mycin. It remains to be seen whether these two phenomena are related.

It is evident that the choice of a medium is important in assaying streptomycin and in determining the susceptibility of bacteria to its antibacterial activity. Because of its antagonism for streptomycin, an infusion medium would be an unwise choice for this purpose. Eventually one of these reducing agents may prove helpful in testing the sterility of streptomycin solutions or in the culturing of fluids from patients under treatment. Cysteine may prove to be such an agent.

Summary. The antibacterial activity of streptomycin in infusion agar plate cultures of *E. coli* and other bacteria is diminished by anaerobic incubation. The bacteriostatic activity of this antibiotic for *E. coli* is reduced in the presence of cysteine, sodium thioglycollate, stannous chloride, sodium bisulfite, sodium hydrosulfite, sodium formate, and sodium thiosulfate. Cysteine was the most active of the agents tested. Further investigation is necessary to determine the nature of this interference. It is possible that this phenomenon is related to the mode of action of streptomycin.

References

1. Cavallito, C. L., and Bailey, J. H. *Science,* 1944, **100,** 390.
2. Chow, B. F., and McKee, C. M. *Proc. Soc. exp. Biol. Med.,* 1945, **58,** 175.
3. Colwell, C. A., and McCall, M. *Science,* 1945, **101,** 592.
4. Denkelwater, R., Cook, M. A., and Tishler, M. *Science,* 1945, **102,** 12.
5. Elias, W. F., and Durso, J. *Science,* 1945, **101,** 589.
6. Fildes, Paul. *Brit. J. exp. Path.,* 1940, **21,** 67.
7. Robinson, H. J., Smith, D. G., and Graessle, O. E. *Proc. Soc. exp. Biol. Med.,* 1944, **57,** 226.
8. Spaulding, E. H., and Goode, W. *J. lab. clin. Med.,* 1939, **25,** 305.
9. Waksman, S. A., Bugie, E., and Schatz, A. *Proc. staff Meet. Mayo Clinic,* 1944, **19,** 537.

Water-level Regulator for a Series of High-temperature Water Baths[1]

I. I. Bezman and E. P. Barrett

Mellon Institute of Industrial Research
University of Pittsburgh

It was necessary in this laboratory to conduct a series of tests at 70° C., the nature of which required the use of water as a bath liquid. The tests were carried out in two water baths, and, as efficient covers for the baths were not feasible, the diagrammed system (Fig. 1), set up in less than an hour, served to maintain the levels in both baths to within ¼ in.

In operation, the reservoir bottle, located on a shelf above the water baths, is filled from a tap, J, by closing screw-clamps, I and I′, and opening clamp I″. After the reservoir bottle is filled, clamp I″ is closed and I and I′ are opened. Line D extends below the surface of bath B and serves as a delivery tube, while line E is the regulator and cuts off the supply of air to the reservoir, F, when it is reached by the water level in the bath. Siphon C keeps the level in bath A at the same level as that in B.

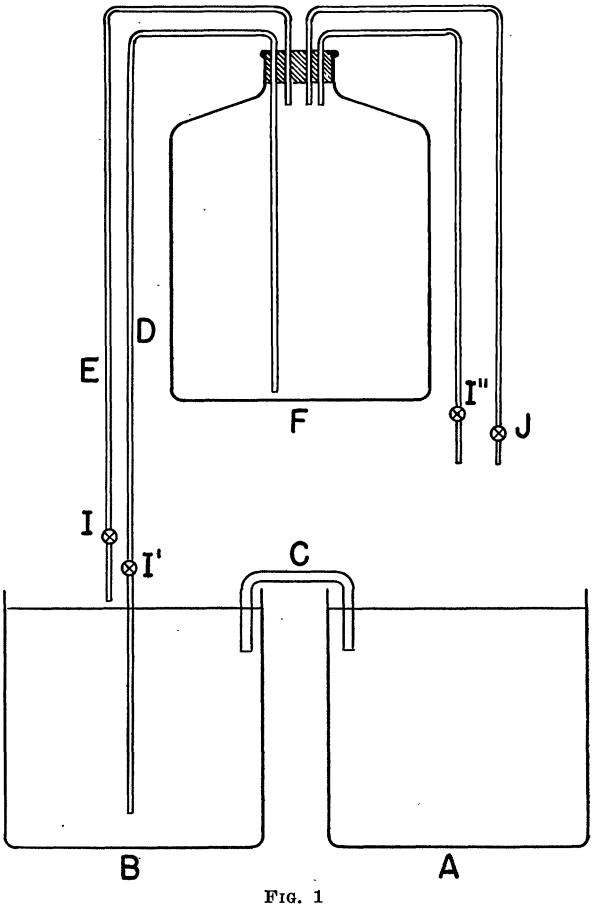

Fig. 1

The baths are of 6-gallon capacity, and the reservoir bottle holds 5 gallons. If the reservoir is filled in the late afternoon, this capacity is sufficient to make up for evaporation overnight. The tubes leading out of the reservoir are of glass, and the cork holding them is sealed in with DeKhotinsky cement. The siphon is of 15-mm. glass tubing to preclude stoppage by air bubbles.

With a sufficiently large reservoir, the system can be used to control a large number of baths. If the cost of the water is neglected, as it can be in most cases, this arrangement has a definite advantage over mineral oil baths in that cleaning of any glassware placed in the baths is much less troublesome.

[1] Contribution from the Industrial Fellowship on Optical Cements, Mellon Institute. Published by permission of the donor, Ordnance Department, U. S. Army.