ONE—California and Western Medicine

OBSERVATIONS ON BACILLUS TYPHOUS IN ITS FILTERABLE STATE

A PRELIMINARY COMMUNICATION

1. The organism selected for these experiments was the well-known Roughings strain of B. typhosus, the immediate history of the culture being as follows: October 29, 1931. An agar slant was made of three-plied cultures of B. typhosus, Roughings strain. (Editor’s Note: This agar slant was made in the Laboratory of Research Bacteriology, Northwestern University Medical School, Chicago, Illinois.)

November 2. 4. p.m. Incubated six cubic centimeters of (K) protein Medium for the next twenty-four hours at 37 degrees C. November 3. 10. a.m. Filtered culture in K Medium of November 2, through a Berkefeld “N” filter. One drop of the filtrate was added to six cubic centimeters of K Medium and incubated at 37 degrees C. November 4. The twenty-four-hour culture of November 3, and K Maris was filtered, as above, through a Berkefeld “W” filter. One drop of the filtrate was added to six cubic centimeters of K Medium and incubated at 37 degrees C. Growth was abundant. November 7. The culture was again transferred to K Medium.

November 12. Still another culture was made in the same broth, using three drops of culture for the inoculum.

It is worthy of note that this three filtered culture of B. typhosus gave quite rapidly in K Medium after the second filtration it failed to grow in pure culture. In further works the technique having become filtrable and reconstituted by protein media (protein hydrolysate) lost its ability to grow in ordinary protein media. The filtrate was sterile on the 20th day, just in this number of California and Western Medicine it was going to press. The matter seemed so important to the editor that special efforts were made to have the paper appear. It is left to have other communications in future issues.

REFERENCES

2. Northwestern University Medical School, The Rube Research Laboratories, 312 Electric Building, San Francisco, California.