II. "Note on the Existence of a Milk-curdling Ferment in the Pancreas." By WILLIAM ROBERTS, M.D., F.R.S., Physician to the Manchester Royal Infirmary. Received May 10, 1879.

In the course of some observations on the digestion of milk by extract of pancreas, I found that the milk passed through a more or less pronounced phase of curdling, which often considerably delayed the complete peptonising of the casein. As the property of curdling milk has hitherto been regarded as the special appanage of the gastric ferment, I was unprepared to find it also associated with the ferments of the pancreas. There is, however, no doubt about the fact, at least in regard to the pancreas of the pig, the ox, and the sheep.

It was found that extract of pancreas made with saturated solution of sodium chloride had much stronger curdling powers than the glycerine extract, whereas the latter had stronger proteolytic powers than the former. This indicates that the curdling ferment of the pancreas is distinct from the proteolytic ferment (the trypsin of Kühne), just as it has been recently shown that the curdling ferment of the stomach is distinct from pepsine.

The brine extract of pancreas, or pancreatic rennet, as it may be called, seems to act on milk exactly in the same way as rennet made from the calf's stomach. It coagulates casein actively, both in neutral and in alkaline milk, and it may be assumed as probable—at least until further inquiry—that the curdling agent of the stomach and the curdling agent of the pancreas are one and the same ferment.

III. "On some Recent Improvements made in the Mountings of the Telescopes at Birr Castle." By the EARL OF ROSSE, D.C.L., LL.D., F.R.S.

(Abstract deferred.)

IV. "The Measurement of the Ratio of Lateral Contraction to Longitudinal Extension in a Body under Strain." By A. MALLOCK. Communicated by Lord RAYLEIGH, F.R.S. Received May 17, 1879.

The three coefficients which define the elastic properties of isotropic solids, viz., the simple rigidity (n), Young's modulus (q), and the elasticity of volume (k) are connected by the equations

$$2n\,(\mu+1)=q=3k\,(1-2\mu).$$

The quantity μ or the ratio of lateral contraction to longitudinal extension, the measurement of which forms the subject of this paper,

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