 feet, of which 386 feet was in ore and 921 feet in waste. The shaft station on the 500 level of the main shaft has been completed, with the station sets installed, and a cage is now being used in one compartment of the shaft.

Work has been started on the changing of hoisting from the San Mauricio shaft to the main shaft. Allen Diesel engine No. 4 is now in operation.

The Santa Ana shaft has reached a depth of 261 feet. A vein 9 feet wide was cut 233 feet below the collar.

Good results are being obtained on the Tacoma No. 1, Tacoma No. 2, and Tacoma No. 3 veins on the 200 level. These veins are narrow but of good grade.

UNION MINES. INC.

Good progress was made at Union Mines during October in trail cutting and in open cut work which is being conducted for the prospecting of this group. Several outcrop formations were uncovered during this work.

Doghole crosscuts will be started in the near future to investigate some of the outcrops which have been exposed.

A short inexpensive waterline has been installed for furnishing water to the camp.

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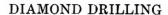
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The picture at the left show a crew of B. B. Philippine Drilling Company working at the Universal Mining Company's property in the Paracale-Mambulao district. This crew is under the supervision of Tommy Vaughn, setter, and R. S. Russell, T. Hopper, and T. Reyes, runners.

B. B. Philippine Drilling Company is an associate company of Boyle Brothers of Vancouver, Canada. It was formed in 1910, and has since expanded until today it has offices in various parts of the United States, Canada, and in Africa.



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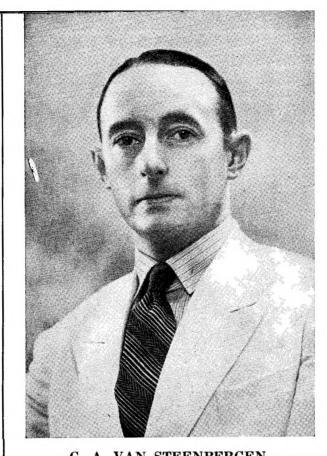
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G. A. VAN STEENBERGEN.

A tragic shock to the Marsman organization was the death of G. A. Van Steenbergen in an airplane accident at Palembang, Sumatra on October 6. Mr. Van Steenbergen, managing director of the N. V. Mijnbouw Technisch Bureau Marsman, was on his way to London to join Mr. Marsman at the time of the accident.

Mr. Van Steenbergen was born at Steenwijk, in Holland. After finishing his technical studies as a civil engineer, he entered government service in Holland, in which he remained for short time. Soon afterwards he joined the technical staff of the Netherlands Harbour Works Company. was sent in 1925 by that company to China, where he worked at Hongkong. Tientsin, and Hulatao. In 1935 he opened an office in Hongkong under his own name as consulting engineer.

In 1936 Mr. Van Steenbergen joined the staff of Marsman Investments Limited. He was sent to the Netherlands East Indies in October, 1936, to investigate the possibilities of mining in The preliminary investithat country. gations of Mr. Van Steenbergen resulted in the sending of a staff of engineers from Manila to the N. E. I., and in the conducting of extensive exploration work which is still going on.

After an agreement between the Algemeen Exploratie and Marsman Investments Limited had been signed in Amsterdam, the N. V. Mijnbouw Technisch Bureau Marsman was formed during the visit of Mr. Marsman to the N. E. I. some months ago. This company, of which Mr. Van Steenbergen was the managing director, is to represent the interests of Marsman Investments Limited in the N. E. I.

Mr. Van Steenbergen visited Manila several times, and accompanied Mr. Marsman on his return trip in June. He was well-liked by all who knew him, and the entire organization joins in expressing sincere sympathy to his widow and family.

GUMAOS GOLDFIELDS INC.

Development footage during October was 277 feet, while 106 feet of assessment work were completed. The average number of men employed during the month was 120, and conditions throughout the camp continued to be good.

The main drift south in tunnel No. 3 was advanced 85 feet along the vein, with an average width of 24 inches. The crosscut east was driven 9 feet in granite, while the crosscut west was driven 13 feet, cutting through the dike and into the granite.

In tunnel No. 4 crosscut east was advanced 57 feet through granite, and one stringer was cut. The crosscut east in tunnel No. 6 was advanced 73 feet in the granite, and two stringers were cut.

The shaft was sunk 40 feet, making a total depth of 101 feet. Shaft work was stopped for 5 days during the middle of the month because of pump trouble. Diamond drill hole No. 12 was advanced 324 feet, the hole being stopped at 653 feet. Sludge samples did not assay, but core samples at 128 to 131 feet below the collar gave good va-

MARSMAN HONGKONG CHINA LTD.

