

1 kg. of pulverized NaOH. When this has been well stirred in, add shredded asbestos gradually, continuing the stirring until the mixture no longer appears capable of wetting more asbestos. The whole mass is then heated in an air bath at 150 to 180° for 4 hrs. During the early part of the heating, additional quantities of asbestos are added from time to time until it presents the same appearance as before heating. After cooling, it is ground in a coffee mill until most of it passes a 10-mesh sieve. A tube filled with this absorbent takes up 8 to 10 g. of carbon dioxide, corresponding to 160 to 240 carbon determinations, using the full factor weight on a steel containing 0.5 per cent carbon.

RESEARCH LABORATORY, MIDVALE STEEL COMPANY
PHILADELPHIA

LABORATORY TABLE TOPS AGAIN

By HILTON IRA JONES

Received August 17, 1916

Much has been written about various sorts of laboratory table tops—wood, alberene and tile advocates have all had their say. In the past twenty years I have worked and conducted classes on every sort of top—glass, tile, cement, slate, alberene stone and wood. When I came to Dakota Wesleyan I found a new one. Five years ago Dr. Sterling Temple, now of the University of Minnesota, installed the tables here. The tops are ordinary soft pine flooring on which is laid two sheets of tar paper, and this is covered with large sheets of asbestos slate, two to a table. It is one-eighth inch in thickness. The asbestos slate is screwed on, the holes being counter-sunk and filled above the screw head with asbestos cement. The tables every year have been treated with a gasoline solution of paraffin concentrated enough so that it would set to a jelly consistency when cold. This solution is brushed on hot. We have found this method of paraffining much better and quicker than the old ironing in process. This paraffin treatment has given the tops a polished appearance but is really unnecessary and adds nothing to their immediate serviceability or life.

This asbestos top is so much better than any other top I have ever seen that I am sure it would be extensively used if its advantages were more widely understood. It has low first cost, long life, and any one can put it on. I feel certain our table tops will be in good shape twenty years hence. They are fully as good now as when first installed. The asbestos top with the tar paper beneath it has elasticity, and I find there is even less glassware broken on it than on a wooden top. Alberene stone is especially objectionable for beginners for this reason. The asbestos slate top is entirely unaffected by acid or alkali even though

boiling hot. Moreover, it is so poor a conductor of heat that even thick glass containing hot liquids may be set upon it without breaking. This does away with the use of suberite mats such as are required on stone, tile or glass tops. The asbestos slate top has everything to commend it, and after four years of use I have yet to discover a single fault.

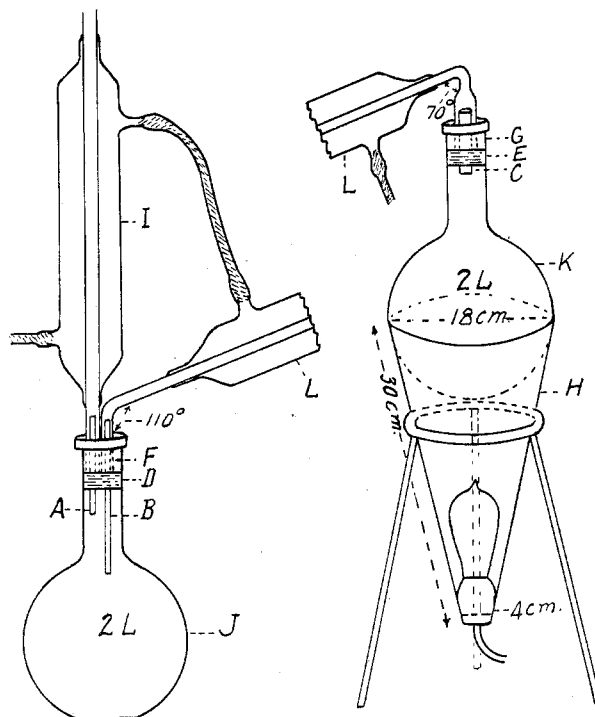
DAKOTA WESLEYAN UNIVERSITY
MITCHELL, SOUTH DAKOTA

A SIMPLE MERCURY SEALED ETHER STILL

By O. C. SMITH AND D. G. MORGAN

Received June 27, 1916

The heater *H* was constructed from a sheet of galvanized iron and an electric light socket fitted into the bottom. The corks which are inserted into the necks of the flasks at *D* and *E* should be close-grained and fit tightly so as to hold the mercury at *F* and *G*. It is not difficult to make a mercury-tight fit if care is used in selecting the corks and they are coated with a little vaseline before inserting. Before using, the flasks



should be washed with ether to remove the excess vaseline. The glass tubes *A*, *B*, *C* are about 5, 5, 10 mm., respectively, in diameter. The reflux condenser *I* prevents the escape of ether.

To remove the ether from the receiving flask *J* lift up the condenser *I* and insert a small siphon through *A*.

OKLAHOMA AGRICULTURAL EXPERIMENT STATION
STILLWATER

ADDRESSES

A CENSUS OF THE ARTIFICIAL DYE STUFFS USED IN THE UNITED STATES¹

By THOMAS H. NORTON

The necessity for a complete enumeration of the artificial coloring matters, regularly consumed by the various manufac-

¹ Address delivered before the American Chemical Society, at the New York Meeting, during the Symposium on "American Dyestuff Manufacture."

turing industries of this country soon became evident when these branches were threatened in 1914 by a dyestuff famine, as a result of the great European war.

Those who took into careful consideration the possibility of creating an independent American coal-tar dyestuff industry were obliged to study closely a number of factors bearing upon this exceedingly complicated question. Among these were such items as the supply of crude materials, the chemists and