

Looking Back Over 1936

By Ralph Keeler

Steady and substantial growth has marked Philippine mining during the past year. This growth, measured in terms of gold production, was about 33-1/3 per cent; the 1936 output was ₱44,421,000 as compared to ₱32,911,353 for 1935. The number of gold-producing plants has been increased from 13 to 19; the monthly tonnage treated in mills has been upped from about 132,000 in December 1935 to about 215,000 for last month.

More important, perhaps, than gold production has been the declaration of dividends by 16 companies during the year, totalling nearly ₱20,000,000. During 1935 six mining companies paid dividends amounting to ₱12,528,589. Not all of the companies who declared dividends in 1936 were mining operating companies; two, Gold Shares and Syndicate Investments, were investment organizations, while one, Marsman Investments Limited, was the holding company of a mine-operating group.

Gold mining continued to be the leading branch of the industry, and will undoubtedly hold that position for many years to come. There is no reason to believe that any other phase of mining will even approach gold in importance or in value. This year will probably see the amount of gold produced increase to around ₱55,000,000.

Predicting gold production is pretty much guess-work, of course, but the expansion plans now being carried on, and the likelihood of several new plants coming into operation, makes the figure given above seem reasonable enough. The Chamber of Mines of the Philippines has predicted a gold output of ₱57,519,230 for 1937, and of ₱60,400,230 for 1938. These figures are based on estimates made by the companies themselves, and often represent what would be produced under ideal conditions. For example, the estimated production for 1936, as compiled by the Chamber of Mines was around ₱45,200,000—excluding East Mindanao and Big Wedge—or nearly ₱3,000,000 more than the actual output.

Although the base metal industry—and by that general term we include chromite, copper, manganese, iron, and all other metallic products is not likely to threaten the supremacy of gold in value to the Philippines, the increased interest in this phase of mining has been of great importance during 1936.

Chromite is by far the most important mineral product of the Philippines with the exception of gold. 1936 saw Benguet Consolidated bring the Floranrie deposits of high-grade ore into production, and develop the Masinloc deposits of low-grade to the stage where contracts were completed for 1937 deliveries. The Floranrie chromite is going to the Union Carbide Company of Pittsburgh, and about 100,000 tons of it will be shipped. Test work carried on in the United States has proven that the Masinloc ore is suitable for metallurgical uses. So far, announcement has been made by Benguet of one contract for a relatively small amount of this ore. There is no reason to believe that a market will be lacking. It is generally believed that negotiations are being carried on with the United States government for a sizeable part of this ore to be used as a war material. Since the United States lacks adequate supplies of chromite, which is one of the most im-

portant of the strategic minerals, it does seem reasonable that an effort will be made to insure an ample supply in case of war.

Japan has shown considerable interest in Philippine chromite as well as in Philippine iron. Several contracts for small amounts of chromite have been concluded here. The only exporter of iron ore, the Philippine Iron Mines, shipped more than 500,000 tons of high grade ore to Japanese ports last year; the 1937 output will probably be substantially more.

Copper and Manganese deposits are now being developed, and shipments will be made this year. Most important in the base metal industry is the fact that Japan needs all metals badly, and that the Philippines is the logical place for her to buy them. The European markets will absorb part of the Philippine output, but freight charges add so much to costs that it is difficult for local companies to compete abroad. There is obviously little or no market for copper, manganese, zinc, or lead in the United States, well supplied at home.

Amalgamated Minerals, recently-organized firm of ore buyers, is doing much to develop the base metals in the Philippines. The Montilla interests control several copper and manganese properties. The Marsman interests are worked on a number of properties which may be brought into production this year. Nielson and Company has ordered a mill for the Lepanto copper property north of Baguio, and production will be started in 1937 according to present plans.

Benguet Consolidated and its subsidiaries, Balatoc and Ipo Gold, accounted for about half of the total gold production. During the year Cal Horr was brought into production, and this plant, owned outright by Benguet, accounted for some ₱1,200,000 in bullion. The capacity of Benguet is being increased to 1,000 tons a day, so that 1937 will probably see a substantial increase in that plant's output. Of Benguet's outside activities, chromite mining, described above, was most important.

