

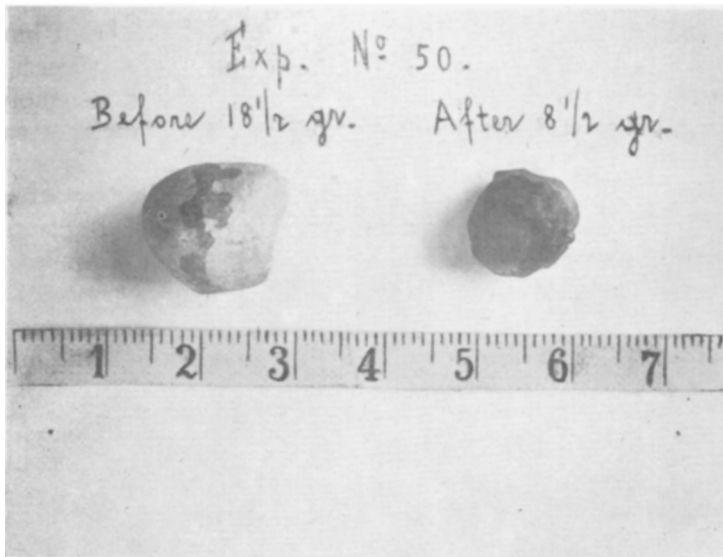
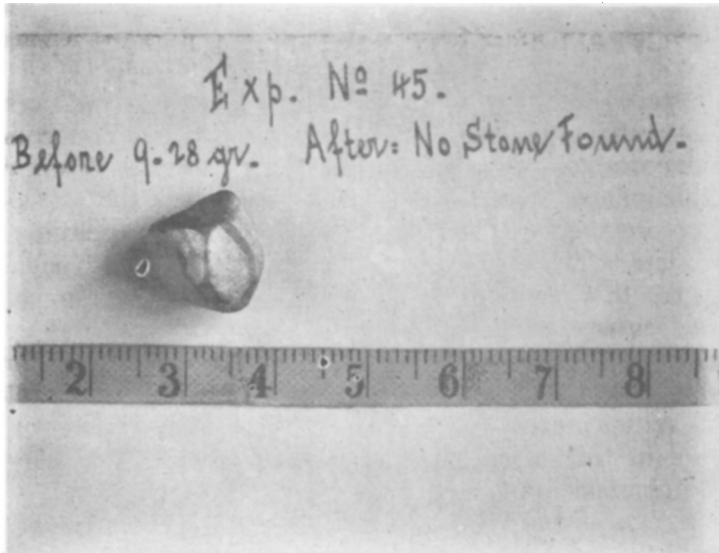
3784

Effect of Living Gall Bladder on Human Biliary Calculi.

F. M. HARRISON AND W. H. BARBER.

From the Department of Experimental Surgery, New York University and Bellevue Hospital Medical College.

To determine the effect of the normal living gallbladder upon biliary calculi, the gallbladders of 8 normal dogs were opened under



surgical anesthesia and asepsis and stones from human bladders, too large to pass through the canine ducts, were inserted. The stones chosen were of the compact variety made up of bile pigments, calcium, iron, and, in some, cholesterol. The experimental animals were confined in laboratory cages and were given a regular mixed diet. After an average duration of 60 days in these 8 dogs, the stones had diminished in size in 3 and had disappeared in 5.

3785

Effect of Bacteriophage Upon the Agglutination of Hemolytic Streptococci.

GREGORY SHWARTZMAN.

From the Laboratories of the Mount Sinai Hospital.

There exists a definite effect of the bacteriophage upon the phenomenon of agglutination in the coli-typhoid-dysentery group, as is seen from papers by d'Herelle,¹ Bordet,² Gratia³ and others. Since the studies on this problem were confined exclusively to the coli-typhoid-dysentery group, it was thought desirable to extend them to hemolytic streptococci in which the phenomenon of bacteriophage was shown to exist, Dutton,⁴ Shwartzman.⁵

The effect of two lytic principles upon various strains of pathogenic streptococci which differed in their antigenic structure and their susceptibility to these principles, was investigated. The results may be grouped as follows:

1. The first group of changes of a whole culture was observed with a strain of scarlet fever streptococci grown in broth containing lytic principle. The changes consisted of complete inagglutinability by the normal culture serum; considerable loss of agglutinin absorbing power, and partial loss of agglutinogenic power. Two rabbits persistently immunized with this antigen responded with agglutinins of a low titer (1:400). The same method of immunization with the normal culture gave sera of titer 1:12,800.

2. When a strain highly susceptible to phage was made resistant to this principle it underwent changes which were still more marked than those described above. These changes manifested themselves in complete inagglutinability, complete loss of agglutinin absorbing and agglutinogenic properties. Five animals failed to respond to immunization with lysed cultures or with the resistant type of this