

## MEDICINE

# New Chemical Treatment Relieves Meniere's Disease

A NEW chemical treatment that brings swift relief from acute attacks of Ménière's disease has been announced to the medical world by Drs. C. H. Sheldon and B. T. Horton, of the Mayo Clinic. (*Proceedings, Mayo Clinic, Jan. 10.*)

Ménière's disease, although probably unknown to the majority of laymen, is frightfully distressing to those afflicted with it.

"Recurrent attacks of sudden severe vertigo (dizziness), nausea and vomiting, tinnitus (ringing in the ears) and deafness" is the description given by the Mayo Clinic physicians and other authorities. The attacks may come at shorter and shorter intervals and in severe cases the patient may be confined to his bed.

The chemical, histamine, is used in the new treatment developed at the Mayo Clinic. Histamine acid phosphate dissolved in salt solution is injected into a vein, the injection taking about one and one-half hours.

"The first patient so treated, who had been confined to bed for a period of three weeks because of Ménière's disease, was promptly relieved of all symptoms and was able to get up immediately after the injection was stopped and walk about in a perfectly normal manner," Drs. Sheldon and Horton report. This patient has remained well since the treatment, a period of about two months. Similar good results were obtained in 14 other cases.

A brain operation in which the nerve of hearing on the affected side is cut has been a successful, if drastic, method of relieving the condition completely. Medical treatment using ammonium chloride and a low salt diet has also been reported to give good results. But the "almost immediate response to treatment with histamine makes this method particularly valuable when the vertigo is of great violence and the vomiting severe," Dr. H. W. Woltman, of the Mayo Clinic, points out.

*Science News Letter, February 10, 1940*

## CHEMISTRY

# Chemically Speaking, Things Are Different Now

CHEMICALLY speaking, things are different from what they were some 25 years ago at the outbreak of war. As reviewed by *Industrial and Engineering Chemistry*, (December) journal of the American Chemical Society:

**Potash.** Deep deposits in the Southwest are mined, in addition to other sources, whereas manufacturers went to great lengths, and paid pretty prices to secure potassium in some form. Cottrell precipitators stripped it in dust from cement mills. It was extracted from Trona Lake. Kelp harvesters put to sea. Residues from sugar refineries were conserved and worked.

**Acetone.** The fermentation process was developed in World War days. It is still available and in addition we have synthetic acetone of high grade and reasonable cost.

**Glycerol.** More commonly called

glycerine, it is now also made synthetically. We are not so largely dependent upon the by-product of soap manufacture.

**Fixed nitrogen.** Synthetic methanol (methyl or wood alcohol) and ethanol (ethyl alcohol) were chemical marvels then, commonplace today.

**Rubber.** Synthetic rubber-like materials are produced on a large scale now. At a chemical congress just before the World War, Germany's synthetic rubber-like substitute was a prize exhibit.

**Camphor.** It soared in price. The monopoly has long since been broken. Synthesis from turpentine produces not only a commercial but a U.S.P. grade.

**Iodine** is now obtained from our own brines and bitterns with Chile's monopoly broken.

**Petroleum.** The industry produces fuels and lubricants practically to order.

Isooctane has come out of the laboratory into large-scale commercial production. The technique of making a 150-octane fuel is already known, promising new wonders in aviation.

In producing *drugs, dyes, perfumes*, what is known as the synthetic organic chemical industry, America is quite self-sufficient in contrast to almost helplessness a quarter of a century ago. "It stands almost alone as the one benefit the United States derived from the World War."

(See also page 93.)

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## FORESTRY

## Naval Stores Production Presents Surplus Problem

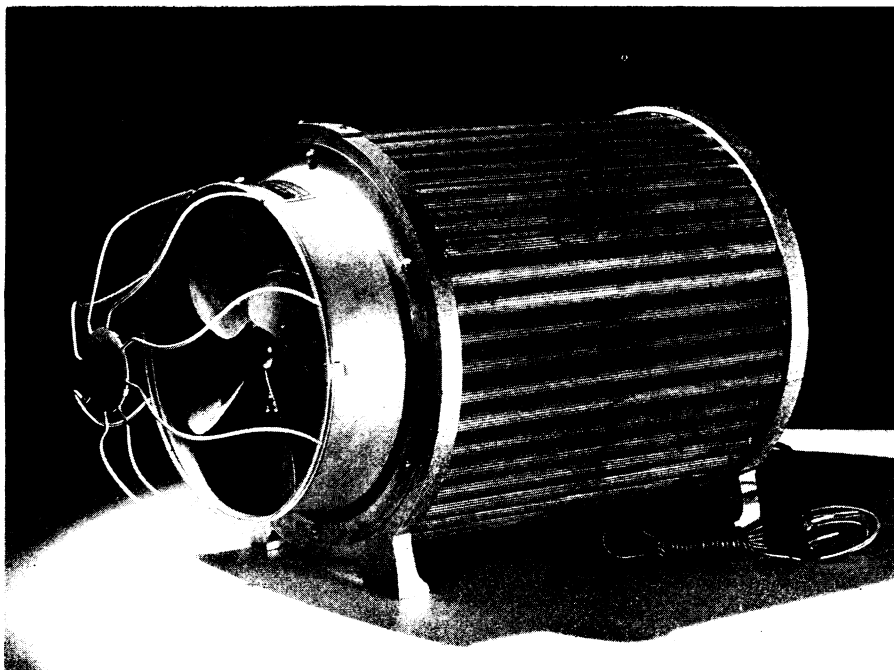
ROSIN, turpentine and allied products—the "naval stores" of commerce—present American forest products industry with a problem of surplus disposal, instead of the depletion and gradual extinction of the business which was anticipated as recently as 20 years ago. At the meeting of the American Forestry Association in Biloxi, Miss., Jay Ward of the U. S. Forest Service told some of the reasons why.

