past decade appear an automobile radiator, electric flashlight, radio tubes, aluminum cooking ware and fashionable shoes. The 1913 to 1923 layer encloses a carpet sweeper, an old square toaster that was used on top of the stove, a coffee mill and, near the bottom, a whiskey bottle with a distinct air of good breeding. Down deeper another decade gives up an oil lamp, kerosene can, ornamental stove, fancy gas light fixtures and high lace shoes. From 1893 to 1903 it can be seen that people threw away funny brownish-looking old photographs, gramophone horns, irons that had to be heated over a fire, horseshoes and high button women's shoes.

Science News Letter, November 25, 1933

CHEMISTRY

Bootlegger's Tricks Legally Age Liquor

MANY reputable distilleries, getting ready for the end of prohibition, are turning to some of the bootlegger's tricks in an effort to beat him at his own game by getting a supply of good liquor ready for the consumer in a hurry.

Quick aging of whiskey, so long as it does not involve rectification, is permissible under the law now as it was before prohibition and even during it for medicinal whiskey, Dr. W. V. Linder, chief of the technical division of the Bureau of Industrial Alcohol, explained. Rectification, the dilution or "cutting" of good whiskey with water, coloring matter and raw alcohol, is not permitted.

The various methods hastening the aging process nearly all involve heating the whiskey. At first this was done by putting the barrels in a warm room or by using a steam pipe. Then electric current was tried. Ultraviolet rays and even X-rays are among the methods that have been or are being tested.

Chemical processes to hasten the aging have involved the use of various charcoals that absorb the esters, fusel oils and other objectionable materials in raw whiskey.

Some 25 or 30 different concerns have applied at the Bureau of Industrial Alcohol for permission to try out various quick aging processes.

Science News Letter, November 25, 1933

"Turn down the electric lamp" may sound like a slip of the tongue, but you can do just that with the latest lamps: they come in three wattages, all combined in one lamp.

CHEMISTRY

Long-Known Chemical Found To be Most Versatile Solvent

ONE DREAM of the ancient alchemists, the "universal solvent," has been brought nearer to realization than ever before by the discovery that acetamide, a compound made from acetic acid and ammonia, has a wider range of solvent power than any other known substance. This discovery has just been announced by Prof. O. F. Stafford of the department of chemistry at the University of Oregon.

Because all life processes occur in solution, and because many important industries are dependent upon solubility relationships, Prof. Stafford's discovery is regarded by his colleagues as an outstanding contribution to the science of chemistry, both in its pure and applied aspects.

The best common solvents hitherto known have been ammonia and ordinary water; acetamide is declared to be superior to both. To test his discovery, Prof. Stafford ascertained the approximate solubilities of some 400 organic and 200 inorganic substances. Working on the theory that a substance is most soluble in another substance chemically related to it, he found that acetamide has such chemical kinship to an unusually wide range of other substances. That is, each of the atom-groups in its makeup reaches out, like a hand, toward similar atom-groups in many other compounds. It is this fact which gives it its great solvent powers.

Acetamide contains a methyl group that gives it solvent powers for hydrocarbons; its carbonyl group relates it to ketones, esters and acids; its tautomeric hydroxyl group gives it kinship to water and the alcohols; its amino group brings it into line with ammonia and its derivatives, while the ease with which it yields nitrile suggests a relationship to cyanogen compounds.

Acetamide has long been known to chemists, though its extraordinary solvent powers have only just been discovered. It is a solid at ordinary temperatures, but it melts at about 80 degrees Centigrade to form a mobile liquid. It is easily and cheaply manufactured from acetic acid and ammonia. Its ability to dissolve many things at present nearly or quite insoluble is expected to lead to important industrial applications.

Prof. Stafford is already well known in his field, especially for the invention of a process of wood carbonization, which is in large-scale use at an industrial plant at Iron Mountain, Mich.

Science News Letter, November 25, 1933

PUBLIC HEALTH

New Method Controls Scarlet Fever Epidemic

A NEW method of giving children resistance to scarlet fever has been reported by Drs. J. D. Allen, Jeshill Love and E. H. Sandlin of Louisville, Ky. The method is said to develop the children's resistance more quickly and with fewer and smaller doses than the method now in use and the resistance is said to last longer.

Instead of using a toxin produced by the scarlet fever germ to develop the resistance to the disease, the Louisville physicians have developed a preparation that is akin to the bacteriophage or "germ eater." They call it "phagoid."

The preparation was tried during an epidemic of scarlet fever in Louisville schools, at the request of the city health officer, Dr. C. H. Harris. None of the children developed scarlet fever after receiving the first dose and the epidemic was immediately controlled in every school.

Science News Letter, November 25, 1933

PUBLIC HEALTH

Public Told How To Combat Amebic Dysentery

MEANS of curbing the spread of amebic dysentery, which has already reached epidemic proportions, lie partly within the power of the general public, Chicago health officers declare. In view of nationwide dissemination of amebic dysentery, Dr. R. R. Spencer of the U. S. Public Health Service issued a statement stressing prevention aid.

The disease has reached epidemic proportions, Dr. Spencer said, because of the large number of healthy carriers uncovered among food handlers. The