

ABSTRACTS OF COMMUNICATIONS.

*Minnesota Branch.***Sixteenth meeting.***Minneapolis, Minnesota, February 16, 1924.***172 (2404)****The antiscorbutic value of canned vegetables and its preservation by exhausting the air before processing.**

E. L. SCHIELD (by invitation).

[From the Department of Physiology, University of Minnesota, Minneapolis, Minn.]

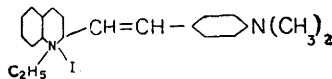
Commercial canned corn, beans or peas contain considerable antiscorbutic vitamin. By removing the air before processing, the antiscorbutic vitamin is doubled or quadrupled. This work was completed a year ago.

173 (2405)**Determination of gastric acidity and pH.**

By J. F. McCLENDON.

[From the Laboratory of Physiological Chemistry, University of Minnesota, Minneapolis, Minn.]

The free HCl of the gastric contents may be easily titrated using brom phenol blue as an indicator. The "total acidity" has no chemical meaning. The pH may be determined by means of the Duboscq colorimeter, using quinaldine red



as an indicator. The centrifuged gastric contents are measured and an equal measure of distilled water taken as a standard.

The same amount of indicator is added to each. The percentage dissociation is determined by the percentage color. The pH is read from the following table:

Percentage dissociation	2	3	4	5	6	7	8	9	10
pH	1	1.2	1.3	1.4	1.5	1.6	1.65	1.7	1.74
Percentage dissociation	14	20	24	29	34	39	44	50	
pH	1.9	2.1	2.2	2.3	2.4	2.5	2.6	2.7	
Percentage dissociation	56	61	66	71	76	80	91	99	
pH	2.8	2.9	3.	3.1	3.2	3.3	3.7	4.7	
Percentage dissociation		56	61	66	71	76	80	91	99

(The conductance ratio of HCl and the activity of the hydrogen ions is not exactly the same.)

174 (2406)

The effect of secretin on blood forming tissue.

By JOSEPH T. KING (by invitation).

[From the Laboratory of Physiological Chemistry, University of Minnesota, Minneapolis, Minn.]

It has been claimed by some¹ that injections of secretin stimulated the blood forming tissue. After injections of an acid extract of intestinal mucous membrane (secretin) there is a sharp rise in the blood count. The time required for the rise and return to normal is about three hours.

Using stained smears and supravital staining (brilliant cresyl blue) as criteria of new cell formation, it is found that there is no increase in the percentage of reticulocytes and no evidence of unusual marrow activity in the stained smears. Therefore, the rise in count must be due to an escape of plasma and not to increased cell formation.

¹ Downs and Eddy, *Am. J. Physiol.*, 1918, xlvii, 209.