

Carpenter, assistant bacteriologist to the health department of the city of Buffalo, to whom I desire thus publicly to make most grateful acknowledgments.

EXPERIMENTS, SERIES No. 1.

Made to determine, if possible, with dry gas formaldehyd fumigation in close confinement, what might be the shortest effective exposure for purposes of "scaling-instrument" sterilization.

In this series, measures were also incidentally taken to determine whether a flow of fresh gas from lamp over instruments was more effective than to completely shut off all ventilation.

Since I had no hand personally in this series of experiments, it will suffice that I submit Dr. Carpenter's report without comment, further than merely to show you how the instruments were confined, how ventilation was accomplished, and the manner of conveying the gas from the lamp onto the contaminated instruments.

[Dr. Low here exhibited lamp and tray for holding the instruments while being disinfected.]

BUFFALO, N. Y., July 14, 1899.

DR. FRANK W. LOW, Buffalo, N. Y.

Dear Doctor,—I herewith present report of experimental work performed upon your disinfecting tray for dental instruments.

Experiment 1.—Six dental instruments used in a case of pyorrhœa alveolaris were submitted. Nos. 1, 2, and 3 were used for control. Nos. 4, 5, and 6 were placed in the tray and subjected to the action of formaldehyd generated from the Low lamp, using porcelain combustion cone. All vents in the tray were wide open. The time of exposure was ten minutes. Ammonia gas was then passed through the tray, for about half a minute, in order to break up any possible combination between the disinfectant and the micro-organisms. All of the instruments were dipped into sterile bouillon to soften the adherent material, then inoculations were made into Löffler serum, and all placed in incubator. After twenty-four hours, results were as follows:

Control	}	1.	Luxuriant growth.
		2.	" "
		3.	" "
		4.	No growth.
		5.	" "
		6.	" "