

WEDNESDAY, 14th JUNE,
At 2 30 p.m.

SALE OF FREEHOLD PROPERTIES IN PORT CHALMERS
AND NORTH-EAST VALLEY.

JAMES SAMSON AND CO.
are instructed by the Public Trustee as trustee in the estate of Susan M'Lauchlan, deceased, to sell by auction at their rooms, Dowling street Dunedin:—

PORT CHALMERS PROPERTIES.

1. Part section 46, George street, 17.7-10 poles, with Marine Hotel (17 rooms), subject to lease to Mr. Robert Sharp, expiring 22nd July, 1901.
2. Part sections 45 and 46, George street, 21.7-10 poles, with three-roomed house and livery stables, subject to lease to Mr. Charles Stevenson.
3. Part section 45, George street, 9.9-10 poles, with nine-roomed house, wash-house, etc., presently occupied by Mr. C. Reeves; weekly tenancy.
4. Part sections 45 and 46, George street, 25.5-10 poles, with double house of three rooms each, let to Mr. Painter and Mrs. Greaves; weekly tenancy; small portion subject to Mr. Sharp's lease.

NORTH-EAST VALLEY PROPERTIES.

5. Allotment 1, block XV., Ascotvale, 8.9-10 poles.
6. Allotments 7 and 8, block I., St. John's Wood (Black's road), 20.9-10 poles, with four-roomed cottage, wash-house, and scullery, let to Mr Buchanan: weekly tenancy.
7. Allotment 27, Ferguslie, Main road, having 25ft frontage by a depth of 50ft, with shop and five roomed house. Presently let to Mr Cooper; monthly tenancy.

For plans, conditions of sale, and full particulars, apply Public Trust Office, Dunedin; A. A. Finch, Esq., solicitor, Dowling street, Dunedin; F. W. Platts, Esq., solicitor, Port Chalmers: or the auctioneers.

WRIGGLESWORTH AND BINNS,
PHOTOGRAPHERS

TO HIS EXCELLENCY THE GOVERNOR.

CHR'STCHURCH, WELLINGTON AND DUNEDIN.

DUNEDIN ELECTORATE.
ELECTION NOTICE
TO THE ELECTORS.

I intend to be one of the CANDIDATES at the next Election. I have been resident here for 31 years and besides having been Mayor and City Councillor for Dunedin, I have occupied other important public positions in town and country.

Yours, etc.
C. R. CHAPMAN.

WINNING NUMBERS

In						
ST. ANDREW'S	CATHOLIC	ART	UNION.			
282	178	109	185	1	481	221
57	110	190	107	112	147	179
J. O'CONNOR, Hon. Sec.						

NOTICE.

All communications connected with the Commercial Department of the N.Z. TABLET Newspaper are to be addressed to John Murray, Secretary, to whom also Post Office Orders and Cheques are in all instances to be made payable.

All communications connected with the literary department, reports, correspondence, newspaper cuttings, etc., should be addressed to the Editor.

Correspondents are particularly requested to bear in mind that to insure publication in any particular issue of the paper communications must reach this Office not later than Tuesday morning.

Correspondents forwarding obituary and marriage notices are particularly requested to be as concise as possible.

Annual Subscription, 25s booked; 22s 6d if paid in advance; shorter periods at proportionate rates.

DEATH.

GOLDEN.—On the 1st inst., at her residence, Upper MacLaggan street, Catherine, relict of the late John Golden, native of Ballysimon, County Limerick, Ireland; aged 59 years.—R.I.P.

The New Zealand Tablet.

FIAT JUSTITIA.

THURSDAY, JUNE 8, 1899.

THE NEW SOURCE OF ENERGY: MORE ABOUT LIQUID AIR.



JUST twelve months ago Professor DEWAR, the noted English chemist and experimentalist in low temperature phenomena, remarked in one of his lectures: 'It is said that our American cousins purvey liquid air in milk-cans.' This was one of the little spices of pleasantries with which the eminent Professor is wont to season the dry details of the liquefaction of oxygen and other gaseous bodies. But truth is often wrapped in a witticism, as the silkworm within its flossy cocoon. Hitherto many a political prophecy has been gaily flung to the winds on the thistle-down of a light *ban-mol*. Now it is the intings of the scientific seer. Before twelve months had passed by, the mere laboratory model of a machine devised by Mr. CHARLES E. TRIPLER, of New York, was turning out liquefied air at the rate of about four gallons per hour at the trifling expense of about ten pence per gallon; and the first measure of the liquid air sold was delivered to Mr. WILLIAM CLARKE PECKHAM, literally in a milk-can. The eyes of the scientific world are riveted upon liquid air just now. *McClure's Magazine* opened in March with sensational details of Mr. TRIPLER's experiments. The *Century Illustrated* last to hand follows it up with fresh details and photo-illustrations which bring home to the eye in realistic fashion this latest, most puzzling, and most sensational product of chemistry and applied mechanics.

Before the invention of Mr. TRIPLER's machine, liquid air was procurable only in minute doses. Even in the hands of that magister of ultra-Arctic temperatures it was merely a costly laboratory curiosity. Mr. TRIPLER's machine—although merely a small working model—has enormously increased the output and diminished the cost of liquefied air. It is based on the principle that the expansion of a gas under pressure lowers its temperature. The American experimentalist convinced himself that by making the expansion continuous, he could secure a continuous lowering of temperature. He set to work, devised his new machine, and subjected the harmless, necessary atmosphere, in a series of tubes, to the merciless pressure of two thousand to three thousand pounds per square inch. He threw ice and freezing mixtures—like physic—to the dogs, and gently cooled the tubes by water rippling round the pipes. The rest of the process is thus described by Mr. W. CLARKE PECKHAM:—

By a peculiarly constructed device, the proper proportion of the compressed air is allowed to escape continuously, and flows back over the outside of the coil through which it has just come. The pressure in the system is all the while maintained by the pump. The apparatus is packed with felt to prevent the entrance of heat. The air which escapes expands and is cooled, and cools the inner coil of pipe. The result of this continuous flow is a continuous fall of the temperature within the pipe till the air within it is liquefied at 312 degrees below zero.

'This,' says the same writer, 'is a very simple process.' Its very simplicity is one of its chiefest merits. The distinguished American chemist aimed at liquefying the air directly without the use of any intermediary cooling agents. He had the will. He found the way. And now the scientific world is standing on tiptoe to see what is going to happen next.