A third gcdown has been built by Concrete Products Limited, a subsidiary to Marsman Hongkong China, and put into service. This godown was ordered by the Wharf & Godo on Company of Hongkong, after the completion of the project described in the October Marsman Magazine. It is 440 feet long and 60 feet wide, built of 9-inch concrete block walls, and is 15 feet high with a 6-inch concrete floor, steel windows, sliding doors, and in general the same construction as that of the two first built. roof trusses were designed and built in such a manner that they can transmit stresses set up in the long-walls from a typhoon wind of 160 miles an hour.

This godown was put into use on the 19th day after receiving the order, which is a slightly better building speed, size for size, than for the first godowns built by the company.

Several other building jobs are in hand by Marsman Hongkong China.

lues.

The shaft headframe was completed and is in use.

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ACOJE MINING COMPANY

Tonnage mined during October was considerably higher than in past months, and a total of 4,778 tons of ore were delivered to the pier. It is planned that by November 6,000 tons of ore a month will be mined and delivered to the pier. This increased program has been started in order to take advantage of favorable weather conditions during the coming dry season.

No shipments of ore were made to the United States during October, but it is expected that some 6,000 tons will be shipped in November.

Mining operations during the month were carried on at the No. 1 and No. 2 lenses. The new lower bench on No. 2 lens indicates that the depth of this lens is somewhat greater than originally estimated.

Construction and surfacing of the road from No. 1 lens to No. 4 lens was pushed during October, and the road was expected to be ready for use by the first of November. Preparatory stripping operations and construction of the loading platform at No. 4 lens is well under way, and mining of this lens will probably be started around the middle of November.

The pier ore bins are practically completed, with the exception of a few minor details, and on October 31 ore stored at the pier was between 9,000 and 10,000 tons.

A rock crusher unit for furnishing gravel for the road was put into operation during October, and is now furnishing a good grade of crushed limestone for top dressing purposes. The condition of the road has been improved materially during the past few weeks because of better weather conditions and because of the intensive surfacing and repair campaign which has been conducted.

Installation of the Diesel lighting unit and of shop machinery is well under way. The assay office and equipment are nearly ready for use.

PALIDAN SUYOC DEEP LEVEL TUNNEL COMPANY

The advance during October at Palidan Suyoc was 1,188 feet, and the face was in 7,094 feet from the portal on November 1. Operations were stopped on October 1, 2, and 3 because of the death of M. H. Walser, one of the staff members.

Formations cut during the month consisted of gyp andesite and monzonite porphyry. No vein formations of consequence were cut. Both of the formations cut showed considerable faulting and movement.

Very little water was encountered during the month, but the nature of the ground made considerable timbering necessary.

It is expected that sometime during November the tunnel will pass into the property of Suyoc Consolidated.

PARACALE NATIONAL GOLD MINING COMPANY

During October sinking operations were resumed in the shaft upon the completion of the compressor installation. One sponge pump is sufficient at the present to keep the shaft clear of water. Heavy jackhammers are in operation for drilling, and hoisting is performed by a tugger air host. The shaft has now reached a depth of 85 feet.

The headframe is now in use, compressor units are operating satisfactorily, and the electric light plant has been installed and is ready for operation. The road has been completely ballasted, and a garage accommodating three automobiles has been finished. A small bodega for the storage of gasoline and oils was constructed and is in use. All necessary supplies are on hand, and all equipment is in operation.

Work is being concentrated on shaft sinking, and all operations are proceeding normally.

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SAN MAURICIO MINING COMPANY

By H. L. BARR

The following paper was read at a recent meeting of the Paracale Section of the Philippine Geological Section by Mr. Barr, general superintendent of San Mauricio

ANCIENT HISTORY

Knowledge of the oresence of gold in the Philippines undoubtedly started with the first visits of the Javanese and Chinese to the Islands.

The Javanese were probably the first visitors and, being a warlike people, landed and took possession. During their stay they undoubtedly did, or forced the natives to do, considerable placer mining. There are archaeological traces of their occupation in many parts of the Islands.

The Chinese came as traders and I doubt the probability of their ever having done any mining either lode or placer. It is a trait of the Chinese that they seldom if ever locate in any place that has not an established, recognized government. As all government in the dim ages of the Philippines was without doubt only a government of might, I think the Chinese did their trading off shore.

To substantiate the statements of the early production of gold on the islands there are Chinese writings as far back as the third century which state that gold was the chief product of Luzon. It is also an established-fact that long before Magellan's time the Filipinos used gold as a medium of exchange with the Chinese. A large portion of this gold came from the Paracale-Mambulao district.

