white oak barrels for at least four years, during which time it absorbs certain tannates from the wood to acquire a color and flavor, and at the same time loses some of its undesirable properties. For this reason, the barrels must be of a high grade, tested and examined wood, or the process of aging will be a failure. The barrels are filled, under Government supervision, and stored in bonded rack houses. The Calvert warehouses have a total capacity of 308,000 barrels, kept at constant temperature and humidity throughout the four years of aging.

VII. BLENDING.

Liquors of the same type from many barrels are tapped and mixed in large vats to be used in blending a uniform product. Tests are made to know the exact nature of the constituent types in order to control the final blend. The bottles to receive the whiskey are titrated for alkalinity because an excessive alkaline condition will darken tannins present and cause precipitation of small amounts of metals.

To complete the path from grain to alcohol under careful chemical observation, the final product is checked by Calvert chemists for color, hydrometer proof, boiling point, pH value and per cent fill of bottles.

VIII. ENGINEERING CONTROL.

Operation of the processes of production at the Calvert Distilleries exemplifies modern industry where maintenance of a
CISTERN ROOM

CALVERT DISTILLERY
highly skilled staff of technicians for the control of the conditions of production is essential. It is highly advantageous to produce under such conditions of control both economically and from consideration of the purity of product.

The unit processes are greatly simplified in their operation from an engineering point of view by having central stations to control entire units. Such has been the experience of modern engineering practice at the Calvert Distilleries.

The materials to be used in production are mechanically conveyed to the points in the process where they are needed and the amounts used are automatically weighed and recorded. An ample supply of temperature-measuring devices, pressure recorders and flow meters are used to know the exact quantities of materials used and the conditions of their reaction. The plant has therefore a simplified control of operation, combined with a complete chemical check to make it one of the most modern distilleries of the world.
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