Marsman and Company had a most remarkable growth in 1936. It added two gold-producing operations, San Mauricio and Coco Grove, to its undertakings (Itogon, Suyoc Consolidated, and United Paracale being the other companies under Marsman management which are in the production stage). It acquired management contracts with a number of mining companies all over the Philippines, among them Acocje, Gold Pocket, Mindanao Mining, Mother Lode, Gumaos Goldfields, Southern Paracale, Valley Placer, Tinga, Filipinas, and Dayaka. It has ventured abroad, and now is exploring mining properties in China, Netherlands East Indies, and British Malaya.

Two projects recently started by the Marsman interests will be of great benefit to the industry as a whole—the Palidan-Suyoc drain tunnel and the Mambulao smelter. In order to explore Suyoc Consolidated at depth, a drain tunnel is now being driven a distance of some 9,000 feet. It will go under a number of new properties and will facilitate the development of these properties. It is more than likely that one or more mines will be opened up as a result of this tunnel, in addition to the value of the project to Suyoc Consolidated.

The new smelter will have a capacity of 50 tons a day, and

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will treat flotation concentrates from United Paracale and San Mauricio. In addition, custom smelting will be undertaken. Several of the properties in the Paracale-Mambulao district have ore containing copper; such ore can be treated in the new smelter.

The amount of gold produced by the Marsman companies was about twice as much in 1936 as for 1935; for 1937 it will be even higher. Four Marsman concerns declared their first dividends at the close of the year: San Mauricio, United Paracale, Marsman and Company, and Marsman Investments.

The Soriano interests concentrated their efforts on gold operations during 1936, with marked success. Antamok Goldfields was expanded until it now produces around P500,000 a month, thus becoming the third largest producer in the Philippines. Masbate Consolidated, with its 2,000-ton plant, handles more ore than does any other mining operation. I. X. L. and I. X. L.-Argos have been developed into high grade properties and offer great promise for 1937.

Antamok Goldfields doubled the amount it paid in dividends the figure being P2,062,500 for 1936 and P1,000,000 for 1935, and in addition declared a 100% stock dividend in November. I. X. L. closed the year with the announcement of a 20% dividend and the promise of a stock dividend early in 1937.

A number of gold properties are under development by Soriano engineers, in the Paracale and Masbate districts, and these may be brought to the producing stage this year.

Of the smaller operating organizations, Demonstration is outstanding. Production has been steadily increased, and dividends amounting to P200,000 were paid during the year. Benguet Exploration maintained its regular operations, and paid its first dividend, of 10%.

Baguio Gold has kept up its production, and at the end of 1936 was in the best financial position of its history. A dividend of 10%, the first since September, 1934, was declared in December, 1936 by Baguio Gold, and it is very likely that dividends will be paid regularly for some time.

The Atok Gold Mining Company brought Big Wedge, which it is operating on a profit-sharing basis, into production. A new flotation unit has been ordered for the plant which will increase production materially.

Salacot has been plugging along. Its monthly production has been low, and every effort is being made to increase the ore reserves. East Mindanao, in operation but a few months, seems to have a bright future.

Tambis Placer has recently announced plans for development of its lode properties. This company has been operating a dredge in Mindanao for several years; figures on 1936 production are not as yet available in Manila.

Of the properties now under development, it is likely that mills will be in operation some time in 1937 at the following: Lepanto and Paracale-Gumaua (Nielson contract); Dulong (Marsman contract); Mindanao Mother Lode (Engineering Equipment and Supply contract); Mineral Resources; Universal. Development results at these properties are reported to indicate ore bodies which will warrant mill construction. Whether or not such mills will be built, or whether, if built, they are justified, remains to be seen.

