DECANTING

By H. Tillisch

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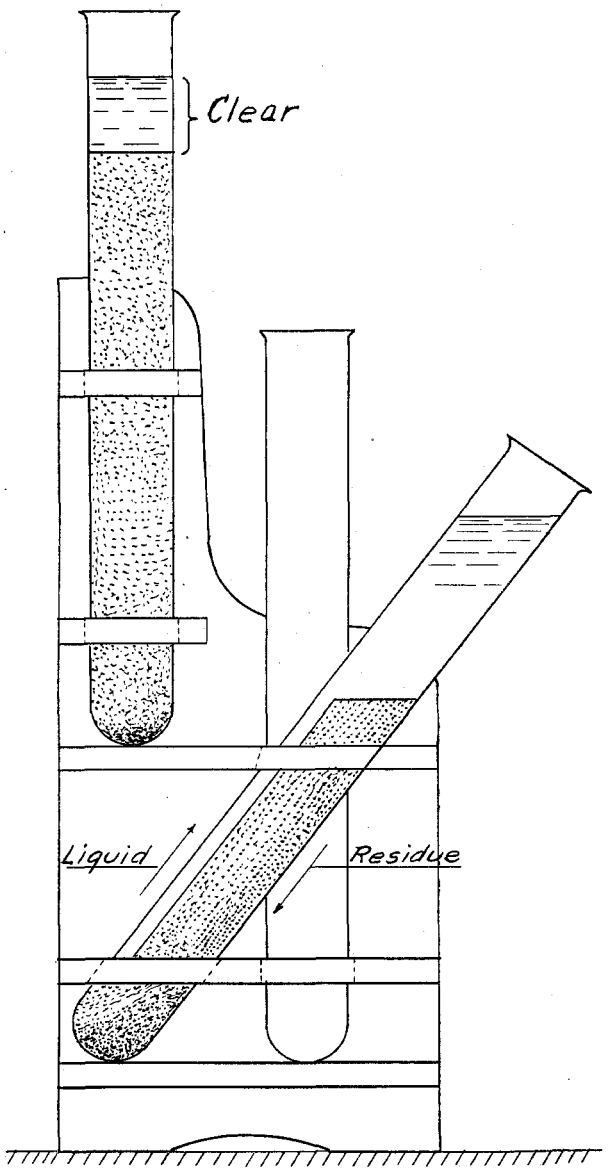
The decanting of liquids from residues is generally a very tedious operation. The time required for the separation can be much abbreviated without mechanical means, if the tube simply is held in an inclined position, *e. g.*, at an angle of 45°. The liquid will then form a channel in the upper part of the tube, while the residue will go along the under part to the bottom. In this way the two currents, upwards and downwards, will be separated from each other.



The decanting operation can thus be finished in one-third of the time required by the usual method of using vertical tubes. It is common practice to use narrow inclined tubes, etc., for obtaining a rapid decanting in liquids or for separating dust from air. The same principle can, as shown, be of use in the laboratory.

The common tube holders ought to be slightly modified for easy decanting in inclined tubes. The modification is suggested in the diagram.

Aarhus, Denmark

A DEVICE TO INSURE TIGHT CONNECTIONS BETWEEN GLASS AND RUBBER TUBING

By C. C. Kiplinger

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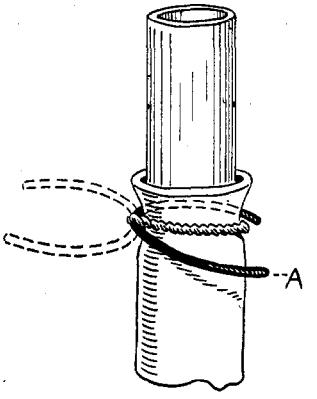
In gas analysis trouble is experienced frequently in the attempt to make tight connections between glass and rubber tubing. Experience has shown that this is accomplished best by wrapping a single turn of wire about the joint and twisting tightly. However, there are two objections to this method. The wire tends, if twisted tightly, to cut the rubber, and if the rubber tubing is appreciably over-size, the tubing is compressed or pinched near the twisted portion of the wire, frequently making a small channel through which leakage occurs.

The device herewith described overcomes these difficulties, permits the use of over-size rubber tubing, and insures gas- and water-tight joints. It has been used throughout the year with Liebig condensers and gas apparatus and has given complete satisfaction. A is a piece of stout wire bent in U form of such size that the limbs of the U will just slip over both tubes. A loop of stout cord is tied about the connection, the wire U is slipped through this loop as shown in dotted lines, the cord now twisted, using the wire as a lever, and as soon as the joint is tight, the U is turned as shown at A. Cord is better than the usual copper wire for this purpose in that the former distributes the force more uniformly throughout its length.



A further advantage of this mode of attachment lies in the ease with which it may be dismantled, requiring as it does no pliers or other tools for this purpose.

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A SIMPLE AND ENTIRELY ADJUSTABLE RACK FOR KJELDAHL DIGESTION FLASKS

By Frank E. Rice

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The apparatus here described can be made by any pipe fitter from standard pipe, and unions, and without any specially prepared parts. It will be found to cost much less than similar equipment on the market. It takes up but little space when in use, and its great flexibility in adjustment makes easily possible still further contraction when it is not being used.

A A′ is an iron pipe in which are mounted burners, *a*, each with a stopcock. At the ends of this pipe are found stopcocks, *b*, for gas intake. This line is adjustable up and down on standard B B′, which is in turn adjustable forward and back on support C C′.

An iron rod, D D′, is adjustable up and down on standard E E′, which is also in turn adjustable for-