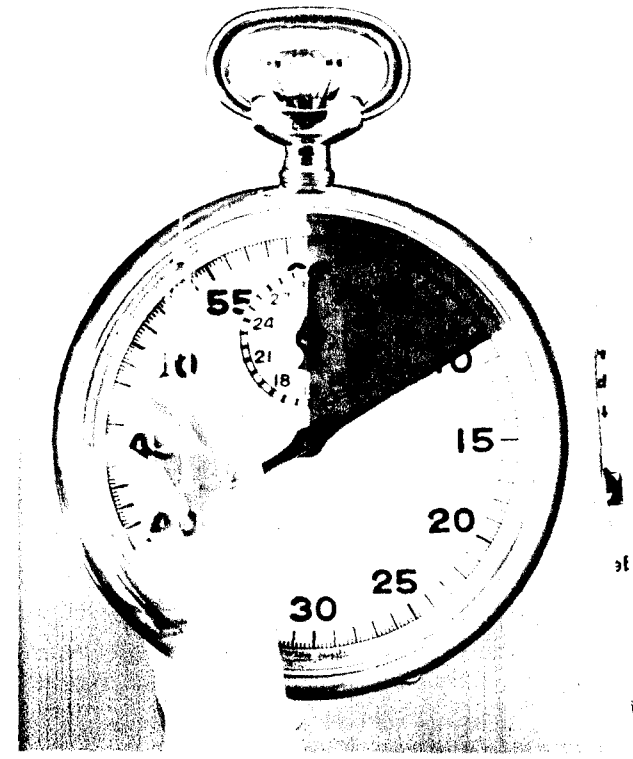
Despite early wonder drugs and an unprecedented campaign to alert the public, syphilis remains a menace. In the U.S. alone, there are 100,000 new cases every year. But now a new drug promises a complete cure with . . .



A 10-SECOND SHOT

By J. D. RATCLIFF

IS SYPHILIS wiped out as a major disease—killed by publicity? Many people think so. A few years ago, newspapers blazoned and radios blared the message that syphilis was curable; that, given the will, we could stamp it out once and for all. State and local treasuries and the United States Congress appropriated millions to support thousands of clinics. Women's Clubs marched to get blood tests. The campaign boiled—then simmered, suggesting that the disease was no longer an important problem.

The syphilis microbe apparently wasn't alert to these suggestions of its doom. More than 2,000,000 people in this country still have the disease. Almost 100,000 new cases occur every year. There are still 40,000 insane-asylum inmates crazed by syphilis; 40,000 syphilitic blind still feel their way through life with white canes.

The great campaign of a few years ago, one of the most aggressive ever launched against a disease, brought to light tens of thousands of cases, cured thousands, resulted in increased awareness of the disease and its symptoms. But as an all-out drive it failed.

There were two reasons: first, untold thousands of people who had the disease and didn't know it were never ferreted out, despite the intensive publicity. Second, additional thousands knew they were afflicted by syphilis—but refused to undergo the treatment, which required repeated injections and, sometimes, hospitalization.

Today there is important news: the development of a new medicine which nine times out of ten seems able to cure syphilis in its early stage—the most dangerous, most communicable stage—with a single injection. The victim need not stay in the hospital. Complications are virtually nonexistent, occurring in only one of every 300 patients. One shot in the hip—and, presto, syphilis is gone.

The new treatment involves not a new drug, but a variation on what has become a medical mainstay, penicillin. The variation, called DBED penicillin or benzathine penicillin G, is valuable in treating a number of ailments for which penicillin has proved effective but difficult to use.

Besides promising remarkable results as a syphilis cure, DBED provides excellent protection against rheumatic fever, the heartbreak disease that has been taking more than 20,000 lives a year, mostly lives of the young. It guards surgical patients against the threat of infection, and wards off the infectious complications that sometimes follow dental surgery. It is useful in treating pneumonia, scarlet fever, gonorrhea and a number of other illnesses. But it is most dramatic as a weapon against syphilis.

Syphilis first swept Europe, wildfire fashion, in the 1490s—believed by many to have been carried back from the New World by Columbus' sailors. The first faltering attempts at treatment were almost as dangerous as the disease itself. Some reports tell how "greasers of the pox" smeared victims with lard and mercury, then placed them tier on tier in bake ovens for heat treatments. In the hands of some doctors three fourths of

PHOTOGRAPH FOR COLLIER'S BY FREDRIC VARADY

the patients died, either from mercury poisoning or from too much heat.

