site and the ventilator, there will be no PEEP in the system when the patient's lungs are manually ventilated, because one would then be using the Bain circuit expiratory valve to vent excess gases to the atmosphere. To be able to provide PEEP during manual ventilation, one would have to devise a way of putting the PEEP valve before the Bain expiratory valve.

HERNANDO Y. ARANDIA, M.D.
Assistant Professor
Department of Anesthesiology
State University of New York
Syracuse, New York 13210

REFERENCE

1. Erceg GW: PEEP for the Bain breathing circuit. ANESTHESIOLOGY 50:542–543, 1979

(*Accepted for publication October 15, 1979.*)

Anesthesiology
52:194, 1980

In reply:—The system of PEEP described by us works with either spontaneous or mechanical ventilation, although it is best suited to mechanical ventilation. When the relief valve on the patient side of the PEEP is used, the opening pressure of the valve must be greater than the PEEP value. Once the system is primed with gas, a steady level of PEEP is obtained, provided the fresh gas flow is constant. All expired gas will pass through the PEEP valve and fill the bag. When the bag is full the pressure in the system will increase to a value greater than the opening pressure of the relief valve. Manual compression of the bag increases the pressure still further, so that fresh gas will enter the lungs and some gas will exhaust through the relief valve. These changes are demonstrated at 10 cm H_2O PEEP with mechanical, manual, and spontaneous ventilation (fig. 1).

GRAHAM W. ERCEG, M.B., CH.B., F.R.C.P.(C)
Department of Anesthesia
Medical Center of Central Georgia
777 Hemlock Street
Macon, Georgia 31208

(*Accepted for publication October 15, 1979.*)

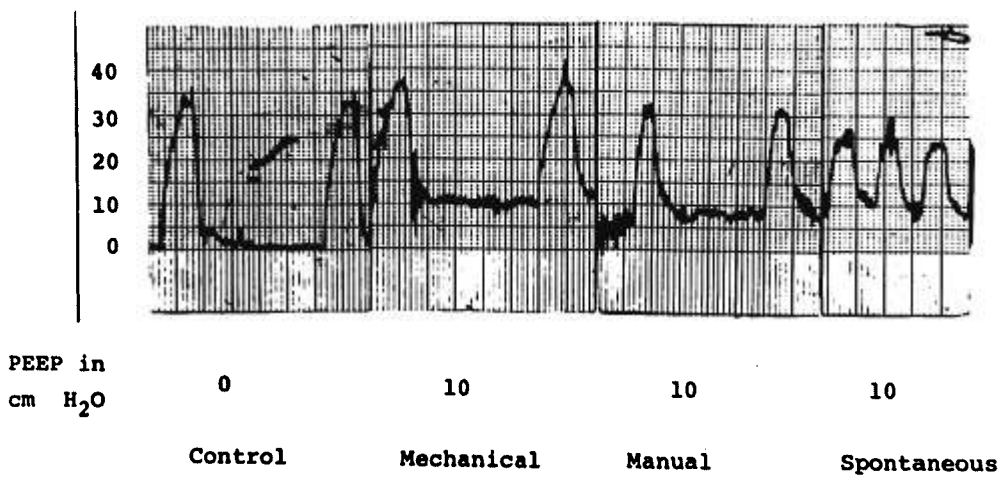

FIG. 1. PEEP with mechanical, manual, and spontaneous ventilation.