The resistance to gas flow in this valve is very low and tests as follows:

<table>
<thead>
<tr>
<th>Flow Rate ml/min</th>
<th>Resistance in mm, Water Pressure</th>
<th>Exhalation</th>
<th>Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>0-1</td>
<td>0-2</td>
<td></td>
</tr>
<tr>
<td>500</td>
<td>3-5</td>
<td>1-3</td>
<td></td>
</tr>
<tr>
<td>1,000</td>
<td>5-7</td>
<td>2-3</td>
<td></td>
</tr>
<tr>
<td>2,000</td>
<td>7-9</td>
<td>2-4</td>
<td></td>
</tr>
<tr>
<td>5,000</td>
<td>±9</td>
<td>4-6</td>
<td></td>
</tr>
<tr>
<td>10,000</td>
<td>7-9</td>
<td>7-9</td>
<td></td>
</tr>
<tr>
<td>15,000</td>
<td>7-10</td>
<td>9-11</td>
<td></td>
</tr>
</tbody>
</table>

If the minute flow of anesthetic gas is allowed to be greater than the patient's minute respiratory volume, the excess gas escapes through the blow-off valve. Controlled and assisted respiration may be performed easily with one hand.

GEORGE W. NEWTON,
WILLIAM K. NOWILL, M.D.,
C. R. STEPHEN, M.D.,
Division of Anesthesiology,
Duke University
School of Medicine and Hospital,
Durham, North Carolina

NEW BRONCHOSCOPY SUCTION TIP: AN IMPROVED METHOD OF OBTAINING WASH SPECIMENS IN BRONCHOSCOPY

With the advent of the Papanicolaou technique for the study of wash specimens for tumor cells, several methods have been used for their collection in bronchoscopy. With modification and variation, they consist of essentially the same procedure, that of instilling saline into the lung and aspirating it out into a collection tube. The techniques of using a catheter for instillation or of flushing through the bronchoscope are unreliable and clumsy as far as accuracy in determining the specific area of the lung from which the specimen is to be taken is concerned.

It was reasoned that, if the wash solution could be introduced into the suspected bronchus by the same apparatus through which it is withdrawn, greater accuracy and facility could be accomplished. To this end, a simple three way stopcock was machined into the proximal end of an ordinary bronchoscopy suction tip. This enables the tip to be used as an ordinary suction, and, by turning the stopcock, saline wash can be instilled through the stopcock into the lung via the suction tip and be aspirated out by turning the stopcock again to the normal position.

This apparatus has found use in collecting specimens in over 500 bronchoscopies at Youngstown Hospital Association by chest surgeons and bronchoscopists. These men have found that it increases the accuracy and the ease with which a speci-
men can be taken from a specific segment of lung. It easily is cleaned and sterilized by the conventional methods and can be made with solid or flexible tips. It is well balanced and does not interfere with insertion through the bronchoscope.

It is pictured in the two positions: (A) with syringe attached ready to instill the wash solution, (B) for suction.

**Frank E. Shaw, M.D.,
402 Oak Hill Avenue,
Youngstown 1, Ohio**

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**FOAM RUBBER HORSESHOE PAD FOR PRONE POSITIONS**

Often, in neurosurgical procedures, spinal fusions, skin grafting of the back, and other surgical procedures, it is necessary for the patient to lie in prone positions for long periods of time. This position compromises efficiency of respiratory exchange in every patient under anesthesia, and particularly is it a burden to the obese or the emphysematosus patient who is often principally a diaphragmatic breather. Many devices, such as blanket rolls and sandbags, have been used to support the weight of the patient so as to facilitate movement of the diaphragm.

A simple, convenient horseshoe-shaped pad of sponge rubber may be made of one-inch foam mattress rubber. Four U-shaped pieces are cut according to the pattern shown in figure 1. These 4 pieces are stacked one on the other to form a U-shaped support with base and side arms each 4 inches by 4 inches in cross-section. The whole support may be wrapped with gauze, reinforced with tape at the angles, and covered with oiled silk or conductive rubber.

The pattern shown in figure 2 demonstrates that pieces for 2 adult- and 1 child's-size pad may be cut with very little wastage from a 1-inch layer of foam rubber mattressing from a three-quarter width bed mattress. The pediatrics pad should be 3 by 2 inches in cross-section,