The origin of the infection and its relation in the 2 patients could not be established. In several samples of earth and fertilizing material from the greenhouse in which the patients were working, the bacillus was not found. The infection of the son occurred late in the course of the father's infection and the possibility of the son having been infected from the father cannot be excluded.

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Elimination of Urine and Dye by Aglomerular and Glomerular Kidneys.

J. GRAHAM EDWARDS. (Introduced by W. J. Atwell.)

From the Department of Anatomy, School of Medicine, University of Buffalo.

Detailed anatomical studies were made preliminary to quantitative analyses of blood (plasma) and urine taken simultaneously from certain fish (teleosts). These studies establish definitely the character of the renal tubule and the blood supply to the kidney. In the aglomerular kidney, the blood supply is solely venous. In the glomerular kidney it is venous and arterial. Although arterial vascularization is apparently the necessary accompaniment of glomerular development, no definite relation obtains between the number of glomeruli developed and the number of tubules connected with them. All stages are found from no glomeruli to few or many. In 4 genera represented in 3 widely differing and unrelated families, the mesonephroi of which are (a) entirely aglomerular, (b) almost aglomerular, (c) predominantly glomerular, the blood and urine were analyzed for the commonly occurring constituents except uric acid and sulphates. The results of these analyses (analyses by Dr. Luigi Condorelli, Department of Clinical Pathology, the Royal University of Naples) show clearly that the urine eliminated by the 3 types of mesonephroi is closely comparable and also comparable to that eliminated by the kidney of higher vertebrates, including man.

The excretion of dye by these kidneys was also determined quantitatively and found to be comparable. As far as could be determined by direct observation of the tubule in the aglomerular kidney of the living fish, which was accomplished with partial success under great difficulty, it appears that the entire tubule is colored by the dye a short time after its injection. Intraperitoneal injections of from 0.6 mg. of the dye, tetrachlorphenolsulphonephthalein, in a 3-gm.

fish to 6 mg. in one weighing 2 kilograms, result in the total elimination of the dye within 15 hours as follows: 1. Aglomerular kidney weighing from 50 to 80 mg.; amount injected 0.6 mg. to 1.2 mg.; 30% elimination by the kidney and 70% in the bile. 2. Almost aglomerular kidney of a 2 to 3 kg. fish; amount injected, 10 mg. intravascularly; amount excreted by kidney within 30 minutes after injection, —20%; bile, none. Further statement to be published elsewhere. 3. Predominantly glomerular kidney; intraperitoneal injection of 6 mg.; weight of fish 2 kg.; amount eliminated by the kidney, —70%; in bile, —30%.

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Stone Formation in the Non-Contracting Gall Bladder.

LESTER R. WHITAKER AND DAVID W. PRATT.
(Introduced by W. J. M. Scott.)

From the Laboratory for Experimental Surgery of the University of Rochester School of Medicine and Dentistry.

It has been reported previously that stones could be produced experimentally by interference with the normal mechanism for filling and emptying the gallbladder, resulting in stasis and over-concentration of bile.[1] The observations here presented tend to confirm that finding and add further evidence as to the mode of formation of gall stones.

In one cat while the gallbladder was being filled with iodized oil it was accidentally stripped away from the liver bed nearly down to the cystic duct. The gallbladder containing iodized oil was then replaced in its fossa and the abdomen closed. The next day the viscus had expelled most of the oil and partly refilled with bile, as evidenced by a shadow form with flecks of oil about the sides. The expulsion of the oil was perhaps due to rapid congestion and edema from the injury, which later subsided, allowing partial refilling of the viscus. This shadow form of the gallbladder produced by the radio-opaque oil adherent to its wall remained constant for 11 days, except that it decreased slowly in size to about two-thirds its original volume. A fat meal on the second day produced no change in the shadow. At necropsy the gallbladder was found to be filled with a very hard black cast made up undoubtedly of inspissated bile. The cystic duct, where there had probably been