Water-soluble (A) multiple \
Oil-sol. (B) " / oil solutions (D) \ tartrate oil (B) \
weekly / weekly /
oil solutions (D) \ water-soluble (A) \ tartrate oil (B) \
single / weekly / single /
water-soluble (A) \ salicylate oil (C)
single / single

4. The *percentage excretion* is nearly uniform for practically all, 15 to 25% within 3 weeks; it is much lower for salicylate-oil—2.9% (but here the excretion is very persistent, and longer after-period would give relatively higher percentage). The percentage excretion is materially above the average with single oil-solutions (D)—39 and 45%.

5. The *fecal excretion,* so far as studied, seems to be about a tenth of the urinary excretion and fairly parallel to it.

6517

Cell Injury by Antiseptics.

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Microscopic observation of the duration of the ciliary motion of the pharyngeal epithelium was utilized as an indicator of progressive injury to mucous membranes. The ciliary motion of infusorial cells (paramecia) was studied for comparison. The chart shows the median "effective dilutions"; namely, for the frog, the concentration required to stop within 20 to 40 minutes the ciliary motion

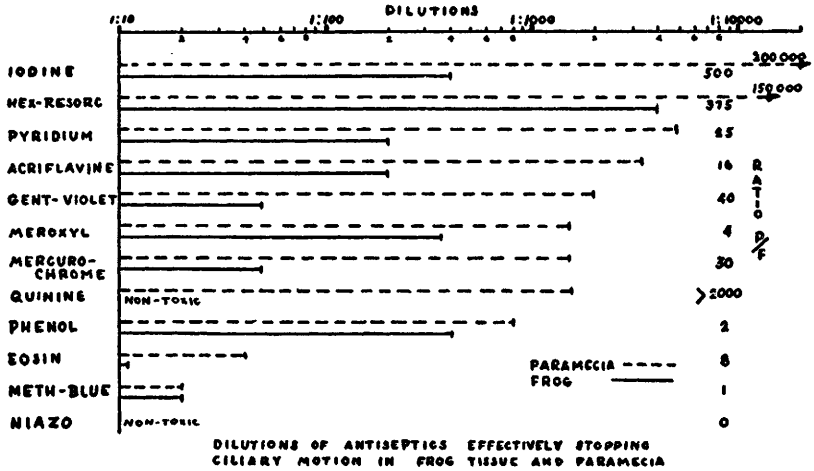

FIG. 1.

in small squares of mucosa clipped from the pharynx; for the paramecia cultures, the arrest period was chosen as 4 to 5 minutes. The scale of dilutions on the chart is logarithmic. The preparations are seen to be rather markedly toxic. The numbers to the right of the chart represent the ratio of effective paramecia dilutions to effective frog dilutions and are somewhat of an index of selectiveness of the antiseptics to the 2 preparations. Methylene blue was about equally toxic to both. With all the other antiseptics, the paramecia were more susceptible than the pharyngeal epithelium; the ratio being from 2 to 8 for phenol, meroxyl, and eosin; from 16 to 40 for acriflavine, pyridium, mercurochrome and gentian violet; 375 to 500 for hexylresorcinol and iodine; and infinite for quinine.