dren's Emergency Fund a panel of experts to advise the Fund on the technical aspects of a program upon which the Fund is embarking to vaccinate an estimated 15,000,000 children in Europe. The Commission has, as well, accepted the responsibility for conducting studies to determine the effect on tuberculosis rates of this vast vaccination program."

Science News Letter, April 17, 1948

MEDICINE

Nose Remedy Tests Urged

Cites examples of damage to lining of nose and sinuses and brain in warning against premature use of new medicines.

➤ PATIENTS pay through the nose, literally, for sinus and other nose medicines when these are used without first being tested in the noses of animals, Dr. Noah D. Fabricant of Chicago charged at the meeting in Atlantic City of the American Laryngological, Rhinological and Otological Society.

"Knowledge of undesirable caustic reactions (of such drugs) sometimes comes initially via the patient's nose," he declared. "If the truth be stated bluntly, this is literally paying through the nose."

Two cases of chemical meningitis following irrigation of the nasal sinuses with tyrothricin, one of the penicillin-like drugs, have recently been reported. The disease process was recreated in animal experiments, "an example of closing the garage doors after the automobile had been stolen," Dr. Fabricant commented.

Years after nose and throat specialists had "liquidated" mercurochrome by the trial and error method on patients, it was discovered that when the chemical is put in the noses of experimental animals it passes, in much less than two hours, through the linings of the nose and sinuses, the bony walls of the frontal sinus and even through the covering of the brain to stain the cortex of the brain itself.

"Wild exaggerations" were made a few years ago for a highly alkaline solution of a sulfa drug, sodium sulfathiazole, for local treatment of chronic sinus trouble. Then it was discovered that the medicine was extremely caustic to the lining of the nose and sinuses and damaging to the little hair-like processes inside.

Besides making sure the drugs they use have been thoroughly tested. Dr. Fabricant reminded nose and throat specialists that in choosing a medicine for their patients they need to consider the season of the year. The differing degrees of virulence of germs and the possibility of bacteria having undergone metamorphosis must be taken into account. The pattern of nose and sinus infections changes from year to year, so the medicine that was helpful one year may not remedy sinus infection in the same patient the next year.

Penicillin and sulfa drugs used in the nose for the most part do not help in long-standing chronic sinus infections. This, Dr. Fabricant explained, is because the linings of nose and sinuses have become so thickened and tough the drugs cannot get through to hit the germs. In some cases of acute infection he considers penicillin and other antibiotics are "of minor help."

A "crying need" exists for new medicines to shrink the blood vessels and swollen tissues of stuffy noses in colds and sinus infections. If they can be produced in combination with one of the newer penicillin-like drugs, so much the better. But Dr. Fabricant thinks existing nose medicines combining sulfa drugs or penicillin with a chemical to shrink the swollen tissues bring relief primarily because of the shrinking chemical. The sulfa drug or antibiotic addition serves actually, in his opinion, as "a talking point."

Penicillin or other medicated throat lozenges are of doubtful value. The explanation Dr. Fabricant gave is that the germ-stopping chemicals do not get far enough back into the throat in sufficient quantity, and when the chemicals do reach the tonsils, they stay on the surface without getting at the germs within the tonsils.

Giving anti-germ chemicals by another method, insufflation, however, seems to help in some cases of sore throats. But no matter how the drugs are applied, he pointed out, so much will be washed away from tonsils and throat by the saliva that an effective concentration cannot be kept for long.

Use of sodium bicarbonate and other alkalies for prevention or treatment of colds has become a part of American folklore, but is of no value. The normal human throat is either on the acid side most of the time or slightly alkaline in limited instances, Dr. Fabricant's studies show. Consequently trying to "alkalinize" it is trying to reverse the normal state instead of trying to get back to it.

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CHEMISTRY

Viscose Rayon Does Not Absorb Dye Uniformly

➤ VISCOSE rayon, the kind used in most rayon dresses and shirts, does not absorb dye at a uniform rate. The core of the fibers usually takes up the dye more quickly and loses it more easily than the skin.

In a cross-section of ordinary tire-cord yarn stained with Solophenyl Fast Blue Green BL dye the core is completely colored, but dye has not yet penetrated the skin.

But after dye such as Victoria Blue, used in preparing the rayon fibers, had penetrated both the core and the skin,

***RAYON DYE PROCESS**—These are cross-sections of rayon fibers showing, on the left, that the core absorbs the dye before the skin, and, on the right, that dye washes out of the core more quickly than from the skin.*