tions encountered. It is recommended that the given size be retained. The SYM tourniquet gives the following advantages:

1. The wider area compressed results in better venous stasis with less constrictive pressure on the arm.
2. The skin is not pinched or the hair pulled.
3. It stays in place regardless of the shape arm.

4. Release is easy without an untwisting action on the skin.
5. The ends are not in the way.
6. There is no sliding of the tourniquet once it is in place.
7. It will fit most patients' arms in clinical practice.
8. The unit is inexpensive and its production can contribute to the activity of an occupational therapy department.

Adaptation of the Infant Pulmonator

SOL M. SHNIDER, M.D., AND MORLEY M. SINGER, M.D.*

The infant pulmonator is described by the manufacturer as a simple effective lightweight respirator which permits the operator to inflate rhythmically and intermittently the lungs of an infant who has either ceased or never begun to breathe. It would appear, therefore, that this instrument might be valuable for resuscitating the newborn.

The apparatus consists of a Bennett infant face mask (internal volume, size 3 mask: 24 ml; size 4 mask: 38 ml), a Lewis Lee non-rebreathing valve (dead space: 16 ml) and a Neoprene-foam breathing bag (internal volume: 343 ml).

The pulmonator was found to be a potentially dangerous piece of equipment. By compressing the bag with one hand, it is possible to develop airway pressures of 180 to 210 cm. of water for a duration of 5 seconds or more. These pressures are far in excess of those necessary to expand the lungs of newborn infants. It is recommended that pressures no higher than 25 to 35 cm. of water be applied to the airway of a newborn for no longer than 1 to 2 seconds, for fear of rupturing the alveoli. Water if the duration does not exceed 0.2 seconds. It is obvious that such short time intervals cannot be guaranteed by simple manual compression of a breathing bag.

An effort was made to make the apparatus safer by attaching an aneroid manometer to the pulmonator by means of a piece of plastic tubing (see illustration). In this manner, the operator can observe the pressures achieved and not exceed the upper safe limits.

It is recommended by the authors that this

* Department of Anesthesia, University of California Medical Center, San Francisco.
simple modification to the pulmonator be performed by all those using this piece of equipment. A further increase in safety would be achieved by introducing a pop-off valve which causes the discharge of gases at pressures greater than 60 cm. of water.

A New Dual Purpose Y Connector

S. N. Albert, M.D.*

With the widespread use of relaxants for intubation there is always an interval of apnea and hypoxia while disconnecting the corrugated tubes and changing the mask Y-piece to a Y-piece that will accept the endotracheal connector. Available multipurpose Y-piece that can be used both as face mask holders and as endotracheal connectors are difficult to clean and quite cumbersome in size.

The modified Y-piece is essentially a conventional Y-piece for endotracheal connectors to which has been soldered an adaptor that will fit the regular face mask and the inner bore will accommodate a straight endotracheal connector. A plug, attached to the Y-piece, serves to obliterate the orifice that is not in use.

The advantages of the modified Y-piece are: (1) easy to clean, (2) always available, (3) simple to use, and (4) no time lost to change over from a mask Y-piece to an endotracheal Y-connector.

* 828 South Wakefield Street, Arlington, Virginia.

The names and addresses of some of the equipment described in this section may be obtained from the Journal office: Anesthesiology, J. B. Lippincott Company, East Washington Square, Philadelphia, Pennsylvania 19105.