Finally a series of flours was employed. Some of these were soft wheat flours from which the gluten could be washed only with difficulty. Buffer solutions of pH values 4.4, 5.4, 5.8, 6.8 and 7.6, all of 0.1 per cent concentration were compared with tap water, 0.1 per cent NaCl and 0.1 per cent $CaCl_2$.

With three of the six flours which have been investigated the least protein dispersion occurred with the buffer solution of pH = 6.8. In the other three flours there was approximately the same dispersion by buffer solutions of pH = 5.8, 6.8 and 7.6 and by tap water. In those flours which were particularly difficult to wash, the least difficulty was experienced with the phosphate buffer solution of pH = 6.8.

With each of the six flours, imbibition by the gluten washed out with this buffer solution checked closely with imbibition by the tap water gluten. Imbibition by sodium chloride solution glutens was variable. Imbibition by calcium chloride solution glutens was invariably highest. These calcium chloride glutens were also characteristically incoherent and sticky. This is important in indicating a specific effect of calcium ions on gluten quality. The failure of tap water to produce a similar effect on gluten quality may be due to its lower concentration, to the antagonistic effect of some of its anions, or to its buffer action.

The results suggest that uniform results in gluten washing may be obtained by the use of a sodium phosphate buffer solution which is approximately neutral in reaction and which has a concentration of 0.1 per cent.

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Effects of dehepatization on the reactions of the urinary bladder in canine anaphylactic and histamine shock.

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In a previous paper[1] it was shown that the urinary bladder is thrown into sharp contraction during the first two minutes of

[1] Manwaring, W. H., Hosepian, V. M., Enright, J. R., and Porter, Dorothy F., PROC. SOC. EXP. BIOL. AND MED., 1924, xxi, 284.

canine anaphylactic shock. Apparently identical reactions of the urinary bladder are produced by the intravenous injection of histamine.

The bladder contraction in canine anaphylactic and histamine shock is not secondary to the preceding fall in arterial blood pressure. Reduced arterial blood pressure causes the opposite effect, a slight decrease in bladder tone.

The anaphylactic bladder reaction does not take place in dehepatized dogs. With intravenous injections of routine doses of foreign protein the bladder tone remains unchanged throughout the test (five minutes). In contrast with this finding, dehepatization does not abolish the typical bladder reaction to histamine.

We therefore believe that the bladder contraction in canine anaphylactic shock is caused by the sudden formation or liberation of internal hepatic products (hepatic anaphylotoxins), having a histamine-like effect on the urinary bladder. If the blood-free anaphylactic liver is perfused with Locke's solution containing specific foreign protein, the perfusate becomes suddenly opalescent, even milky.

ABSTRACTS OF COMMUNICATIONS.

Minnesota Branch.

Eighteenth Meeting.

Minneapolis, Minnesota, May 7, 1924.

270 (2502)

The nature of the substances adsorbed on the surface of the fat globules in cow's milk.

(Preliminary Report).

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It is possible to account for the emulsion character of the fat in milk and cream both on theoretical grounds, because of the abundant presence of hydrophilic colloids in milk plasma, and on

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