



WHY SHOULDN'T YOU **SMOKE?**

Eric Northrup, and gives surprising, scientific reasons why

ver since a German scientist named Brosch re-D ported in 1900 that skin tumors could be induced by painting tobacco "juice" on the backs of guinea pigs, medical investigators have tried by a variety of animal experiments to establish a link between smoking and cancer.

With the marked increase of recorded fatal lung cancer during the past thirty years, these experiments have multiplied. Thousands of mice, rats, rabbits, guinea pigs, hamsters and other animals have been injected, fed, smeared and otherwise exposed to the condensates of cigarette smoke and other tobacco derivatives.

The most publicized of such experiments was reported to a television audience of more than 20,000,000 Americans witnessing a symposium on the question of smoking in relation to lung cancer. Drs. Ernest Wynder and Evarts Graham, cancer investigators, demonstrated a small vial containing a sticky black fluid, with the words: "This bottle contains the amount of tar to which the average heavy smoker is exposed over a given year's period of time." The audience was then shown groups of mice whose backs had developed sores after weeks of painting with cigarette tars, and finally, one mouse that had developed a large, ugly skin cancer.

According to Drs. Wynder and Graham, their results were achieved as follows: Tobacco tar was obtained by condensing the smoke of thousands of cigarettes in a mechanical smoking device. This machine was de-

Is there a proven cause-and-effect relationship between cigarette smoking and lung cancer? NO, says authority

signed to approximate the normal act of smoking. It "inhaled" a two-second puff every eighteen secondseach drag equaling in volume that of the average smoker-and maintained the burning-cigarette temperature encountered in human smoking. The smoke was condensed and accumulated, and the gummy condensate was then thinned down with acetone and painted three times weekly on the shaved backs of eighty-one mice of an inbred strain known as CAF₁.

After an average of eighteen months of skin applications, estimated by Dr. Graham to be the equivalent of thirty to fifty years of human cigarette consumption, forty-four per cent of the eighty-one mice developed skin cancer. It was noted that twenty-five of these were females and eleven were males.

On the basis of their findings, Drs. Wynder and Graham maintain that "the evidence very strongly indicates that tobacco smoking, and particularly cigarette smoking, is a major cause of lung cancer."

This conclusion has been contested by outstanding researchers, including Dr. Clarence Cook Little, who probably knows more about mouse cancers than any man in the world. The Roscoe B. Jackson Memorial Laboratory at Bar Harbor, Maine, which he founded, supplies genetically controlled mice for most of the studies in the United States, including those of Drs. Wynder and Graham. According to Dr. Little, the latter experiment is "ninety per cent enthusiastic, ten per cent critical."

The significance of the (Continued on page 90)

by ERIC NORTHRUP

"Annie Oakley. Can't miss at forty yards."

He hadn't meant to say anything mean. Not when her face looked like this and her eyes were full of gray mist.

"I'm a jerk," he said. She looked up at him in surprise, and the way her eyes opened, he could see way down deep in them, past the mist. "I'm a double jerk," he said. "I never knew a little kid that went around shooting wolves. Maybe you ain't so little at that."

"Maybe." She smiled, and he noticed that when her eyes crinkled up like that, he couldn't see the gray in them, only the shine.

"I'm a triple jerkl" he said.

The wolf tracks turned down the lake road toward their own farm. They passed the old weathered house and the fields fighting their battle against the forest. The lead jeep stopped and Bert got out and studied the tracks on the shoulder of the

road. He walked to their jeep and opened the door and looked at old Jeffrey.

"You got trouble," he said. "The critter didn't cut over to cross the lake. He angled by your barn. I can hear cows bellerin'

"Stephaniel" Jeffrey shouted. He stumbled over his grandfather's knees. He ran down the road, oblivious of the voices calling him, oblivious of the danger of ambush. But as he ran, the urgency seeped out of him. He knew what he would find. It would be the last senseless act of violence; the last act of directionless hate.

"When I go, I'll take as many as I can with me." How often he had heard it! Mike Sullivan had said it. He, himself, had said it; out loud, at first, during those childish cops-and-robbers games in the alleys; then silently, within himself, a creed, a way of life. Or, perhaps, a way of death. The way of the wolf.

