

Thousands of Drugs Await Discovery

Pharmacology

New Uses Also Predicted At Decennial Convention

NEVER in the history of the world have the possibilities of adding to the list of valuable drugs been so great as at the present time, Dr. Reid Hunt, president of the United States Pharmacopoeial Convention, declared at the convention's decennial meeting at Washington.

We may yet get more drugs from the plant and animal kingdoms. There is no limit to the number that the chemist and the pharmacologist may synthesize in their laboratories. But even more important is the possibility that new and important uses may be found for drugs which we already have, Dr. Hunt said. He is professor of pharmacology at Harvard Medical School.

Some of the saddest pages in the history of mankind have written on them the failure of physicians to see the possibilities for treating disease with well-known chemicals. Ether was known to doctors and chemists



Dr. Lyman Spaulding, founder of the U. S. Pharmacopoeia

for nearly 300 years before it was used as an anesthetic, Dr. Hunt pointed out. Another drug, amyl nitrite, a few drops of which relieves the frightful agony of one form of

heart disease, was well known to chemists for 23 years before it was used to treat this condition. The same delayed application was repeated in the case of other anesthetics and many other drugs. They were well-known chemically for years before anyone tried them in the treatment of disease and for the relief of pain. Today, said Dr. Hunt, "relief may be obtained anywhere in the world for a few cents, which fifty years ago was beyond the reach of any potentate or Croesus."

Research is needed to investigate the medical possibilities of the 258,000 organic compounds which chemists have already carefully described chemically and physically, Dr. Hunt said. New compounds are being added to the list at the rate of about twenty a day. Dr. Hunt declared America's facilities for studying the medical applications of these new compounds are very inadequate compared with research activity in Germany and other European countries.

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Drug Standardization May Save Babies

Pharmacology

A NEW chemical method of standardizing a drug widely used in childbirth may be the means of saving countless lives of mothers and babies. The drug is ergot. The new method of standardizing it, which is a chemical, colorimetric method, was devised by Dr. M. I. Smith of the U. S. Hygienic Laboratory, who reported it to the meeting of the American Pharmaceutical Association at Washington.

The method requires much less experience, less time, less trouble and is more accurate than the physiological method which is given as the standard by the present U. S. Pharmacopoeia, Dr. Smith said.

The Pharmacopoeia, which is the legal standard for drugs and medicines, will be revised this year.

Dr. Smith believes that a biological method of standardizing ergot, developed by Professor Clark of the University of Edinburgh, is better than that given in the U. S. Pharmacopoeia. His new chemical method agrees well with this English one.

Ergot is a complex drug containing many chemical substances,

among them alkaloids. It is the alkaloids which are important, but not all of them are physiologically active. Chemical methods of determining the alkaloids were described many years ago, but Dr. Smith's method is the first to determine quantitatively the physiologically active alkaloids of ergot.

Some 40 samples of fluid extract of ergot were examined by his method, of which ten were commercial extracts ready for the market. These varied in potency as much as 500 per cent., the strongest being five times as strong as the weakest, Dr. Smith reported.

This difference may be very serious when the drug is given to a mother in childbirth. The dose given is for ergot of a standard strength but the physician has no way of telling whether the ergot is standard or not and must rely on the label on the container.

Manufacturers cannot come up to the U. S. Pharmacopoeia standards chiefly because they have not a good method of standardizing the drug, Dr. Smith commented. He believes

his method gives them the means of producing uniformly standard ergot.

New Anesthetic

STUDIES of a new local anesthetic, nupercain, were reported by W. R. Bond and N. Bloom. The new anesthetic was introduced by the Society of Chemical Industry at Basle, Switzerland. It is claimed to be better than cocaine for local use. Pharmacists Bond and Bloom found that it is five times as poisonous as cocaine, but can be used in one-tenth the concentration. It is most efficient as an anesthetic when applied to the cornea of the eyeball.

Corrosive

STUDIES on how iodine corrodes metals were reported by B. L. Meredith and W. G. Christiansen of Brooklyn, N. Y.

Several alloys of metals that are resistant to most chemicals were experimented on. Both molten and vaporous iodine were used. All the metals were corroded by iodine, the investigators found.

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