Mercury remained the standard treatment until 1910. That year, after testing 605 arsenic compounds, German researcher Paul Ehrlich finally reported success with No. 606 —salvarsan, his "magic bullet" against the spiral microbe of syphilis.

Actually, salvarsan was an effective drug only by comparison with the previous treatment. Used with heavy metals—mostly mercury and bismuth—it was highly toxic. Some patients suffered brain damage; some were severely poisoned, some died. To hope for a cure, patients had to submit to painful, weekly shots for periods ranging from 18 months to four years. Only a handful of those who started treatment ever finished. The hardy microbe of syphilis was inconvenienced hardly at all.

A New Enemy for an Old Microbe

Treatment was improved in various ways in the next generation, but no radical advances were made until 1943, when Dr. John Mahoney, then of the U.S. Public Health Service, now Director of the Bureau of Laboratories of New York City's Department of Health, found that penicillin would destroy the syphilis microbe. That was a milestone.

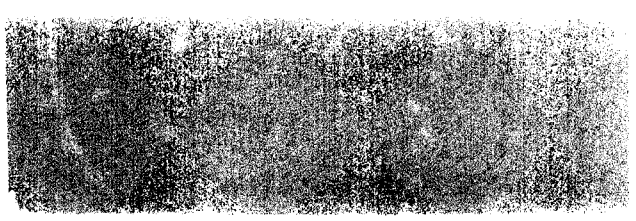
Yet, great as the discovery was, it wasn't enough; the penicillin then available was far from the ideal weapon. To be truly effective against syphilis, penicillin must remain in the blood until all the spirochetes—the syphilis microbes—are destroyed. Otherwise many of the microorganisms live on and reproduce, and the disease continues to progress. The great early drawback of penicillin was that each dose stayed in the body only a short time, long enough to kill only some of the spirochetes. New shots had to be administered every few hours, round-the-clock, for a week or more. Most victims of the disease wouldn't hold still that long. Those who did felt like pincushions. Many sufferers couldn't afford the hospital bills or couldn't get away from their jobs.

As a result, syphilis rates didn't nosedive with the advent of penicillin as everyone had predicted they would. They began to taper off gradually, far too gradually.

It became clear to all researchers that it wasn't so much the haymaker smash that was wanted as the slow attrition of persistent punching: a long-lasting penicillin, one the body wouldn't burn up every 180 minutes—a penicillin that would trickle gradually into the blood, and be on hand for a long time to catch microbes unawares.

The first long-lasting penicillin was developed in 1944—penicillin mixed with peanut oil and beeswax. Less soluble in body fluids than straight penicillin, it fed into the blood for 24 hours. But there were drawbacks. A painful welt was sometimes left at the site of injection, and the welts often abscessed.

In 1948, researchers found that penicillin combined with procaine—the medical name for the novocain your dentist uses—lasted a little longer, and produced less pain and fewer complications. A further improvement was penicillin combined with aluminum



A year after its first mass test, DBED had cur

monostearate (PAM)—a relative of chemicals used to waterproof fabrics. In effect, PAM put a raincoat on penicillin, which reduced solubility and slowed absorption.

These long-lasting penicillins remained effective as long as three or four days. They were tried as one-shot cures for early syphilis and worked in about three out of ten cases. That was pretty good—but it was not good enough. It meant that most patients still required multiple treatment, and doctors continued having trouble getting syphilis sufferers to come back for more shots.

Misguided Syphilis Victims

The sore that is the earliest symptom of syphilis disappears after a while, even without treatment, convincing many victims that they aren't really sick after all. They may feel fine for years—before blindness or insanity sets in. What was needed, therefore, was a penicillin that would really cure in a single injection.