He found the calf dead and horribly

Why Shouldn't You Smoke? Continued from page 25

Graham-Wynder experiments has been to determine whether or not a suspected challenged on the following grounds:

1. The results obtained were unique. Scores of similar experiments, conducted with scrupulous scientific care, have failed to produce cancer in mice. This may indicate that:

(a) Any carcinogens (cancer-producing substances), if they are present in tobacco tars, must be extremely weak:

(b) The mice used in the study are unusually susceptible to cancer;

(c) An extraneous non-tobacco factor, as yet undetected but peculiar to this particular experiment, has caused or influenced the development of the mouse cancers. This latter possibility is enhanced by the fact that Drs. Graham and Wynder, in subsequent experiments, have been unable to achieve the same results.

2. Mice, although they provide valuable living tools for many types of medical investigation, are not a direct index to human cancer. It is the consensus of cancer researchers that skin tumors in mice are not comparable to lung cancer in humans. Mice generally show a high susceptibility to cancer; some strains have been bred to such sensitivity that they can develop tumors on exposure to innocuous substances like tomato juice and sugar water. Dr. Ionathan Hartwell of the government's National Cancer Institute has observed that, whereas many chemicals induce tumors in cancersensitive mice, none of these compounds has been able to cause malignant growths in monkeys.

3. Painting the shaved backs of mice with concentrated tobacco tars does not duplicate the kind of tissue exposure that occurs when human lungs inhale tobacco smoke.

4. The findings do not consider a multitude of specific factors, internal and environmental, that may have been involved in the initiation of cancerous growths in the mice studied. Furthermore, even if such conditions were evaluated, the most that could be hoped for would be a more accurate estimate of whether or not tobacco was responsible for the mouse cancer. There would still be no proof of a parallel effect on human lung tissue.

The medical investigator who is trying

substance actually produces cancer is faced with the dilemma of multiple choice. First, he must select his animal, knowing full well that the ability to induce cancer in this particular species may prove little or nothing about the cancer-inciting qualities of the substance in other animals, let alone man. Second, if he intends to use animals, such as mice which have been carefully inbred to produce certain genetic characteristics and susceptibilities, he must decide what strain to choose, inasmuch as each type reacts differently to chemical agents. Third, he must consider the sex and age of the animals, since hormonal influences are known to play a key role in some types of cancer. Fourth, he must plan the type of diet, housing, physical habitat and other environmental conditions for his experimental subjects. This involves controlling such factors as light, heat and exercise facilities, that often affect biologic responses.

n addition, the investigator must select L the specific tissue, such as skin, lung or other internal organ, on which the substance is to be tested, and must decide how the latter is to be administered-orally, by injection, inhalation, or surface application. He must also decide in what dosage the chemical is to be given, how diluted or concentrated, over how long a period, how frequently, and so forth. Unless these and many additional factors are given due consideration, the results of the experiment cannot be fully evaluated.

Animal experiments, therefore, rarely supply a ready answer to the origin of nonbacterial diseases-arteriosclerosis, hypertension, cancer, diabetes, arthritis-in man. The reason for such experimentation is usually to guide scientists in their efforts to track down and isolate some "biologically active" material for subsequent studies on humans. Mouse-skin tests might thus conceivably be used to guide scientists in efforts to track down the mouse carcinogens in various complex mixtures so as to isolate substances that might come under suspicion. But the direct testing of human reactions can begin only after such isolation has been carried to successful culmination.

The failure of many investigators to isolate a specific human carcinogen from tobacco casts serious doubt on the validity of the cigarette-lung cancer theory. Unfortunately, negative findings rarely make headlines, so that the public often confuses the exception with the rule. Millions will remember the dark vial of tobacco tar and the cancerous mouse, but it is doubtful that more than a hundred newspaper readers can recall a significant report on mice, smoking and lung cancer by Dr. Russell W. Weller of the Hahnemann Hospital in Philadelphia.

mutilated. The senseless creed had been

fulfilled. But the last act was not ended.

Not completely ended. He stood up and

"I'm going after him," he said. "There'll

"There's no need," Bert said. "He's hit

The boy looked at him and shook his

head. "No, Bert. You don't understand,'

he said quietly. "He must know that

someone is after him. He must know that

someone will follow him until he's dead.

