of 0.9 per cent. hydrochloric acid: Steer 1128 was killed by the third injection of 23 liters of 0.9 per cent. acid; while Cow 1009 still lives after receiving the unexpectedly large amount of 20 liters of 0.9 per cent. acid following an injection of 15.5 liters of 0.6 per cent. acid made seven days before. In Szili's work, the largest dose of acid tolerated by the experimental animal (a ram) was 0.23 gram of hydrochloric acid per kilo of body weight. In the present work, Cow 1009 is apparently in good condition after receiving 0.87 gram of hydrochloric acid per kilo of body weight.

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Anaphylaxis to formed or cellular elements.

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Our present knowledge of anaphylaxis is based almost entirely on the study of proteins in solution, such as blood serum. From the standpoint of infectious disease, the analysis of the immunological reaction to formed elements would appear to be of greater importance. The anaphylactic response to bacteria has regularly been found to be extremely slight. The present report deals with a study of the anaphylactic response to red blood cells.

Friedberger reported during the current year that guinea pigs could not be sensitized to alien red blood cells either by the active or by the passive method. On the contrary, these animals can regularly be sensitized by either method provided the proper technique be followed. In order to sensitize actively against alien red blood cells it is essential to give a series (2 or 3) of preliminary injections, instead of the single sensitizing injection which is customary in the case of serum. The reason for this will be obvious from the subsequent data. As regards passive sensitization, it is of importance to note that Friedberger, like Thiele and Embleton and others who have worked on this subject, used the serum of rabbits immunized against sheep red blood cells. This particular type of serum, however, is peculiarly unfitted for such an experiment. It possesses primary toxicity for the

guinea-pig tissues, which is usually ascribed to the presence of the same antigen in sheep cells and guinea-pigs cells. Consequently the latter neutralize the injected hemolysins, instead of anchoring them in unchanged form. If, however, the serum of rabbits immunized against ox red blood cells is used, passive sensitization is invariably induced.

The mechanism differs somewhat from that of serum anaphylaxis. As in the latter, indeed, the essential factor is the cellular or anchored antibody. In addition, however, there must be sufficient circulating antibody to break up the alien cell (hemolysin), dissolve its protein, and so bring it into intimate contact with the anchored antibody. It is on this account that an animal must be actually partially immunized, so that its blood gives a hemolytic titer, in order to sensitize it. These two factors have been demonstrated by showing that passively sensitized guinea-pigs which have then been thoroughly perfused with normal guinea-pig blood, are no longer sensitive to washed alien red cells, but do succumb to the injection of sensitized cells. Actively sensitized animals react in the same fashion, if the experiments are done at a long interval after primary sensitization, when circulating hemolysin has disappeared. Finally, in all animals dying of red cell anaphylaxis the blood serum is tinged with hemoglobin. As regards controls, it may be said that the injection of sensitized cells, or the simultaneous injection of cells and hemolytic serum has no effect.

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The origin of endogenous uric acid.

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The source of the endogenous uric acid of the urine has been the cause of much speculation and experimentation for years. The theories that it arises from glandular or muscular activity, however, have claimed most attention.

Experiments have been conducted on man to determine the