EARLY MODERN HISTORY

The first discovery of gold by Occidentals in the Paracale-Mambulao District was by Don Juan Salcedo in 1572.

Since Salcedo's time the region has experienced several periods of intense activity, one of the greatest being in 1609 when a total production of \$\mathbb{P}400,-000\$ was reported. As the Spanish Crown exacted a royalty of 20 per cent, the production was, without doubt, many times the figure reported as such a royalty was certain to be evaded.

Most of the placer gold came, I think, from the Paracale section as the streams in Mambulao show but little evidence of placering and there is but very little "coarse" gold in the district. There is, however, great evidence of extensive lode mining as rub rocks can be found in all parts of the mining area.

Most of the early modern lode mining was done in the latter part of the eighteenth and early part of the nineteenth centuries and was confined largely to two veins, the Veta Real (now San Mauricio) and the Turayog vein (now Santa Ana).

The San Mauricio workings were then known as Doña Panay and the name still is used for this location. The old workings are located about a kilometer north of the town of Mambulao on Calogcog Creek. They have a lateral extent on the surface of about 600 feet and reach a maximum depth of approximately 200 feet below the surface. This was probably the richest mine worked during the Spanish regime and was abandoned due to inability to handle the water encountered at depth. The normal flow of water is now about 300 gallons per minute.

The "Ancianos" were capable miners and left but little behind them in the places they worked. We have run into their workings in our stopes and while we have mined considerable ore from this section of the mine we can assure you that they got the heart of it. The ore mined by them carried about 50 per cent of its values in free gold which was easily extracted as grinding was quite simple. The profits must have been enormous as "scabs" and very small pillars of ore left behind were fabulously rich. Excessive water eventually shut them down and in 1845 Don Isidro Sainz de Baranda promoted the famous "Ancla de Oro" Company which was organized to drive a sea level drainage adit that would give them access to the vein at about 60 feet below ground water level. Señor de Baranda's appeal for funds would compare quite favorably with the modern promoter's ballyhoo, but the mining facilities at hand in the Islands in those days were not sufficient to complete a 3000 foot adit through very bad ground. It was driven about

Dodge Copper Company at Pilares de Nacozari, Sonora, at a 3000-ton plant where large scale operation methods were introduced. Returning to the United States, he joined in 1928 the staff of the Walker Mining Co., operating a 1500-ton gold-copper plant in Plumas County, California. Aside from every phase of mining engineering, he had in this position the opportunity to study the analyses of costs and such special phases of engineering as construction and operation of a long aerial tramway, logging and sawmill practice, impounding of tailings, and recovery of pillars with the aid of diamond drills.

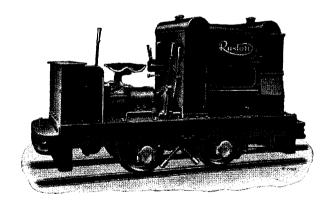
Mr. Atkinson resigned from this position in December 1930 to come to the Philippines, where he joined the staff of Benguet Consolidated. With this firm he held positions as shift boss, division foreman, safety engineer, and acting mine superintendent. He joined the Marsman organization in October, 1933 as mine superintendent at Itogon. In April, 1934 he was appointed super-

intendent of United Paracale, in charge of development work on this first lode property of importance in the then newly-revived Paracale-Mambulao district

He was made general superintendent of the company later, and under his supervision the property was brought to the producing stage. He kept in close touch with developments at other Marsman properties in the district, and in August, 1936 was promoted to division engineer for the Southern Division of Marsman and Company. When Marsman interests began expanding abroad, Mr. Atkinson was one of the first engineers to be sent to the Dutch East Indies, and he has been there since January of this year engaged in examination work.

Mr. Atkinson has travelled extensively, and speaks several languages fluently. He was instructor in saber and foil fencing while at the University of California, and was a crack pistol and rifle shot while in the army. He is a bachelor.

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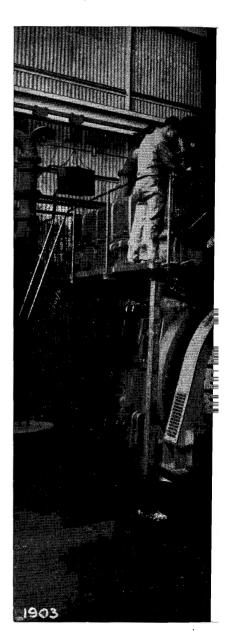
The Ruston loco is used on numerous jobs in all parts of the world. Low operating costs, long life and low consumption of cheap fuel are guaranteed and maintained in service.