"Why?" old Jeffrey asked softly. "Be-

A look of complete understanding

"No," he said simply. "Because he's a

The old man nodded. "You'll need a gun,"

he said, and held out his rifle.

passed between them, and the boy's lips

faced the people gathered around him.

be a full moon.'

bad. He'll die.'

I got to do it."

curved slightly.

wolf.'

cause he killed your calf?"

Instead of painting the shaved backs of his mice with gummy tobacco tars, Dr. Weller placed the animals in a cigarettesmoke-filled chamber-a situation which he believes more closely approximates the normal exposure of the human lung during the process of inhalation. The mice were exposed to tobacco smoke at regular intervals, beginning at the age of mouse "adolescence" and lasting through the normal life span. As controls, Dr. Weller maintained a second group of mice that followed the same living routines as the exposed animals, except that they were kept from any contact with tobacco smoke. Whenever a mouse in either group died, another in the opposing group was killed, and the lungs of both were examined microscopical-Of 132 mice that became lifetime ly, "smokers," only one developed lung cancer, a figure well under the normal spontaneous cancer expectancy of these animals.

Similar non-cancer results have been recorded in an exhaustive series of experiments recently conducted by the British Empire Cancer Campaign, whose official report, released in 1956, said:

"Attempts have been made to produce cancer in the lungs of rats by the direct injection of tobacco tar and also various carcinogens into the lung. At another center, cigarette-smoke tar and resin have been injected into the lungs of mice; the few tumors that developed were regarded as spontaneous and in no way due to the effect of the injected material.

"Experiments set up to test for carcinogenicity in cigarette tar by its application to the skin of the mouse have now been completed, with negative results. No ma-

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lignant tumors were obtained either with the whole tar or with the neutral fraction. Nor have any tumors as yet appeared in rats injected subcutaneously with fresh cigarette tar, or hamsters which had cigarette tar injected into the bronchus; while in other experiments animals injected subcutaneously with the tar resulting from cigarettes made entirely from cigarette paper have shown no tumors.

n other experiments to test crude tars condensed from cigarette smoke, no skin tumors were obtained in mice painted twice weekly with a twenty-per cent solution of the tar in acetone. Using still another route, at another center, tar obtained in a smoking machine was introduced into the oesophagus of mice, a route of administration which has given a high yield of lung cancer after the introduction of a known carcinogen; no definite carcinoma of the lung has developed to date."

In sharp contrast to the dearth of experimental evidence against tobacco is the rapidly growing inventory of chemical substances that are known to incite cancer in animals. To date more than 400 such carcinogen's have been identified. Several scores of these, contained mainly in the airborne by-products of industry and automotive traffic, have been implicated in human cancer. Dr. W. C. Hueper, chief of the Environmental Cancer Section of the National Cancer Institute, has catalogued an impressive list of agents, common to certain industries and occupations, found in the lungs of workers dying of respiratory cancer. Lung-cancer mortality is especially high in jobs involving constant inhalation of metal dusts, coal-tar fumes, oil mists and particles of radioactive ores. In addition, there is considerable evidence that air polluted with exhaust fumes of gasoline and Diesel engines, soot from home furnaces and highway asphalt dusts contains potent carcinogenic substances.

Unlike the derivatives of tobacco, these components of polluted air have been used repeatedly to induce pulmonary and other types of cancer in test animals. A decade ago, the United States Public Health Service took distillations from the atmosphere of eight major American cities, applied them to the skins of laboratory mice, and in each case produced a high rate of malignant tumors. In Los Angeles today, Dr. Paul Kotin, air-pollution expert of the University of California, is studying the effects of smog by piping it in controlled measures into mouse-inhabited chambers. His findings thus far show a sharp increase in lung cancer, as compared to the normal tumor rate in control mice that live in a smog-free atmosphere.

In a recent article in a cancer journal, Dr. Kotin stated that a review of experimental and statistical evidence implicates air pollution as a leading factor in the rise of lung-cancer mortality. He also said that other factors, including the excessive use of tobacco, might play a secondary role.

