Surveys.—This work is now carried on mainly by the Survey Department under supervision and instructions from the Department, and a considerable amount of levelling and road location has been carried out. During the year a five weeks' malaga of Savai'i was made by the Officer in Charge, Public Works Department, and a surveyor from the Survey Department and all details of Native villages as set out in the Survey Report were obtained. This also included details of water-supplies (present and proposed), bathing-pools, bridges, roads, and other matters affecting the Department. Frequent short malagas to parts of Upolu have been made, and several matters dealt with. In the coming year the Engineer in Charge and Assistant Engineer will each make separate malagas of each island, and will thus be in constant touch with Native wants. An overseer for Savai'i has been appointed, and he is dealing with all Public Works matters there.

Sea-wall.—During the year contracts for the supply of stone were made and about 1,000 tons of stone delivered. Work was commenced at the Customs and 110 yards of wall constructed. Now that the stone is to hand it will be possible to complete the greater portion of the protection work at the eastern end of Apia in the coming year.

STORES DEPARTMENT.

This Department commenced operations on the 1st April, 1924, taking the place of the Supplies Purchase Office, the purpose being to amalgamate and concentrate all stores and to effect economy in the buying and distribution of same to the various Departments of the Administration and the Samoa Crown Estates.

Stock to the value of £4,629 9s. 7d. was taken over from the Public Works Department, and to the value of £13,795 15s. 4d. from the Crown Estates, making a total value of £18,426 4s. 11d.

Although purchases amounting to £29,511 12s. 4d. were made during the year, the stock at the close of the year stood at £11,076 10s. 8d., showing a satisfactory reduction of £7,349 14s. 3d. in the value of stocks carried. This indicates a satisfactory absorption of stocks, combined with economy in quantities of stocks ordered by the Department.

Requisitions filled by the Department during the year numbered 1,847. Invoices for goods purchased numbered 955 and totalled £29,511 12s. 4d.

Considerable saving has been effected by the opportune purchase of various lines. For instance, two lots of cement, each 100 tons, from England, have been delivered to the Public Works Department at a shade under £6 per ton, resulting in a saving of £2 5s. per ton over what it could have been delivered at from New Zealand. Rough lumber has been delivered at £1 5s. per 100 superficial feet, A contract for 100 bales of copra-sacks enabled this Department to sell same to the Crown Estates at 14s. 3d. per dozen during a time when they rose to 17s. 3d. f.o.b. Sydney, meaning an average saving of £5 per bale delivered.

APIA OBSERVATORY.

The work of the Apia Observatory embraces a study of the earth's magnetism, earthquakes, meteorology, and atmospheric electricity. Each of these four main branches requires subsidiary activities, including the determination of time, tide observation, and storm forecasting.

MAGNETISM.

In magnetism continuous photographic records have been obtained throughout the year of the declination, horizontal magnetic force, and vertical magnetic force. The mean value of these elements for each hour has been determined and tabulated. The average mean values for each of the past three years are as follows:—

	Declination East.	Horizontal Force, C.G.S. Unit.	Vertical Force, C.G.S. Unit.
Mean, 1924	10° 19·2′	0·35249	—0·20453
Mean, 1923	10° 16·3′	0·35248	—0·20440
Mean, 1922	10° 13·6	0·35241	—0·20423

Compared with the large number of magnetic observations taken in the Northern Hemisphere, those in the Southern are few, and therefore each added station below the Equator furnishing magnetic observations is proportionately a larger gain to hydrographic offices in the preparation of navigators' charts and to investigators of the problem of the earth's magnetism. That future changes in the earth's magnetic field cannot be predicted on the basis of past changes is well exemplified at Apia; for eighteen years (1904–22) there was a steady annual decrease in the horizontal intensity, yet in 1923 this suddenly changed without assignable cause from a decrease of 0·08 per cent. to an increase of 0·08 per cent., which increase was further maintained in 1924.

In co-ordination with other observatories, quarterly reports in regard to the magnetic character of the days were sent to the Comité Meteorologique International, De Bilt, Holland. A quarterly statement descriptive of the occurrence and duration of magnetic storms has been prepared for publication in the *Journal of Terrestrial Magnetism*, and in January, 1925, a summary of the magnetic observations for 1924 was sent to the hydrographic offices of the leading nations of the world.

SEISMOLOGY.

The Observatory is equipped with two Wiechert seismographs; both have given continuously satisfactory service throughout 1924. During this period 366 earth-movements were recorded, which