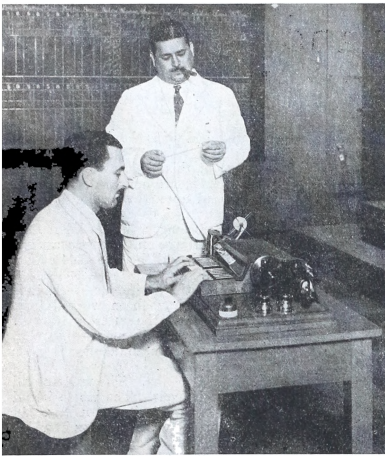


Modernizing Manila's

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.

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.

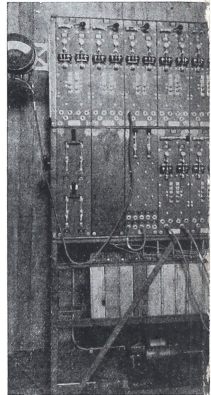
"Without going into the more complicated factors involved, it be stated simply that the tickers are synchronized with a control keyboard which is timed in conjunction with the type wheels of the ticker instruments.

The 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-



The switchboard of the ticker supervised its installation.

Looking B

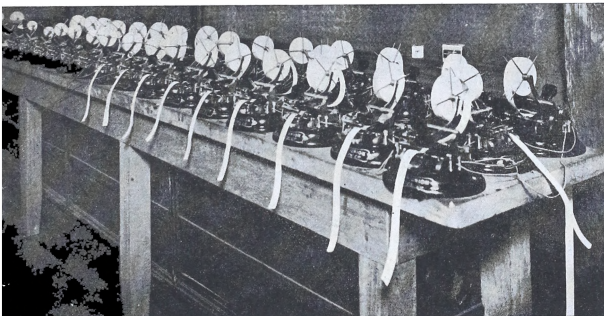
(Continued)

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.

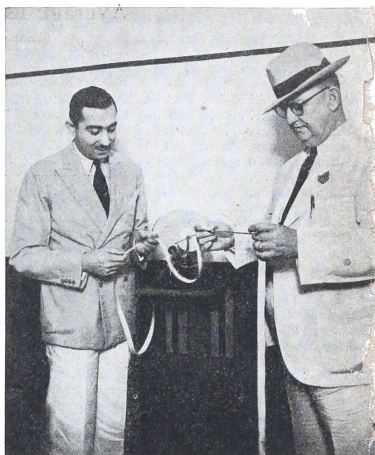
"The machinery for carrying out these operations, consisting of switchboards, relays, synchronized transmitters and the ticker instruments themselves, is quite complicated, but the operation of such a system simplifies the mechanics of brokerage reporting considerably.

"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.

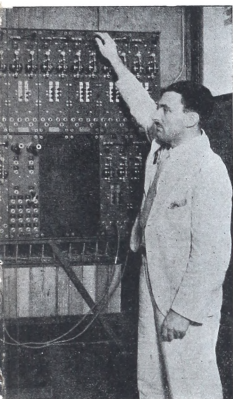
"The ticker keyboard operator transcribes his information directly from buyer and seller slips which are rushed to the central operating position from the floor of the Exchange as soon as they are completed. An auxiliary ticker instrument located alongside his transmitting keyboard gives the operator 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

(Continued from page 20)

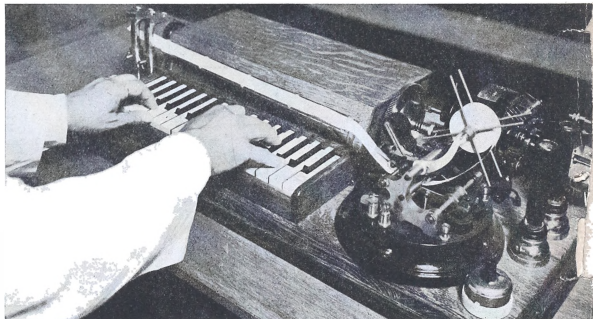
newspapers: "mountains of gold", "huge deposits of silver and six hundred dollars a ton" are samples of the

discovery was uncovered in the Albay region, when it was reported 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, the reports were brought back from the dead. It is presumed to be going on at the present in an attempt to win 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.