# Treasure Hunting in the Twentieth Century



OME two hundred and fifty years ago, Henry Morgan and his crew of free-booters sacked and burned Panama City. There are fairly well authenticated legends that buried their wealth in tun-

nels, cisterns and wells, which to-day are located among ruins covering hundreds of acres. Numerous attempts to locate the hidden treasures of Panama have been made, but beyond the recovery of a few pieces of plate and some ancient household utensils, they have proved unsuccess-

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MR. W. E. ELLIOTT, The possessor of a robust tener voice, was at one time a member of the popular Warblers' Male Voice Quartet. He has also appeared as a soloist on several occasions, his num-bers always being of a popular nature. Mr. Elliott has had considerable experience on various picture theatre circuits, and on the concert

platform.
-S. P. Andrew, photo.

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Recently, however, Lieutenant Wil-Mams, formerly a radio officer in the itish Navy, became interested in the recovery of the Panama treasure, and endeavoured to apply an ingenious adaptation of radio principals to aid him in his search. That his quest has met with at least a measure of success is evidenced by the gold plate and other relics already brought to light.

The apparatus used by Lieutenant initially for a totally different purpose, sunken off the coast of Ireland. namely, for the detection of submathe Allies was the menace of the Ger-, that Lieutenant Williams should become interested in the idea of detecting the presence of submarines by electrical or radio methods.

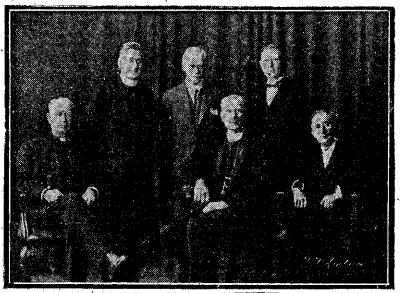
Underwater microphones.

## Radio Apparatus Successful where Others have Failed

acted like batteries and could be de- cess. tected by magnetometers or magnetic presence, approximate size, and approximate depth of the submerged metallic substances.

the inhabitants, forewarned, hydrophones were useless. By experi- beachcombers had all tried to locate ment it was demonstrated that metallic the hidden wealth of the ruined city, substances submerged in salt water but none had met with any great suc-

> Leaving his employment with the needles, which would indicate the salvage company, Williams proceeded to Panama, where by chance he secured a Government grant allowing him the exclusive right to search for By making a magnetic survey of a buried treasure, provided he would acbody of water in the vicinity of a spot cept three-quarters of the value of where a large metallic object was sup- whatever he unearthed. He then composed to be submerged, and by plotting menced operations, employing the apthe isodynamic lines, it was possible paratus he had evolved for salvage to discover variations from the normal purposes. For some reason or other, and plot the approximate location of this method proved unsatisfactory, and the submerged object. It is obvious he commenced experiments with a view that this method was too slow and to perfecting a more efficient equipexacting to be practical for war-time ment to aid him in his search. He use, but Lieutenant Williams became accordingly selected a clearing in the convinced of its usefulness for peace- jungle and proceeded to experiment



THE 2YA CHURCH SERVICES ADVISORY COMMITTEE.

Front row (left to right): Rev. T. R. Richards (Taranaki Street Methodist Church); Rev. C. V. Rooke, chairman (St. Thomas's, Wellington South, Church of England); Rev. F. E. Harry (Vivian Street Baptist Church). Back row: Rev. R. J. Howie (St. Andrew's Presbyterian Church); Mr. E. T. W. MacLaurin (Congregational Church); Pastor Carpenter (Uncle George), (Church of Christ).

-S. P. Andrew, photo.

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During his frequent voyages on the rines in war-time. During the World salvage ships, Lieutenant Williams, in the ruins, and though it proved quite War, the great problem confronting considering the various methods used satisfactory in locating large metal obto locate sunken ships, wondered why jects, it was not sensitive enough to man submarines. It was only natural these same methods would not apply satisfy the treasure-hunter. He thereto a search for minerals or metals fore proceeded to construct an ap-buried beneath the surface of the paratus which would embody the same earth. knew nothing of geology, but he had mitter and more sensitive receiver. As called read of the buried treasure of Panama a result he evolved the apparatus hydrophones, were available for detect- City, and determined to try and suc- which is in successful use to-day. ing the noise made by the propellers; ceed where others had failed. More but if the submarines were stationary than 250 years had elapsed since the lengths of zinc-coated iron pipe with ama in the tunnels connecting

time salvaging work and retired from with a galvanometer, a few dry cells the Royal Navy to take a position with and hollow copper rods, until he Williams was developed by him a company which was salvaging ships evolved a method of exploration which was sensitive and apparently sound.

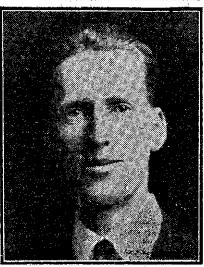
This method was given a trial near Being a seafaring man, be principle and yet have a stronger trans-

beneath the surface of the water the sack of the city. Soldiers, sailors, and copper wires soldered at the upper monasteries and churches. The discov-

ends, are driven into the ground to be explored. They are connected to a generator having a frequency cycles. The receiving cabinet is suspended from a tripod and the receiving coil is mounted on the tripod so that it can be swung in either a vertical or horizontal plane. Four audio-stage valves and two audio transformers are used. A 250,000 ohm modulator is employed to regulate the signal volume, and headphones are used for reception.

In exploring a certain area, the receiving coil is rotated until the minimum sound is heard in the 'phones. The intensity of the disturbance indicates roughly the amount of metalli-

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MR. VAL JONES. Is a popular young baritone, comes from a well-known Wellington musical family, one of his brothers being a leading baritone with J. C. Williamson, Ltd. This young artist can sing ballads of musical comedy numbers equally well, being especially good in his interpretation of Sanderson's and Herman Lohr's composi-

tions.
—S. P. Andrew, photo.

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ferous substance discovered, and its position is found by plotting equi-potential lines and comparing them with a plan of normal estimated equipotential lines.

This method of exploration has proved successful, and a great variety of treasure has been recovered. Gold and silver candlesticks, platers, incense pots, sanctuary lamps, necklaces, bracelets, and rings have been found in wells and cisterns. "Pieces of eight" were found in earthenware, with dirt, and had to be broken open and soaked in water in order to extract the coins. Pesonal effects such as keys, Toledo swords, and daggers were found mixed indiscriminately with copper kettles, bronze stirrups, irons. The most valuable finds were the statues and altar pieces buried by the priests, but the coins and other objects have a historical common

Lieutenant Williams still expects to which is in successful use to-day. find chests of gold ingots which were Two electrodes made of three-foot hidden by the Treasurer of Old Pan-