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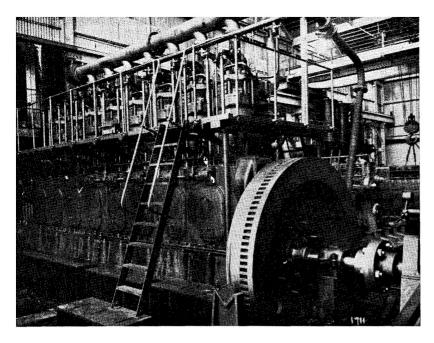


Upon an unceasing and the continued operation of an for crushers, ball mills, flot pressors for drilling, for hois constantly.



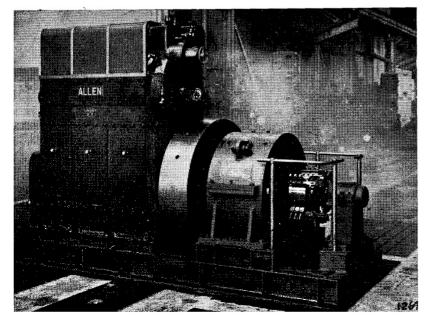
Bottom left, is a small dustrial needs. It is a 6! Diesel at the bottom right unit used for driving a grav suction dredge.

An engineer from the has been in the Philippines: installation of Allen units for various concerns.



Practically all of the power used by the companies under Marsman management is generated by engines constructed by W. H. Allen, Sons, & Co. Ltd., of Bedford, England, for which Marsman Trading Company is agent in the Philippines.

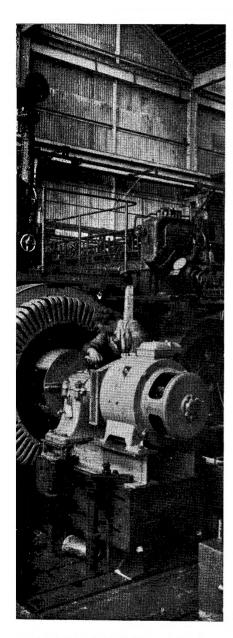
Seventeen Diesel units sucl that shown in the middle of these pages wm soon be in use in the Philippines: 3 at Itogon, 5 at San Mauricio, 6 at United Paracale, and 3 at Suyoc. Of these all but two are already installed. These engines combined would generate 8,600 horsepower.



ER

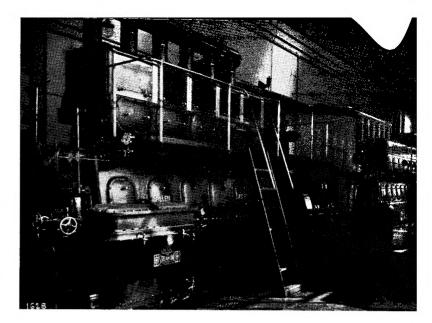
A Mining Operation

nomical flow of power depends rge mining enterprise. Power on machines; power for com-; for blowers—must be on tap



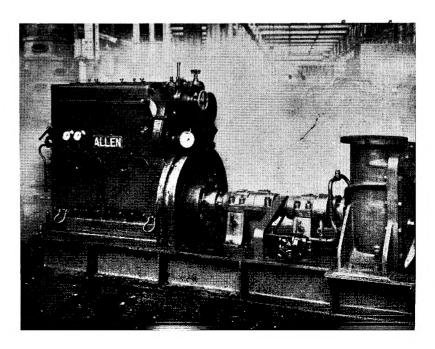
y unit, for supplying small in-100 horsepower unit. The 60 horsepower, 800 revolution mp for a placer operation or a

works, Mr. E. K. Robertson, out two years, supervising the acting as technical consultant



This unit is the 6-cylinder type. It runs at 360 revolutions per minute. In operation it has been found to be extremely economical, and is particularly suited for mining use.

Allen engines are not only used in mining plants, but to supply every demand. The engine at the upper left, of 1,000 horsepower shown under test is used in large industrial plants, such as wool mills. The picture in the upper right was taken in a water works in England, and shows a 600 horsepower Diesel for furnishing electric power for driving pumps.



50 meters at which point several men were supposedly killed by caving ground and the work was stopped. The portal of this adit is built of heavy masonry of the true Spanish type and stands to this day.