Failure of the naval stores industry to die out according to prediction has been due in large measure to the rapid development of second-growth pine timber and its unexpectedly high value as a turpentine and gum source, Mr. Ward stated. Piling up of business-spoiling surpluses is due at least in part to over-eagerness of timber owners to work their trees for turpentine.

Part of a marketing agreement which was hailed at the time as promising a real new deal for Southern pine forests was a clause limiting the working of trees to those with diameters of more than nine inches. This clause was not at all well enforced, yet it has had an educative effect, and voluntary observation has now reduced the percentage of sub-sized trees being worked from an original 30% to only 5% or 6%.

Even with the improvements that have been made, however, there is still room for many more. Mr. Ward pointed out the record of some French pines, almost unbelievable in this country, that have been yielding regular yearly crops of turpentine for a century and a quarter. While it may not be possible to equal this record under American conditions, a slightly closer approach to it would greatly increase the efficiency of American pine woods as sources of naval stores.

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ODOR ELIMINATOR

*New product of the research laboratory is this portable machine that takes odors out of the polluted air of a room. Using the principle of the ordinary gas mask, highly activated charcoal snatches out vapors, smoke and fumes—repurifies the atmosphere.*

## CHEMISTRY

## Substitutes Help Chemists Dodge War-Scarce Items

Among Imported Items That Are Hard to Get Are Montan Wax and Ozokerite, Beeswax and All Vegetable Gums

By EDWARD ROSENDAHL

Chemist, Glyco Products Co.

ALTHOUGH the chemical industry of the United States has made tremendous strides in the last twenty years, we still depend on other countries for a number of basic products. In times of peace this dependence does not loom very large in the minds of manufacturers, but when, as at present, other countries are engaged in less peaceful pursuits and shipments are meeting with all kinds of delays, the question of replacing these products by materials produced in the United States from American raw materials, immediately becomes of utmost importance.

Among the major items imported from abroad we find that certain waxes have become scarce and very high in

price. Thus, Montan Wax and Ozokerite, both of which come from Germany and neighboring countries, are, to all intents and purposes, unobtainable in this country today.

Montan Wax is used in considerable quantities in polishing preparations, paints, varnishes, roofing compositions, shoe creams, phonograph records, insulating compounds and paper sizing.

Ozokerite goes into the making of certain kinds of cosmetics, pharmaceutical ointments, wax crayons, waxed paper, textile sizings and in lithography.

Beeswax, a considerable amount of which comes from Africa, Chile and Brazil, is another wax becoming more and more expensive. Beeswax, of course, has tremendous applications in the manufacture of all types of polishes, all kinds of cosmetic preparations, chewing gum,

many food products, adhesive preparations and is used in the sizing and finishing of textiles.

A glance at the current market quotations for chemical raw materials will show the words "No Prices" or "Nominal" after most waxes other than those produced in this country. Carnauba Wax (obtained from Brazil) has doubled in price in the last two months, and most of the grades are off the market. This wax is used mostly in the polish industries as well as in the making of recording disk waxes, dental waxes for impressions, cosmetics, electrical insulation and in textiles.

Vegetable gums of all types come chiefly from the Near and Far East. Transfer of boats for war purposes means delayed shipments. The same applies to shellac, which comes mostly from India.

### World War Lessons

Learning lessons from the last war American chemists have been developing numerous synthetic products to replace, at least in many of their physical properties, natural materials imported from abroad. In some cases, notably in the resins and plastics field, the synthetics have proved so superior that they have replaced permanently the formerly-used natural materials.

When glycerine was almost unobtainable at almost any price a few years ago, glycerine substitutes helped cure the headaches of many a manufacturer. So good was the "cure" that after glycerine returned to normal the substitutes in many cases were retained.

Glycerine furnishes an excellent example of the fact that a substitute does not have, and need not have in many instances, the exact chemical and physical properties of a natural material.

The maker of printing press rollers uses glycerine, but he has no interest in the sweetness or color of the glycerine.

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