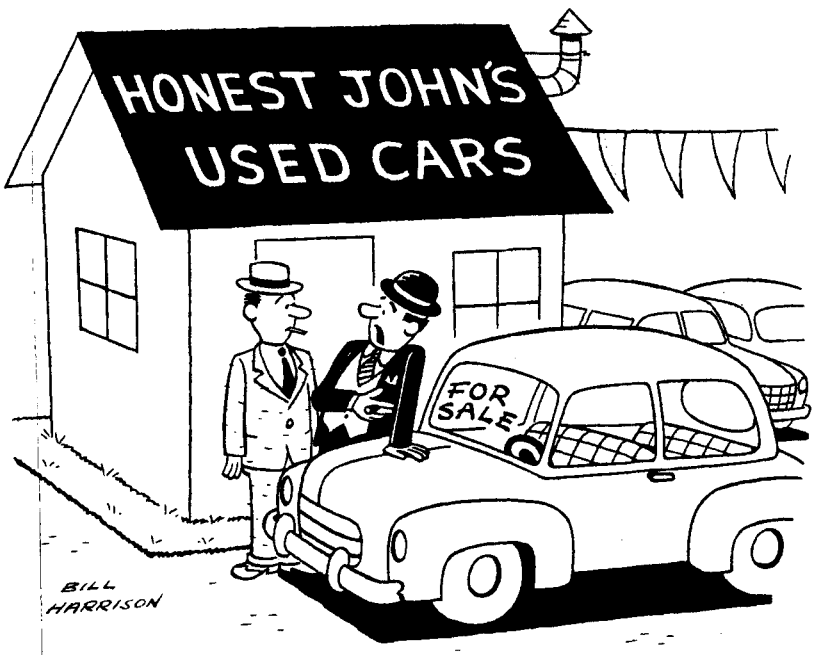
Dozens of pharmaceutical houses set research teams to work. Millions of dollars were spent on the search for a longer-lasting, less soluble penicillin—not only as a weapon against syphilis, but for the treatment of other diseases as well.

It was a research team under Dr. Joseph Seifter, head of the research division of Wyeth Laboratories of Philadelphia, that finally licked the problem. One of Seifter's associates, Dr. William Bruce, conducting analytical laboratory studies, experimented with a mixture consisting of two molecules of penicillin hooked to a molecule of an antihistamine which the lab had previously discarded as valueless. Some time later, he reported to Seifter that tests made by him and his assistant, Lester L. Szabo, indicated the compound was almost insoluble—perhaps 40 times longer-lasting than PAM.

Seifter promptly started testing the new compound, DBED, on animals. At the end of a week, there was still enough penicillin in the blood of the test animals to kill microbes. Two weeks, three weeks, and it was still there. After four weeks, the drug had grown weaker, but it was still strong enough to be remarkably effective against microbes. For all practical purposes, one shot of the drug lasted a month.

When preliminary tests on humans showed equally good results, Wyeth's clinical director, Dr. Edward F. Roberts, passed along cautious word of the new compound to Dr. Theodore J. Bauer, then chief of the U.S. Public Health Service's venereal disease division. He didn't want to be too optimistic, Roberts said, but DBED (or, as Wyeth Laboratories calls it, Bicillin) seemed to keep the body supplied with penicillin over an extended period. There was just a chance that this might be the real magic bullet that Ehrlich had failed to find.

Bauer assigned Dr. Clarence A. Smith of the Public Health Service to the job of testing the new treatment. Smith started trials in several cities—Chicago; Durham, North Carolina; and New Orleans among them. He laid out his schedule. A selected group of patients infected with early syphilis would get a single, powerful shot of



"Now, this car may look okay, but it's a real lemon. Speedometer shows only 20,000 miles but it must've been driven at least . . ."

COLLIER'S — BILL HARRISON

DBED—2,500,000 units. That would end treatment; there would be no additional shots. It was a rugged test, but Smith knew it was the quickest way to find out whether DBED was a real jump forward or just another minor advance. There were 125 patients in the first study. Five of them were pregnant women: syphilitic mothers often pass on the disease to their unborn children.

Within eight to 15 hours after the first treatment, microscopic examinations showed that the syphilis microbes had disappeared from the lesions of all the patients. Actually, it wasn't a striking accomplishment; ordinary penicillin will do as much. The problem was to get at, and kill, the microbes hiding in the nooks and crannies of the body.

There was another difficulty too. All the tests for syphilis—the Kline, Wassermann, Kahn and others—have one tantalizing shortcoming in common. Debris left behind by dead microbes continues to give positive reactions. The tests will say a patient has syphilis when the disease actually may have been gone for months. But eventually, if there is a cure, the tests will shift over to negative.

Smith and his Public Health Service team repeatedly tested the patients. At the end of the second month only one third of the group had switched to negative—not a very impressive score. But at the end of five months 60 per cent were negative. By ten months 80 per cent were well. By the twelfth month the score stood at 94 per cent—and there was evidence that a few of the remaining 6 per cent had reinfected themselves with syphilis while the test was under way.