The Turayog workings (now Santa Ana) are located about 4 kilometers north of Mambulao on the headwaters of the Bulalacao River. They are quite extensive and indicate that a substantial tonnage must have been taken out at some early date. According to legend the mine was worked by Spanish priests in the middle of the nineteenth century. There are no indications that the workings ever attained any great depth.

The lure of the gold of the region attracted the Moro and Malay pirates in considerable numbers. These roving bandits would descend periodically on the place and relieve the community of all gold on hand. The Spanish crown finally built a small fort on a hill with a commanding view of the bay. It was garrisoned with Spanish soldiers and equipped with cannons. This, according to tradition, stopped the pirates. This fort is still standing.

MODERN HISTORY

In 1893, a British organization, started operations in Camarines Norte. A large amount of machinery was installed and everything was well under way when the insurrection of 1896 broke out. The British engineers in charge sensibly left the country and the accomplishments of 3 years work went to ruin.

No further work was done in the district until in 1907 when an American company was formed to work the San Mauricio property. Considerable development work was done and a 100-ton stamp mill was built and put into operation. Extraction of values depended on plate amalgamation and table concentration and as only about 40 per cent of the values could be recovered the plant was shut down after 6 months of desultory efforts. The causes given for the shut down were, insufficient fuel for the boiler, insufficient water for the mill and too much water in the mine. A total of \$\frac{1}{2}34,000\$ were produced.

In 1918 a company was formed to finish the "Ancla de Oro" drainage adit. After considerable expense the work

(Please turn to page 16)

Marsman and Company, Inc.

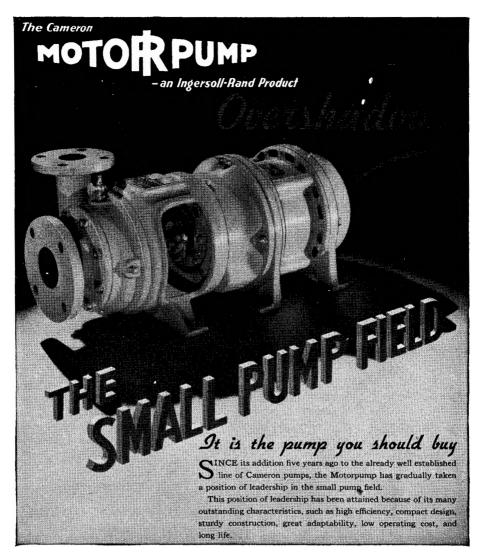
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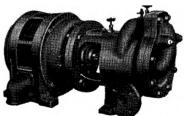




Stage Motorpumps ranging from 1/4 to 40 horsepower with capacity from 5 to 1000 g.p.m. against heads up to 240'.

Fractional horsepower units in sizes ranging from 1/4 to 5 horsepower with capacity up to 60 g.p.m. against heads up to 140'. Fractional Horsepower

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was completed and the mine was unwatered above sea level. Sampling results at the time were not sufficiently encouraging to continue work and the venture was dropped.

In 1933 the present San Mauricio Mining Company was formed and in February 1934 work was started on opening up the Ancla de Oro drainage adit. General geological reconnaissance work was carried on and several prospecting parties were put in the field. The San Mauricio, Imbong-Imbong, Santa Monica, Kansas, Brooklyn, Tacoma and Santa Ana veins were located as a result of this survey and development work was started on them. Enough work was done on each vein to determine its size and mineralization. The preliminary work was then stopped and all development centered at Veta Real or San Mauricio.

The old 100 level adit was opened up and a drive was started to connect to the old shaft which was reached in December 1934. The shaft was repaired and we found the 200 level open in all parts. All workings were sampled and results were found to check the 1918 sampling. Intensive development was started and sufficient ore was developed by August 1935 to warrant the erection of a treatment plant. Construction work started on October 1, 1935 and the mill was put into operation on March 10, 1936. It has been in continuous operation since that date and during the first year of operation the property produced approximately \(\frac{P}{2}\),260,000.

GEOLOGY

The history of a mine is also closely associated with its geological background and a mine like people must have background to amount to much.

The San Mauricio Mine, as you all know, is located at the western end of the semi-elliptical body of granite gneiss which, seemingly contains most of the ore bearing veins of Camarines Norte. This body of granite gneiss, originally a granite, was intruded into a peridotite, or pyroenite, which constituted the original ground mass of the district.

(To be Continued)

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MARSMAN AND COMPANY, INC.

