

stead of ordinary bottles. A press of the tube allows the enamel or other material to flow on the nails without muss or leakage.

Molded plastics of brilliant colors replace the aluminum previously used on a popular double-capped shaving stick, incidentally saving aluminum for defense.

Wooden figures of "Miss Boston" and the "Governor" of old New England, as well as jugs, maple sugar kettles, butter churns and other characteristic shapes, are used to package one brand of toiletries. Still other products show the return to early American tradition in the design of their containers.

### No More Pounding

Pounding the bottom of a long-necked catsup bottle is no longer necessary because a new design makes the catsup and chili sauce container a wide-mouthed, low center of gravity jar from which the red sauce can be ladled with a spoon.

Every tobacco tin becomes its own humidior in a new pound smoking mixture container. Into the inside of the knob on the lid the user inserts a small, moistened sponge.

Wire staples of new design are used to fasten buttons on sales and display cards. Old method was to sew them on. The staples are cheaper and buttons can be removed one at a time instead of all of them coming loose when the first is used.

Even the familiar glass milk bottle has been beautified and reshaped in the interests of better service. It is a quarter lighter (weight saving of 5 ounces) and 10 per cent shorter to fit more easily in the refrigerator.

A new toilet paper container holding 21 rolls is attractively decorated and when emptied turns into a waste basket for the home.

Rubber toy soldiers march out upon a cardboard stage provided by a new display package which more than tripled the sales of this product.

Jars, crocks and kitchen utensils of America's early days are copied in the crockery and earthenware packages being used to market savories such as conserves, fish chowder, puddings, and tea. These packages are used on the dinner table long after their original contents have been eaten.

Containers of cosmetics and shaving preparations for men are based on a little jug found in the tomb of an Egyptian pharaoh, and its dress is Scotch, authentically patterned after the highland tradition.



### EARLY AMERICAN

*Conserves and other old-fashioned savories are packed in jars that recall early American crockery.*

Among the other displays that have won awards in the 10th Annual All-American Package Competition, sponsored by Modern Packaging Magazine, New York, are displays that attract the attention of purchasers to the goods that they want.

One display being used in drug stores for medical products glows attractively without any light source within it. The reason is that fluorescent materials are incorporated in the plastic material of which the display stand is made. The ultraviolet radiation in daylight or arti-

ficial lighting is converted into luminous glow that suffuses the whole fixture.

One display for oil at filling stations uses an old auto tire to make it heavy enough to stay put in wind or rough handling. A beer display became more effective when a real handkerchief was used to wipe the overheated brow of the man reaching for a glass.

Leaders of the package industry will gather at Chicago early in April when the awards of the competition will be presented.

*Science News Letter, March 22, 1941*

### ANTHROPOLOGY-MEDICINE

## Israelites of Bible Credited With High Skill in Medicine

ISRAELITES of the Bible had vast medical knowledge for their time, and were deeply steeped in Egypt's medical lore, Prof. Abraham S. E. Yahuda, formerly teacher of Hebrew Literature in the University of Madrid, told a lecture audience at the New York Academy of Medicine.

The vivid description of Biblical leprosy in Leviticus 13 and the curses of fever, itch and assorted ills in Deuteronomy 28 were cited by Prof. Yahuda as examples that could have been written

only by a person perfectly acquainted with ancient Egyptian medical practices and terminology. The medical descriptions, he said, add strength to the traditional view that Moses wrote the first five books of the Old Testament, the Pentateuch, about the time when the Israelites made their Exodus flight from Egypt.

Study of the medical references, he emphasized, refutes the contention of some Biblical critics that Hebrew medical knowledge in that time was "small

**SAFE**

Children's toys are now made of rubber, which won't scratch furniture, and are packed in a box which serves as a miniature stage.

in amount and crude in character".

Some of the Hebrew expressions are literal translations from Egyptian technical terms used in medicine, he pointed out. On the other hand, there are Egyptian medical expressions which have puzzled Egyptologists, but which can be explained from their Hebrew equivalents. Prof. Yahuda added that Hebrew terms for boils, blains, eczemas, tumors, scurvy, scabs and treatment of sick were formed from roots exactly corresponding to Egyptian stems from which names of febrile skin diseases and therapeutic terms were derived.

*Science News Letter, March 22, 1941*

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## CHEMISTRY

# Important Explosives Chemical Can Be Made From Petroleum

**G**LYCERINE, important industrial chemical used in the manufacture of explosives for America's defense program as well as in more peaceful pursuits such as the manufacture of resins for varnishes and lacquers and the processing of tobacco, can now be made from petroleum.

Members of the American Institute of Chemical Engineers, meeting in New Orleans, heard Dr. E. C. Williams, vice-president and director of research of the Shell Development Co., Emeryville, Calif., describe the new process.

At present obtained as a by-product from the soap and fat splitting industry, the price and supply of glycerine has been subject to wide variations. In 1917 it rose to 70 cents per pound and was difficult to obtain even at that figure. At that time it was made in Germany by a fermentation process, to the extent of about 13,000 tons annually, but this

method involved many commercial difficulties.

First step in the Shell process is the isolation of a gas, propylene, from the petroleum. Then comes a reaction with chlorine gas to form allyl chloride. This is treated with caustic soda to form allyl alcohol. In an alternate step, glycerine chlorhydrin is formed instead. The last step is the production of glycerine from one of the last two products.

In explosives manufacture, the glycerine is treated with nitric acid to form nitroglycerine. This is used to make dynamite and also some military explosives. The British explosive, cordite, also requires glycerine in its production.

Dr. Williams declared that the glycerine produced by the new method "is of excellent quality, meeting easily the specifications of the most rigorous user with whom we have yet come in contact."

*Science News Letter, March 22, 1941*

## MEDICINE

# Enzyme That Darkens Potatoes May Aid High Blood Pressure

**D**ISCOVERY that a common enzyme, familiar for its part in causing potatoes to darken, will reduce dangerously high blood pressure in human patients and clear up the eye and heart symptoms in high blood pressure is announced by Dr. Henry A. Schroeder, of the Hospital of the Rockefeller Institute in New York. (*Science*, Jan. 31.)

The name of the enzyme is tyrosinase. It is found in many fruits and vegetables, for example, apples, mushrooms and bananas, as well as potatoes, and also in human and other animal tissues. Dr. Schroeder used tyrosinase from mushrooms, but a mushroom diet is not therefore to be considered a cure for high blood pressure.

A pure preparation of tyrosinase was injected under the skin of 17 high blood pressure patients daily for from three to four weeks. In all but one, Dr. Schroeder reports, "the blood pressure fell a significant amount." Even patients in a late stage of the disease were improved.

Tyrosinase may be the long-sought

curative remedy for high blood pressure, but Dr. Schroeder does not think so, although he does not know yet. He is still working on the problem, trying to find out whether tyrosinase will prove to be a cure for high blood pressure or whether following this clew in further research will lead to discovery of another more effective chemical.

Reduction of high blood pressure and relief of other symptoms of the condition in small groups of patients have been accomplished by other scientists by the use of kidney extracts. Tyrosinase, which is found in animal as well as plant tissues, might be the active principle of these extracts, Dr. Schroeder said, but he does not think it is. The exact chemical composition of the kidney extract, however, is still unknown.

When he stopped giving tyrosinase to his patients, their blood pressure returned to its previous high level within three to six days, Dr. Schroeder reports. Improvement in the other symptoms and in the eye condition lasted longer.