One shot of DBED—a needle plunge that took about ten seconds—had cured syphilis in more than 19 out of 20 of the patients. The pregnant women in the study all delivered normal, syphilis-free babies. Reactions? Ill effects? A few patients got painful spots at the site of injection; a few had hives for a day or so. Studies on a still larger group of patients indicate that only a negligible number suffer any really serious reactions. And these reactions, to be expected occasionally in any antibiotic therapy, clear up promptly with good medical treatment.

Medical men haven't gone overboard on DBED yet. The work is being checked in a dozen places: by state health departments in Georgia, Arkansas, North Carolina and others. But the technical journal Antibiotics and Chemotherapy feels enough work has been done to estimate the value of DBED. "It is," the journal editorializes, "one of the most important milestones in antibiotic therapy."

Awaiting Results of More Tests

If, as expected, DBED stands up under repeated testing, half the fight against syphilis will be won. From now on, it should be necessary to get patients into clinics only once; no wheedling, no pleading with them to return for additional treatments. One shot—a teaspoonful of milky fluid injected in the hip muscle—will do the job.

But the other half of the battle remains: now doctors must find the people who have the disease and don't know it. It is unfortunate that Congress chose this year to lop venereal-disease-control appropriations in half—just when we have the opportunity to be rid of syphilis once and for all.

DBED's success with syphilis is being matched in the treatment of rheumatic fever, one of the most enigmatic of all diseases. No one knows for sure what causes it, how it spreads or why it seems to run in families. But doctors are sadly aware of the end results.

Rheumatic fever is responsible for most heart disease that occurs before the age of thirty. The disease scars heart muscles and frequently causes obstruction of valves. Repeated at-

icks may bring early death. Un- antibiotics were discovered, most ctims died in their late twenties or rly thirties.

Medical detective work has un- vered one striking fact about rheu- atic fever. Attacks almost always cur a few weeks after streptococcus fections—strep sore throats, scarlet ver, infected ears. *Apparently*—the phasis is important—something left hind by the strep microbes does the mage. Maybe it's a toxin, maybe an ergy producer, maybe something e. No one knows.

Since strep infections and rheumatic ver go together, doctors have been ing to break the chain of disaster by eventing strep infections. The only workable way to guard against strep- ococcus is to keep rheumatic chil- dren dosed with sulfa or penicillin. Generally, they are required to take pills one or two times a day every day until they reach the safe years of young adulthood, when susceptibility to rheu- matic fever diminishes.

The difficulties of such constant pill- taking are apparent. Parents forget or children resist. Cost is also an item; many families cannot afford the thou- ands of penicillin pills needed to protect throughout childhood. DBED promised to solve both problems at once.

About one year ago, Drs. Gene Stol- erman, Jerome H. Rusoff and Ilse Hirschfeld of the New York Univer- sity-Bellevue Medical Center launched a trial at the Irvington House cardiac clinic in New York City. There were 133 children in the trial, all of whom had suffered one or more attacks of the disease, and could reasonably expect additional attacks.

The youngsters were put on a shot- a-month schedule, returning home after each dose. Although this out- patient treatment left them exposed to infection, just as other children are, the results after a year, Dr. Stollerman reported at a recent antibiotics sympo- sium, show that DBED provided al- most perfect protection. Not one child in the group had a recurrence of rheu- matic fever. A few got sore backsides from the shots; one got itchy hives that disappeared within 72 hours. Other- wise there were no complications.