Producing Mines

Name	Location	$Type \ Property$	$Flant \\ Capacity$	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	Gold Lode Gold Lode Gold Lode	1,000 tons 350 " 350 "	Warren Gilkison L. M. Robinson R. H. Canon
San Mauricio Coco Grove Hongkong Wolfram Project Acoje Mining Company	Manila 15 km N. of Paracale Paracale Kowloon, Hongkong 14 km. E. Barrio Luca		300 "	H. L. Barr F. A. Nowacki J. Gifford Hull
	Sta. Cruz, Zambales Properties under	Chromite Lode Development		C. G. Scott
Name	Location		Type	In Charge

Gumaos Goldfields, Inc.
Mindanao Mining Company
Palidan-Suyoc Deep Level
Tunnel Company
Paracale National Gold Mining Co.

Camarines, Norte
Zamboanga, Zamboanga

Suyoc District, N. of Baguio
Camarines Norte

Gold Lode
Gold Placer

Drain Tunnel
Gold Lode
Gold Lode
O. A. Wilson

FORSTER-HUNTER

Miss Joan Forster, of Melbourne, Australia, became the bride of John Hunter, assistant treasurer of the Marsman organization, on Saturday, October 23, at a quiet wedding held at the Cathedral of St. Mary and St. John in Manila. Attendants were Mrs. Keith Hubbard and Alexander Hunter, while a few close friends of the couple were present. A reception was held at 3996 Taft Avenue after the ceremony, and the couple then went to Baguio for their honeymoon. They now make their home at 99 San Juan St., Pasay.

DOORNBOSCH LEAVES

Hendrik Doornbosch, assistant to Mr. R. K. Robertson, representative of W. H. Allen & Sons in the Philippines, has gone to England for two years training in the Allen plant at Bedford.

BURGESS BABY

A daughter was born to Mr. and Mrs. Frank Burgess on Sunday, October 17, in Toronto, Canada. Mrs. Burgess is the niece of Mrs. Marsman; she will return to Manila with her baby early next year. Mr. Burgess is assistant to Mr. Wing and to Mr. Dankwerth in the Manila office.

PATCO Completes 4 Years Regular Service to Baguio

Four years of continuous daily scheduled operation between Manila and Baguio were successfully completed by the Philippine Aerial Taxi Company on Sunday, September 19, with a rating of 98-1/2% efficiency. Year-round daily flights were started September 2, 1933, and of the 1,461 scheduled mail trips since that time only 19, or less than 1-1/2% had to be cancelled.



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Main frame is cast in one piece, no bolts or nuts to work loose. Jaws are reversible, doubling their service. Size of grind is easily adjustable. Crusher is so easy to clean there's no danger of salting. Motor is pivoted to frame, holding V-belt drive to correct tension always.

Made in two sizes; flat or V-belt drive; with or without motor.

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Denver, Colo. U.S.A.

THE DENYER FIRE CLAY COMPANY

PFC

Name

Gilkison, Warren Dismant, Carl I. Peregrine, William D. Alexander, Paul Biason, Daisy M. Biason, Perfecto (Dr.) Carlile, Norman A H. Corbin, John E. Eilinger, Charles Evans, A. M. Fickes, Lloyd S. Freeland, Lloyd D Griffith, Harvey K. Horton, Louis W. Icazbalceta, J. A. King, F. H. Lasher, Erwyn W. Lewis, P. A. Lintner, Scott McLaughlin, Earl E. Muelling, K. E. Edw. Myers, Charles F. Peek, Robert Logan Pearson, W. J. Pratt, Milton F. Rice, C. S.

Rose, Frank, Jr. Scotty, Joe Selk, E. F. Velarde, Manuel Wagor, Eugene Wynne, John Zagar, A. J.

ITOGON MINING COMPANY Staff List

Position

General Superintendent
Mine Superintendent
Mill Superintendent
Mine Shift Boss
Resident Nurse
Resident Physician
Mine Shift Boss

Assayer

Mine Shift Boss

Asst. Mine Supt. (Taka Div.)

Mine Shift Boss

Mine Mechanic & Electrician

Engineer

Mill Shift Boss Mine Shift Boss

Engineer

Tunnel Shift Boss

Geologist

Mine Shift Boss Mill Shift Boss

Power & Elec. Supt.

Asst. Mine Supt. (Sesame Div.)