A 1500-ton plant for the treatment of tailings from plants in the Baguio district is now being built by the Twin Rivers Gold Company Inc. This plant is expected to be in operation by the middle of 1937, at least. Whether or not it will be successful, it is hard to say. Technical men differ in their opinions as to the project. Extracting gold from tailings is done on a commercial scale in many parts of the United States. Some engineers say it can't be done here because the values in the tailings, by the time they reach the plant, are so low that there will be no profit. Every one is watching the great interest in the progress of the project, and will continue to do so. If Twin Rivers succeeds in salvaging gold from Benguet, Balatoc, Antamok Goldfields, Itogon, Big Wedge, and Cal Horr tailings, and makes money on it, there will be several engineers with very red faces, and no little explaining to do.

Several new organizations were formed in 1936 for the purpose of managing and operating mining properties. Presumably encouraged by the success of the Benguet, Marsman, and Soriano organizations, most of the new engineering firms are operating along similar lines. An engineering staff is assembled, new properties are acquired on contract or option basis, and prospecting is carried on. When such prospecting justifies development work, the necessary equipment is supplied. When development justifies plant construction, the company undertakes this work. L. R. Nielson and Company has become a mine management firm, and has contracts on a number of promising properties in the Paracale and in the Baguio districts. The Engineering Equipment and Supply Company, which built several mills now in production, is working on properties in Mindanao and has a chromite property in Zambales. Developments, Inc., pioneers in geophysical mineral surveys in the Philippines, has made complete surveys for most of the mining organizations here and now has management contracts with several new companies. R. Y. Hanlon and Company is doing engineering work for many companies. Dr. A. D. Alvir, one of the most prominent of the Filipino engineers, has formed his own company and has a staff of several experienced American mining engineers. H. A. Wendt and Company is operating a number of properties in the Paracale district and elsewhere.

None of these companies has a mine in production as yet, but all are carrying out definite prospecting and development campaigns. Most of the engineers with these concerns are competent and honest, and their efforts will do much in 1937 to develop the mineral resources of the Islands.

All was not rosy throughout 1936, of course. The usual wild-cat promotions, false reports, dishonest and incompetent men which accompany all mining booms have been, and still are, present in Philippine mining. Of the 200 or more new mining companies which have been started, not more than a handful have even a chance of success. Many of these companies have no claims worthy of attention; some of them have claims which have been carefully examined and turned down. The new year will bring disillusionment and financial loss to many people who invested their money in some of these companies. It is unfortunate that so-called mining companies

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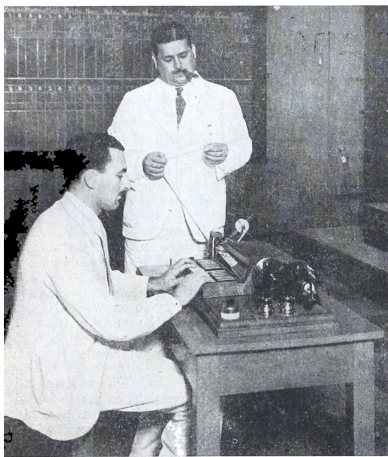
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Modernizing Manila's

being a description of the ticker



Mr. Eisenberg at the keyboard on the floor of the Manila Stock Exchange, with E. Palomo, executive secretary of the Exchange, an interested spectator.

The installation of a modern ticker system, similar to those in use in stock trading centers the world over, is nearly completed at the Manila Stock Exchange. An electric call board and telephone broadcast system has already been installed on the floor of this exchange, and these devices have added much to the efficiency and ease of trading.

Each of the members of the Manila Stock Exchange will soon have a ticker in his office. Transactions will be broadcast over the ticker system from the floor of the Exchange, and will be printed simultaneously in each member office.

In connection with the ticker system, a financial news service covering the New York, London, Shanghai and Hongkong markets, as well as other markets of local interest, will be carried daily. News of financial and political importance will be included, and flash news of events of political and financial importance will be transmitted as soon as received. The exchange has made special arrangements with the United Press and with Reuter's Limited, for this news service.