Patients Object to Daily Shots

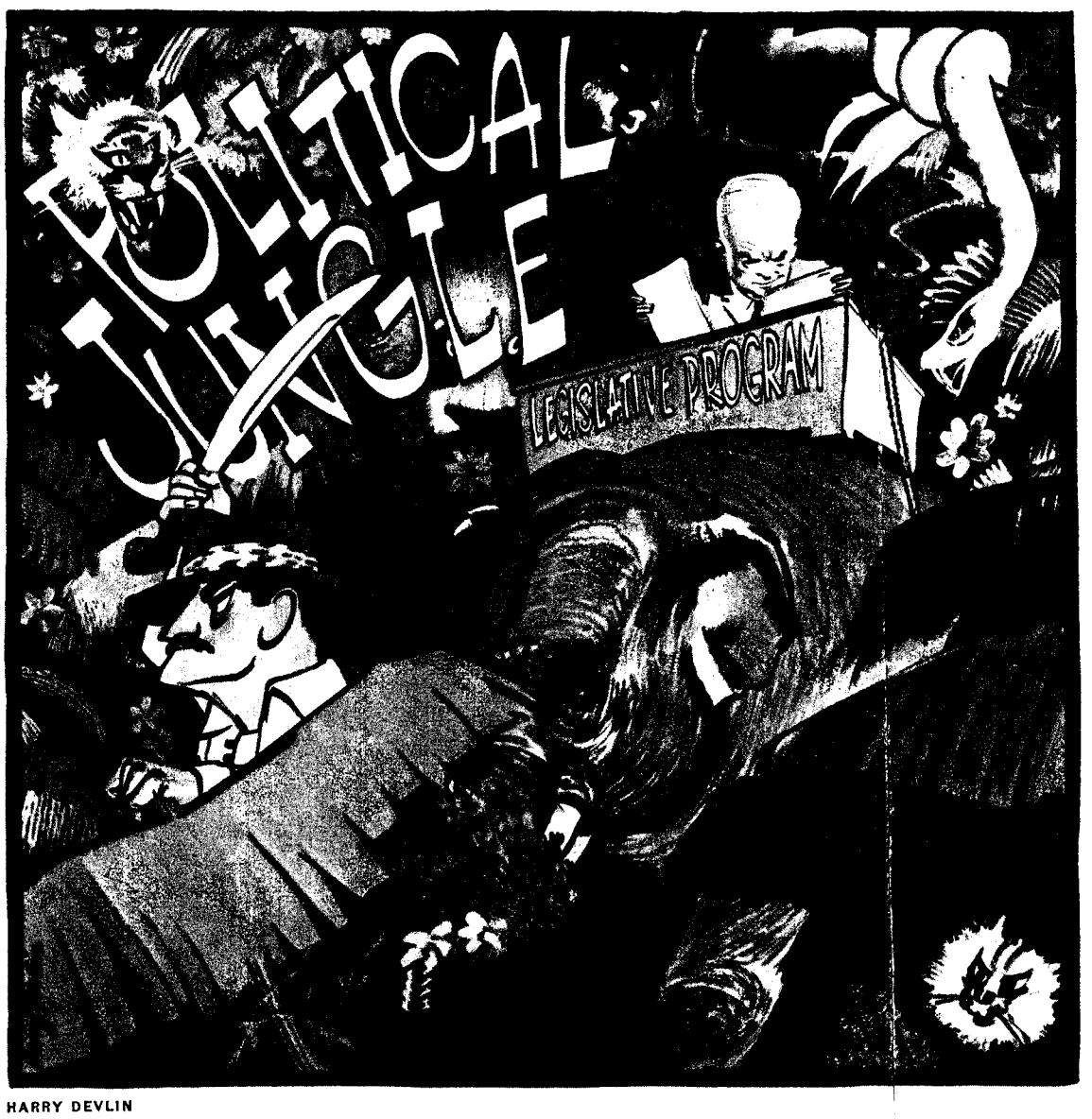
Surgical patients in most hospitals get daily shots of penicillin as protec- tion from infection. Patients object to this constant sticking when they aren't feeling well anyway. DBED seems to solve the problem—one shot gives all the protection needed for the entire period of hospitalization.

Infection is the great bugaboo in dental surgery, because the mouth har- bors more germs than almost any other part of the body. Whenever underlying structures of the mouth are exposed—in tooth extractions, patching together broken jaws, removing impacted mo- lars—some infection is almost inevi- table. To control it, patients have had to undergo repeated penicillin injec- tions. Mightn't a shot of DBED, alone or in combination with some faster- acting penicillin, give all the protection needed? Drs. Irving G. Nathanson, George E. Morin and Stephen P. Mal- let of Boston City Hospital tested the theory on 150 patients—and concluded that in the big majority of cases the answer was yes.

DBED has achieved a similarly glamorous record with gonorrhea, var- ious infections and children's scarlet fever and pneumonia—all of them call- ing for a long-range assault on mi- crobes. It has been suggested that the discovery of DBED will rank in im- portance with the discovery of pen- icillin itself.

From present evidence the sugges- tion is not unduly optimistic.

COLLIER'S "I'm just checking on when was the last time you took me out to dinner!" DON TOBIN



HARRY DEVLIN

Ike Needs a Politician

IT IS NO SECRET that President Eisenhower's legislative recommendations—his domestic program in particular—face some rough going in the present session of Congress. Commenting on the outlook, a friend of ours, wise in the ways of Washington, remarked, "Ike needs a politician." Quite likely he does.