Mill Shift Boss Tunnel Foreman Mine Shift Boss

Mill Shift Boss (loaned to

Demonstration)
Mine Shift Boss

Asst. Mill Superintendent

Mine Accountant Mechanical Supt. Construction Supt. Tunnel Shift Boss Night Foreman Joined Company

April 15, 1936 November 16, 1935 May 24, 1937 August 25, 1937

January 25, 1934 January 23, 1934

March 23, 1937

March 4, 1937 December 5, 1935

October 2, 1935 January 12, 1937

May 25, 1937 May 25, 1937

December 25, 1936

September 13, 1937 August , 1936 October 1, 1937

May 17, 1937 January 12, 1937

January 12, 1937 December 1, 1935

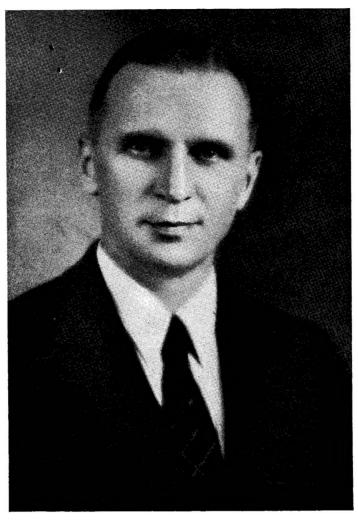
February 10, 1936 February 10, 1936

October 3, 1937 , January 19, 1937

March 26, 1937

May , 1937 February 8, 1935 December 28, 1936 December 29, 1924 July 14, 1932 September 16, 1937 October 29, 1936

LET'S GET ACQUAINTED



JAMES E. ATKINSON

Outstanding among the younger mining engineers of the Marsman organization is James E. Atkinson, at present engaged in examination work in the Netherlands East Indies. A varied and thorough education, supplemented by practical experience in all branches of mining and of construction work makes Mr. Atkinson particularly valuable in this type of work.

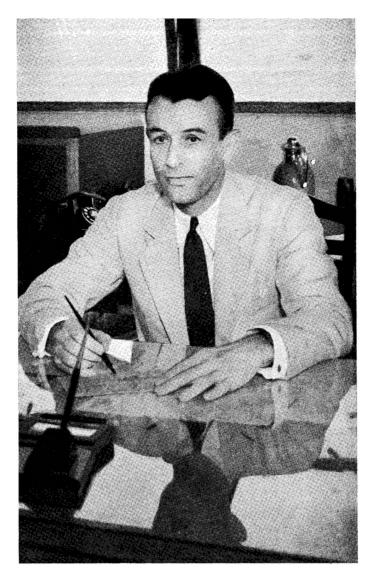
Mr. Atkinson's home is in Berkeley, California. His early training and education included 10 years in a continental classical gymnasium and three semesters of law school. His education was interrupted by a period of military service during the World War with the

Intelligence Department of the British Military Mission to Siberia. After his war service, Mr. Atkinson went to Canada, and thence to the United States.

From 1921 to 1926 he studied mining and metallurgy at the University of California, during which time he worked intermittently in a number of mines and tunnels in California as mucker, miner, timberman, shift boss, shaft foreman, and mine foreman.

His first job after school was surveying at the Calaveras Copper Co., where he was soon promoted to mine engineer. From this job he went to Mexico as mine engineer for the Phelps

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GEORGE H. EVANS

In an organization as large as the Marsman interests, the position of purchasing agent is one of great responsibility. Thousands of pesos must be spend for machinery, equipment, and supplies of all sorts each month, to insure uninterrupted operation at each of the mining projects all over the Philippines and elsewhere.

George H. Evans, who capably holds this position, has had wide experience in varied allied lines which fits him unusually well for the job. A native of San Francisco, Mr. Evans had his early education in England. He came to the United States in 1913, and during the next five years went to school in Chicago, Buffalo, and Detroit.

His first job was with a steel mill in Detroit later going into the automobile business in Memphis, Tenn., where he stayed for some 7 years. He joined the Simonds Saw and Steel Company and the P. B. Yates Machinery Co. as Far Eastern representative in 1925, and made a trip through China, Japan and the Philippines in that capacity. Returning to the United States, he travelled through Russia, Poland, Germany, France, and England for these companies.

Mr. Evans came back to Manila in 1928 to join the hardware department of the Pacific Commercial Company. He remained in this capacity until November, 1935, when he joined Marsman and Company as purchasing agent.

Mr. Evans is married, and has one son.

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MARSMAN AND COMPANY, INC.

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THE MARSMAN MAGAZINE for November, 1937

EDITORIAL

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The securities and exchange commission is doing excellent work in protecting the public against unscrupulous mining promoters; its recent expose of a most flagrant case of phoney promotion is evidence of that. In this work the commission will receive the heartiest coperation of every legitimate mining company, for those who are engaged in developing the mineral resources of the Philippines are more than anxious that the dishonest parasites who have attached themselves to the industry be eliminated.

