February 21, 1934.

Dear Art,

I was very glad to hear from you—I wish you weren't so far away so we could get together for a real visit. Your story of deaths following cyclopropane is rather disquieting, for I have developed an extraordinary affection for the gas and feel just about ready to ditch my old love—ethylene. Before I tell you of my own experiences let me ask a couple of questions. Are you reasonably convinced in your own mind that the deaths were caused by the Cyclo, or might they have been due to some other condition in the patient? What sort of a case was the cerebral hemorrhage death? Was the pulmonary collapse death following a closed endotracheal? We all know of course that pulmonary collapse may come following any anesthetic or following no anesthetic at all. We have had
two cases of pulmonary collapse (the ordinary non-fatal kind) in the hospital since I started using cyclo. The first one was in a girl of 16. Coming on shortly after a simple appendectomy. It was during the first week I had cyclo, but by some lucky chance I had given her an ordinary ethylene anesthesia without filter, endotracheal, or any fancy stunts. If I had used cyclo everyone would have said of course, that it was that damn new anesthetic. The other case was in a young man eight days after an operation under cyclo for a ruptured appendix, and no one tried to put that down to the anesthetic, as he had been doing well and was almost ready to get up.

So far I have administered cyclopropane 185 times. The operations have been mainly abdominals, but I have purposely tried it in every kind of case, and in all ages from babies to old men of 80. I have used it with great satisfaction for the reduction of fractures, for hemorrhorrhoidectomies (where the surgeons say it gives very satisfactory relaxation almost like spinal), for Cesarean sections, and for a number of forceps deliveries and repairs. (It has no bad effect on the newborn.)
I combine it with Avertin very frequently (usually small doses) because most of my patients are private cases, and they like the pleasant avertin induction. I have given cyclo endotracheally about 25 or 30 times, using one of your balloons on a 11 or 12 millimetre tube. This gives an almost ideal anaesthesia in my opinion. It is fine for brain work.

I have seen no harmful effects from cyclopropane. In a few cases, perhaps 3%, I have noted a transient cardiac arrhythmia which seemed to appear when I was trying to get deeper anaesthesia and which disappeared on the addition of more oxygen. As far as I can tell without an electrocardiograph, this arrhythmia was produced by extra systoles. None of these patients showed any bad after effects. We have given cyclopropane to several patients with heart disease — one an advanced case of mitral stenosis with decompensation and headache — and it certainly didn’t hurt any of them.

The longest administration of cyclopropane in my series was for 3½ hours to a fat man for colostomy and bowel anastomoses.
I gave it to him by closed endotracheal, and he came this extraordinarily well. I have had to add ether for better relaxation in only three cases.

Two patients died following operation — one 36 hours after, and the other three days. Both cases were carefully studied at autopsy and in the opinion of the pathologist there was no lesion in any organ which could be attributed to the anaesthetic. Both cases were abdominal gynaecological operations — one a hydatidiform cyst of the uterus, and the other a remnant of tubal ovary. Both died of a fulminating peritonitis.

The only other complication I have had is occasional nausea — less I would say than one sees with ethylene — and in the patients who have also had avertin, it is very rare indeed. So you see I have allowed myself to become enthusiastic over cyclopropane, and I hope nothing is going to crop up to spoil our fun. No one else is using Cyclo in Montreal, I think they are starting it in Toronto (they just purchased two Foster machines for the Toronto General.) Tell me something about your experiences when you have time — and best regards.

Sincerely, Harold C. White.