The President has gained a lot of political wisdom since he took office. He has assembled an able staff of administrative aides. It is no disparagement of them to suggest that Mr. Eisenhower could still use on his staff a man who knows politics from long, firsthand experience.

Contrary to a widely held belief, it is no disgrace to be a politician. Earnest and intelligent citizens suggest from time to time that if we could only get politics out of government, all would be well. These same citizens may likely have written to their Senator or Representative at sometime or other to plead what seemed to them a worthy cause. And they would expect recognition, consideration and action. If they were ignored, the next chance they got they would probably vote against the officeholder who ignored them.

This probability creates a problem that every legislator faces. The problem includes the frequent struggle between being a representative and being an individual, and the difficulty of trying to take a simultaneous back-home and world-wide view of a situation. And if a man, understanding this problem, can help to compromise the conflict which may exist in hundreds of Congressional minds and produce a sound piece of legislation, he is not only a good politician but a valuable statesman.

You can no more take politics out of government than you can take the motor out of an automobile and expect performance. Politics, in the American government, is the technique of getting results. And the failure to "play politics" may sometimes have a profound historical effect. For example, Woodrow Wilson chose to ignore the Republican politicians completely when he assembled the American delegation which he took with him to the Versailles peace conference after World War I. There were influential Republicans, including ex-President Taft, who favored the League of Nations as much as Wilson did, and who should have been present to speak for their party. But they were not there. And because they were not, Wilson came home to suffer the defeat of his life's greatest aim.

How different the course of world events might have been if Wilson had not made this stubborn political blunder must remain a matter of speculation. But the incident does suggest that, while a man may be a great politician without being a great President, he cannot be a great President unless he is an astute politician, or else is able and willing to secure astute political advice which will help to translate his leadership from words to actions.

Because we believe that President Eisenhower's proposed program is, in general, sound and beneficial, and because it obviously will encounter some difficulties of enactment, we hope that he will be able to avail himself of the help of a wise and experienced politician—a specialist in the art of getting things done.

Of Judges and Grudges

IN THE CITY OF NORWALK, Connecticut, the local Veterans of Foreign Wars post appointed itself the arbiter and guardian of patriotism. Members kept track of what their neighbors said and read, and if they were "suspicious" they were asked to convey their suspicions to a secret and anonymous screening committee. This committee, at its discretion, might forward information to the FBI.

The post commander in Norwalk told Scripps-Howard writer Andrew Tully, "We're not condemning anybody. That's the FBI's job. We're only suspecting. A member doesn't have to prove a guy is subversive, only that he acts it." And to a New York Times reporter, the post commander made what seems to us an almost incredible statement: "It doesn't mean that every name turned in is of a Communist or subversive person."

If this were an isolated instance it would still be a matter of concern. But the state commander of the Connecticut VFW told The New York Times that "we have more or less been alerted by the national organization to keep our community active and wise . . . it is the sort of thing that's being done in other towns across the country."

Granting that the VFW may be inspired by the most admirable intentions, we still should like to know what special wisdom inheres in an organization of veterans which prompts them to delegate to themselves the task of keeping a community of 50,000 "active and wise." We also are curious to know the reasons why the Norwalk VFWs were investigating their neighbors. If not for suspected Communism or subversion, then for what? A man could be guilty of nothing more than nonconformity with his veteran-neighbor's way of thinking. His conscience might well be clear, but that would not remove the possibility of his having an FBI dossier against his name.

It has been argued that a citizen has a duty to report to the police a crime that he has seen committed. It has also been argued that a citizen who knows someone whose talk and actions mark him unmistakably as a Communist has a duty to report that person to the FBI. But neither argument can justify the formation of a vigilante group operating under a set of rules as vague as the above quotations would indicate.

It is a curious phenomenon of mass psychology that people often tend to imitate the thoughts and actions of those whom they hate and fear the most. This may well account for the tendency to copy the Soviet techniques of secret spying and informing which are found today among some of the most militant anti-Communists.

We believe that the FBI, the grand jury system and other responsible forces of government are capable of handling the menace of Communist conspiracy and espionage. But the FBI has too big and important a job to do to be plagued with a flood of amorphous accusations by self-appointed guardians of self-defined Americanism against their neighbors in Norwalk and "other towns across the country."