The technical supervision of the construction and of the operation of the ticker service has been in the hands of J. G. Eisenberg, specialist in communications work. Mr. Eisenberg is no stranger here. He installed the original KZRM plant and the central office equipment for trans-

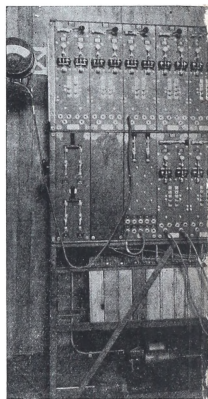
Pacific radio circuits. He has had more than 15 years' experience in communications engineering work, and was connected with various large concerns in the States among which are numbered the New York Quotations Company, the American Telephone and Telegraph Company, and the Radio Corporation of America.

It is likely that but few readers of the *Journal* are acquainted with the whys and wherefores of a ticker system. Let's let Mr. Eisenberg explain what happens between the time the broker sells your shares of American Beauty Gold Mines (at a profit, naturally) and the receiving of the news of the transaction in your office.

Quoting Mr. Eisenberg:

"The ticker is in reality a telegraphic device which, instead of operating a sounding instrument, operates a printing wheel carrying letters and figures. These letters and figures are impressed upon a moving tape and appear as a continuous record of the transmitted information. This type wheel is operated by impulses of electrical current, which vary in time duration according to the key which has been operated at the switchboard.

"Without going into the more complicated factors involved, it be stated simply that the tickers are synchronized with a control keyboard which is timed in conjunction with the type wheels of the ticker instruments.



The switchboard of the ticker supervised its installation.

Looking B

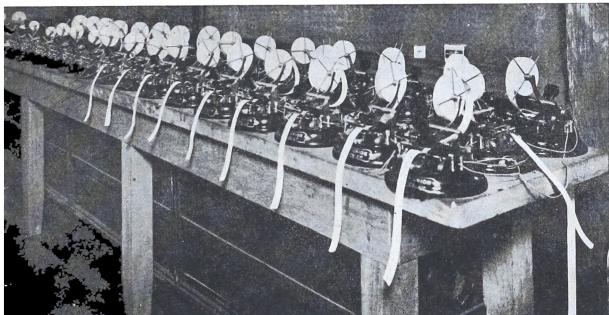
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were permitted to advertise in the Manila *chromite*", "ore bodies showing assays of five expressions used to fool the public.

One of the biggest swindles in mining history discovered that the Beal Gold and the Cabit had been made for months, mills recommendations spent in development, check reports made by tion simply did not have the ore. The eng. Hongkong by the authorities. Investigation: tempt to fix the blame. Every one connects as can be determined, no one seems to be tak matter. It is likely that by this time next year guilty will be enjoying their loot.

New mining legislation has been passed, a gold production is not excessive, the catch is subject to existing laws. By this the Assembly of gold should go up, the tax rates would t however, that the Assembly will tax the indu tied up in mining investments.

The creation of a Bureau of Mines was a win Abadilla President Quezon has an engineer handicapped considerably by a lack of funds government employ to engage in private pri Dr. H. Foster Bain as advisory engineer for should prove invaluable to the bureau head All in all, the Philippine mining industry is year; 1937 will be more so in every way.



The battery of tickers, lined up at the Manila Stock Exchange pending their installation in the offices of member brokers.

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Mining Stock Business

System of the Manila Stock Exchange

"The operation of this master timing device, arranged in a form not unlike a miniature piano keyboard and carrying letter and figure characters, controls a rotating synchronized drum around the periphery of which are located offset stops which are engaged when any of these keys are depressed. The position of this drum determines the time period of operation of a relay in the ticker instrument which moves the printing wheel into a position to print the character which corresponds to the keyboard selection. At the same time another relay automatically moves the printing mechanism against an inked wheel and impresses it upon the tape, which is then automatically moved ahead by an auxiliary part of the mechanism into the next printing position.

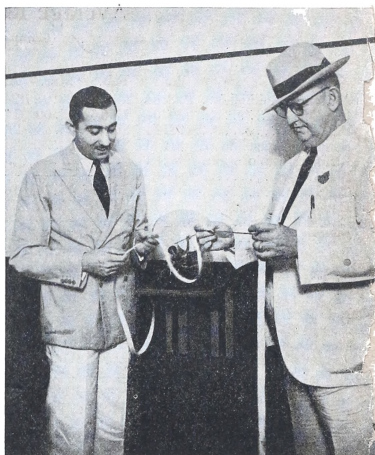
"The machinery for carrying out these operations, consisting of switchboards, relays, synchronized transmitters and the ticker instruments themselves, is quite complicated, but the operation of such a system simplifies the mechanics of brokerage reporting considerably.

