

the wave of synthetic pharmaceuticals, and WHO must recognize this fact," he declares.

"Great confusion is also arising among the world's doctors from the thousands of names for the same drugs and from the lack of international agreement on labeling and the declaration of side effects."

He and some others are seeking, unsuccessfully so far, to enlarge the WHO definition of "quality control" to go beyond "identity, purity, potency, sterility and stability" and "conformity with labels," to include dependence-producing tendencies, side effects and sheer efficacy. He feels that obsolete drugs should be removed from world commerce.

David Alan Ehrlich

## War on Insects

Very few Americans have ever heard of filariasis or hemorrhagic fever, though many may remember the days when malaria and yellow fever were a distinct menace.

But although those diseases no longer threaten the developed nations of the world, they still kill or cripple thousands of citizens of Asian and African countries each year.

And, with the increased U.S. effort in Vietnam, malaria is once again an immediate menace to American lives.

**The key** to control of each of these diseases, and others of a similar nature, officials of the World Health Organization feel, is control of the insects that spread them.

Up to now, control of insect populations has meant spraying them and their breeding places with potent insecticides such as DDT and Dieldrin—chemicals to which the insects are becoming increasingly resistant. As the insects become poison-proof, the quantities of insecticide in the environment are building up to levels potentially dangerous to man.

Last week, 18 scientists met at the WHO regional office in Washington to discuss what looks like the sure path to victory: turning the insects against themselves.

Two methods of doing this, one still untried in the field, are being considered. Both involve the release of millions of modified male insects to mate with the wild insects, producing either no offspring or almost entirely male offspring.

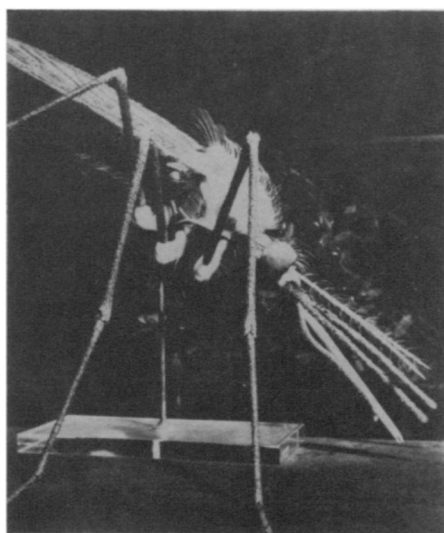
The best known of these techniques takes its cue from the eradication from the U.S. of the screwworm fly and uses laboratory-raised male insects—mosquitoes or flies—that have been sterilized by

radiation or chemicals (SN: 3/11). These, released in numbers greater than the wild population of males in an area, mate with the wild females.

Eggs from their unions produce no young. If enough sterilized males are released, entire insect populations can be wiped out in a few weeks.

**A variation** on this method has just been tested with excellent results in a small town 16 miles from Rangoon, Burma, according to Dr. H. Laven of Johannes Gutenberg University, Mainz, West Germany.

There, by introducing a specially bred strain of *Culex fatigans* mosquitoes, the WHO scientists managed to wipe out the local population of this one mosquito species, the carrier of filariasis. The project took only 12 weeks.



WHO

The enemy; an *Anopheles* mosquito.

The traitor mosquitoes they bred were of a California strain of *fatigans* that would readily mate with the mosquitoes in Burma but were genetically incompatible enough that the eggs laid would never grow. There are enough such different strains that an incompatible strain can be bred to use anywhere in the world in elimination of the mosquito species, Dr. Laven says.

**Perhaps the most** promising technique for the future, if it works out in field tests, is one developed at the University of Notre Dame, Ind., by Dr. George Craig.

There, mosquitoes were selectively bred with genetic traits that insure that 95 percent of their offspring will be male. And, Dr. Craig points out, each of these male offspring is capable of transmitting the trait so that their offspring will in turn be 95 percent male.

The advantage, he observes, is that

the release of a handful of such insects would soon produce an almost exclusively male, and therefore doomed, population.

## Patent Treaty

The Patent Office, faced with a flood of foreign and domestic applications, is taking vigorous steps to keep from being swamped.

**The latest move** came last week with the disclosure of a proposed treaty calling for a standard international patent application form and elimination of duplicate searches and examinations.

The treaty was drawn up by six member nations of the United International Bureau for the Protection of Intellectual Property (BIRPI), at the suggestion of the United States.

Patent Office officials are enthusiastic about the treaty's prospects because, they say, everybody gains from it. The countries that drew up the treaty include Russia, Germany, France, Japan, Britain and the United States.

Key item in the proposed treaty would be the standard form, acceptable in all signatory countries. Presently, requirements for applications vary widely from country to country, including such details as size of illustrations and width of margins.

Once the application was received, a country qualified to carry out a search and examination of the patent would do so. The results of the investigation, along with a certificate of patentability, would be forwarded to all the countries where the inventor wished to receive a patent.

Individual countries would then decide, according to their own requirements, whether to issue a patent. This process would be unchanged from the present system. But instead of starting cold with the bare patent application, the other countries would have the benefit of the research carried out under the international application.

Patent Office representatives, stressing that the treaty is open to revision, are planning a series of talks with U.S. businessmen. Armed with the opinions and suggestions coming from these talks, the U.S. will return to Geneva in the fall to help write a final treaty.

**Industry is likely** to favor the treaty, though it may have reservations about some of its long range implications.

U.S. companies annually file foreign patent applications for 25,000 inventions a year in an average of five countries each. Likewise, about a quarter of the 90,000 patents applied for in this country annually are duplicates of foreign applications. Anything that will thin down the jungle of paperwork and speed up the process of getting