There is a danger, however, that the commission, in its zeal to protect both the government and the public, may unwittingly hinder the progress of the legitimate operators. There is no intent, of course, on the part of the commission to interfere with the mining operators who are producing some \$\mathbb{P}4,500,000\$ in gold every month and who are adding immeasurably to the wealth of the country.

An investigation has been started recently into mine management contracts. The object of this investigation has been to determine whether or not such contracts were legal. It is the contention of the commission that a company formed for the purpose of working a definite group of claims should not be allowed, after proving the claims worth
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THE MARSMAN MAGAZINE

Published each month for Marsman & Company, Inc., Marman Building, Port Area, Manila, Philippines. P. O. Box 297

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.

Reproduction of materials published in The Marsman Magazine is welcomed. Cuts used may be borrowed, or matrices supplied, upon application to the editor.

SUBSCRIPTION PRICE, P5 A YEAR.

RALPH KEELER, Editor and Business Manager

(Continued from page 23) **EDITORIAL**

less, to branch out into the mine management and operating business. The experiences of the past few years have shown that this is a reasonable premise; few companies organized for working a mine have the organization, the financing, or anything else to qualify them for mine management or opera-

The companies formed for the express purpose of engaging in mine management and operation, however, have a different status. Such companies, if properly handled, have competent engineering staffs, suitable equipment, and adequate financing.

Mining is an expensive undertaking. It takes much money and time to explore a mining property, and to prospect and develop it if it is found to be It takes even more to mineralized. bring it to the producing stage. Further, sound management calls for in-

telligent business direction, and for good judgment in buying supplies, in handling labor, in marketing the product, and in dozens of other details.

Few mining companies can handle the mass of detail connected with successful mine management and operation, by themselves. Every phase of the industry, from the first prospecting to the final shipment of bullion, calls for the services of experts. If it were not for large operating companies, with skilled staffs, the mining industry of the world would never have been able to reach its present stage of develop-And so it is in the Philippines. The bulk of the gold produced today is the result of a number of organizations.

For the future welfare of the mining industry of the Philippines, and for the accompanying benefits which the Commonwealth will derive, the commission should not interfere with the legitimate operators. There could be no better way of killing the industry.

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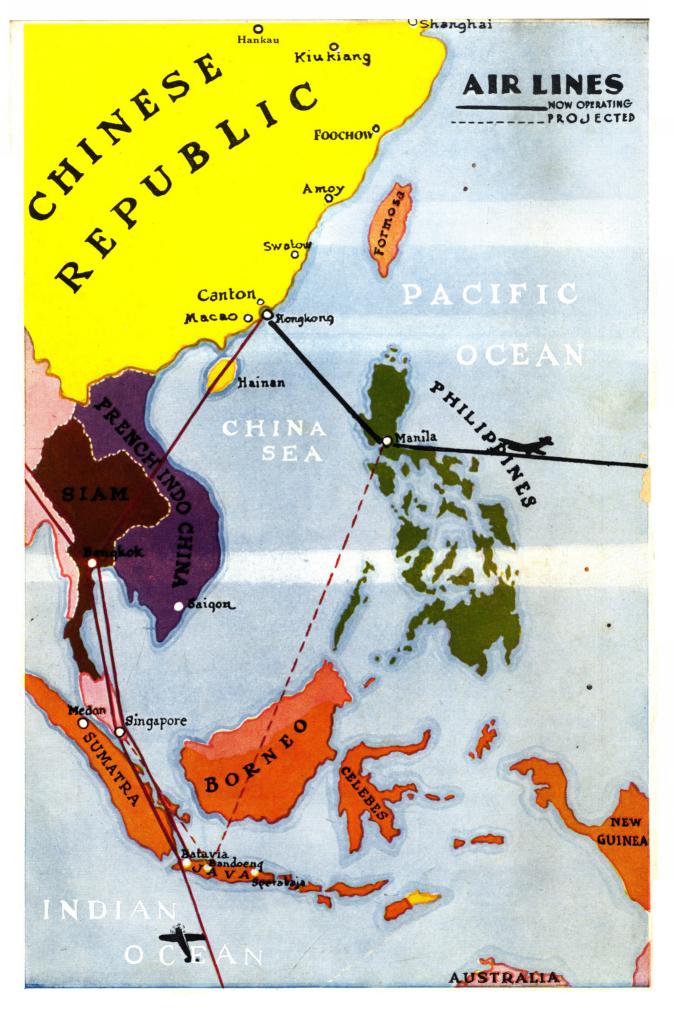
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