"It is necessary to have these reports appear simultaneously at a considerable number of separate points, and to do so accurately and uniformly. This ticker system accomplishes without the errors inherent in the simple method of telephonic reporting. In other words, the ticker system is not dependent upon the human equation in operation except during one phase of its activity, the keyboard operation.

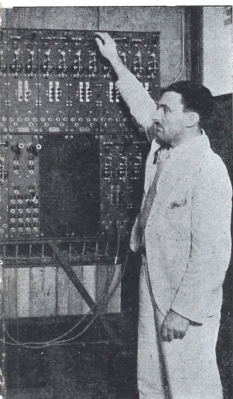
"The ticker keyboard operator transcribes his information directly from buyer and seller slips which are rushed to the central operating position from the floor of the Exchange as soon as they are completed. An auxiliary ticker instrument located alongside his transmitting keyboard gives the operator a visual record of his transcription and acts as a check against any mistakes he may make. Should such errors occur, a correction is placed upon the tape immediately.

"Since the type wheel lends itself to continuous printing as well as the symbolic printing necessary to the speeding up of reporting of brokerage operations, it is possible to utilize the system for carrying information other than the trading reports. During such periods as the stock market is inactive or not in trading session, the system is accordingly used to carry a financial news service covering other markets than the local ones, in which traders may be interested. The Manila Stock Exchange, through special arrangements with the United Press and Reuters Limited, have provided for such financial news services from New York, London, Paris, Shanghai, Hongkong, and other markets of interest locally. News of political and other import will also be carried by the ticker system."

Tickers will be installed in the offices of members of the Manila Stock Exchange immediately, and later, in the offices of mining companies and businessmen who are vitally interested in keeping in close touch with trading.



The first ticker was set up in the office of Enrique Santamaria, president of the Exchange. Here he is reading the first message to be transmitted over the newly-installed system. Walter S. Price, one of Manila's leading traders in mining stocks, is at the right.



System Mr. Eisberg, seen here.

Stock Over 1936

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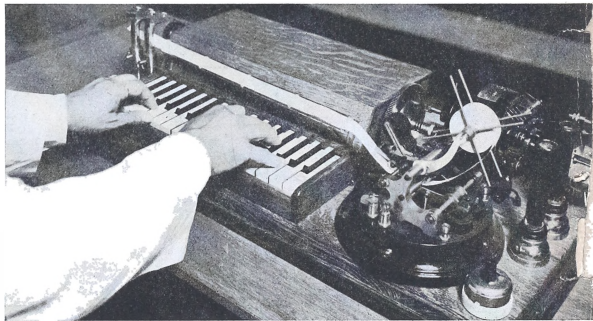
newspapers: "mountains of gold", "huge deposits of iron ore" and six hundred dollars a ton" are samples of the

discovery was uncovered in the Albay region, when it was found to be worthless. Although glowing reports were made for both companies, and thousands supposedly reliable engineers showed that the properties in question were brought back from the dead, they are presumed to be going on at the present in an attitude of with the region claims innocent, however. As far as the active interest in getting at the bottom of the matter the whole matter will have been dropped, and those

and is now in effect. While the increase in taxes on the taxation clause is that royalties are to be paid by can change the tax rate as it sees fit. If the price is doubtfully raised. Mining men do not believe, they try out of reason; there is too much Filipino money

to move on the part of the government, and in Quirino well qualified for his position. The new bureau is, however. Several of its engineers have already left the office where the pay is better. The engagement of the bureau is considered a wise move. His advice is

in an enviable position. 1936 was a record-breaking



The keyboard—heart of the ticker system. The operator transmits buying and selling transactions from the floor of the Exchange, and through the ticker system these transactions are recorded simultaneously in the offices of member brokers.