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Refined Hyperimmune Rickettsial Sera.

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Topping¹ has demonstrated that monkeys and guinea pigs fatally infected with Rocky Mountain spotted fever can be caused to recover by the administration of hyperimmune rabbit serum. This naturally suggests that such serum may have value in the treatment of human cases. The sera prepared by Topping were made by the injection of infectious tick-tissue as antigen. We have found that a serum of high neutralizing titer can also be obtained by injecting rabbits with yolk-sac material prepared according to the method of Cox.² We have determined that this can be refined by the same chemical procedures which are useful in purifying antipneumococcal rabbit serum and removing its toxic and reaction-producing elements. In such concentrates the neutralizing titer per gram of protein is increased about 20-fold as compared with the original serum. A similar antiserum and concentrate of high neutralizing value has also been made against the Breinl strain of European typhus. Sufficient quantities of these two sera are now being prepared and refined so that a thorough clinical study of their possible effectiveness in the treatment of Rocky Mountain spotted fever and epidemic typhus fever in man can be made.

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Fate of the Lethal Effect of Sublethal Doses of Lanatoside C, Digoxin and Digoxigenin.

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The availability today of many of the "genuine" and intermediate glycosides and of the genins of the digitalis group has made possible the study of the relationship between structure and pharmacologic action. The importance of this study lies in the possible therapeutic

¹ Topping, N. H., *U. S. Pub. Health Rep.*, 1940, **55**, 41.

² Cox, H. R., *U. S. Pub. Health Rep.*, 1938, **53**, 2241.