et ceux de Province avec les subdivisions suivantes; les intérieurs de luxe, les intérieurs bourgeois et les intérieurs du peuple.

Une étude détaillée de plusieurs intérieurs typiques de chaque division me permet d'arriver à la conclusion que la plupart de ces descriptions révèlent un rapport entre le caractère d'un personnage et son milieu.

MASTER OF SCIENCE

M. Sc. PHYSICS

EDWARD PERCY AIKMAN

SOME STUDIES IN THE RAMAN EFFECT.

(1). A curved film-holder has been designed for the two-prism spectrograph used by the author in his Raman Effect investigations. This fits the focal curve of the camera lens and ensures practically perfect focus over the 4000-7000A° region of the spectrum.

(2). The Wood method of irradiation with mercury arc excitation has been used to obtain the Raman spectra of water and hydrogen peroxide.

(3). The feature of the water spectrum is a diffuse band of 3200-3500cm.$^{-1}$ shift. This represents the vibration of the O-H linkage.

(4). The feature of the hydrogen peroxide spectrum is a sharp Raman line of 875cm.$^{-1}$ shift. This is attributed to the oscillation of the extra oxygen atom.

A twenty-four hour exposure of a 70% solution reveals no evidence of an O-H oscillation, indicating that this must be very diffuse.

The low value of the oxygen shift indicates a different type of bond than the usual O-O binding, being obviously much weaker.

Suggested configurations for the hydrogen peroxide molecule which involve usual types of binding to the extra oxygen atom would therefore appear to be unsuitable. The experimental evidence can be explained if one considers this atom to be bound to the oxygen atom in the water configuration by means of a coordinate co-valent bond. This would explain the ease with which the peroxide decomposes.

M. Sc. CHEMISTRY

L. M. BAXT

THE INVESTIGATION OF GASEOUS OXIDATION PROCESSES BY THE METHOD OF DILUTE FLAMES.

Dilute Flames

An attempt was made to investigate the oxidation of zinc ethyl by the method of "dilute flames". However, no flame could be obtained even at quite high temperatures and pressures. Furthermore, there was no evidence of any reaction whatever at the low pressures used. The oxidation of zinc ethyl is always accompanied by the deposition of a white precipitate, and this could not be observed.

This is in sharp contrast with the results obtained in the case of metal vapours, and the halogens. Even with oxygen, these metal vapours will react, although they do not emit light. When tried at higher pressures (2 or 3 cm.) the zinc ethyl would react, but no light was given off.

These results show that the oxidation of zinc ethyl has a fairly high heat of activation; otherwise we would obtain reaction at low pressures. Also, since there is this high activation energy, there are no free radicles or atoms in the process.

Diffusion Flames

A preliminary investigation of the oxidation of calcium vapour was attempted using the "diffusion flame" method. However, time was lacking, and no real results could be obtained.

M. Sc. EXPERIMENTAL MEDICINE

RONALD V. CHRISTIE

THE INTRAPLEURAL PRESSURE: ITS SIGNIFICANCE IN HEALTH AND DISEASE.

A method has been developed for the simultaneous registration of the tidal air and intrapleural pressure, and measurement of the pulmonary elasticity and distensibility. The elasticity of the healthy lung is nearly perfect and the distensibility is comparatively constant. In emphysema there is an almost