

times as heavy as air, in a room containing a mixture of the vapor with air the vapor is found in largest proportion near the floor. According to the government experts there is needed only a small proportion of gasoline vapor to render air explosive—1.4 cubic feet of the vapor to 97.5 cubic feet of air. One gallon of gasoline can under ideal conditions render 2,100 cubic feet of air explosive. A dangerous feature of gasoline vapor is that it may travel a considerable distance from the gasoline and there be ignited, the flash travelling back to the container of the liquid and causing a roaring fire in a few seconds.—*J. A. M. A.*

THE TOXICOLOGY OF BENZENE

The best way to dispel any uncertainty regarding the cause of death by foreign substances is to discover the offending invader in the body itself. When a metallic poison like arsenic or a toxic alkaloid like strychnine can actually be isolated from a dead body in quantities sufficient to constitute a fatal dose, no further evidence of the source of harm is ordinarily required. There are poisons, however, which evade detection because they are susceptible to rapid change in the organism, while still other harmful substances may elude identification because of the inadequacy of some of the technical methods at present employed in toxicologic analysis. This appears until lately to have been the case with benzene (benzol) which, though not as yet an important source of danger in this country, is now becoming more conspicuous as a cause of poisoning in man. Benzene, which is a definite chemical compound (C_6H_6) derived from coal tar, must not be confused with benzine, a mixture of volatile hydrocarbons, derived from petroleum. The older textbooks on toxicology have little to say about benzene or the hydrocarbons that commonly accompany it in the industries. A growing source of danger lies in the inhalation of benzene vapors. When benzene is taken by the mouth it appears to be poorly absorbed. A part is said to be excreted by the lungs, and a small fraction may even be oxidized slowly in the body. At the pharmacologic institute of the University of Berlin, Joachimoglu has succeeded in perfecting a method for detecting benzene and measuring the quantity present in animal tissues. By this means, interesting facts regarding the distribution of the poison in the body have now become available. It has been demonstrated that in benzene intoxication the brain and spinal cord contain relatively more of the organic poison than do any