On the basis of occupational cancer studies, Dr. Hueper and many other investigators suspect that air pollution, rather than tobacco, may be a key factor in lung cancer. There can be little doubt that industrial by-products are involved in the disease; removal of these substances by air-conditioning or the wearing of masks has in some industries produced a marked decline in the lung-cancer rate. But proof that air pollution is the major cause of respiratory tumors is far from established. The fact that most workers in high-cancer occupations do not develop the disease, also the unexplained low cancer rate in a few large industrial cities, indicate that other influences are present.

The work of Dr. Harry S. N. Greene, chief pathologist at the Yale School of Medicine, comes close to an actual clinical test of the effects of tobacco on human lungs. In 1941, Dr. Greene perfected a method for transplanting living tissues from one species of animal to another. He proved that, although the normal adult tissue of a mouse will not "take" if it is transplanted to a guinea pig, embryonic tissue from an unborn mouse can be transplanted to the guinea pig, where it will continue to live and grow,

Since then, Dr. Greene has performed thousands of such transplants from a score of species, including man, and has used the technique to study the effects of various chemicals and micro-organisms on the growing specimens. He has placed specks of embryonic human lung tissue in the transparent anterior chamber of guinea pigs' eyes, where he has been able to observe the growth of these specks into pea-sized blobs of normal adult lung tissue, identical with that of mature men and women.

By inoculating the ti-sue specimen with the trial material and then transplanting it to a guinea pig's eye, he was able to observe the pathologic effects, later confirmed by microscopic analysis.

For more than ten years Dr. Greene has been saturating embryonic human lung tissue specimens with a variety of tobacco derivatives, including the gummy tars condensed in cigarette-smoking machines, and has transplanted these specimens to animal hosts, where they continued to grow and develop. In no case has he been able to induce cancer of the lung tissue. Moreover, in similar experiments with



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transplanted embryonic mouse lung from mice of various strains, including CAF1 used by Wynder and Graham, he has failed to observe any change from the normal, even after a year of repeated transplants and infiltration with tobacco products. By contrast, the very same technique, using known carcinogens such as methylcholanthrene (a coal-tar derivative), has produced cancer in almost 100 per cent of the mouse-tissue specimens, within thirty to forty days of transplantation.

The Greene findings are not conclusive. They fail to answer a number of important questions, such as the basic problem of whether or not there is a constitutional factor in human cancer that must be present for any local tissue to react to a specific carcinogen. If there is, then the failure to induce cancer in a bit of human tissue that has been transferred to a foreign host will teach us nothing about the susceptibility of such tissue to cancer.

The human body has a natural immunizing mechanism against cancer, says Dr. Cornelius P. Rhoads, director of New York's famed Sloan-Kettering Institute for Cancer Research. Cancer cells were recently injected beneath the skin of the forearms of fourteen healthy volunteer prisoners at the Ohio State Penitentiary. In every case there was a vigorous local reaction to the cells, and if the implanted cells were not promptly cut out, he said, they were completely "sloughed off in a rejection reaction." On the other hand, Dr. Rhoads reported, cancer cells implanted in patients with far-advanced cases took hold and grew until removed.

Not only has medical data been used to try to link up smoking and cancer, as has been shown, but so also have statistical studies and observations. Most widely publicized of these surveys was that of the American Cancer Society, based on a study covering 188,000 white men aged fifty to sixty-nine, undertaken at the direction of E. Cuyler Hammond and Daniel Horn in 1952. Each of 22,000 field workers questioned from five to ten men on their smoking habits and reported their findings annually until 1956.

Results of the Hammond-Horn study, and the dramatic manner in which it was conducted, have attracted widespread response from lay and professional circles here and abroad. Since it is regarded in this country as the most authoritative and thorough-going smoking-and-health survey to date, the Hammond-Horn investigation may well be used as a criterion for all such studies, and also brings into focus the larger question of whether and under what conditions statistics may be employed for the detection of disease origin.

To the casual reader, untrained in the countless errors of omission and commission that can befuddle a statistical investigation, the Hammond-Horn study apparently presents an airtight argument against smoking. Consider the method and the findings:

Twenty-two thousand well-intentioned, unpaid volunteers obtained by personal contact the smoking histories of approximately 188,000 white men from the ages of fifty to sixty-nine. The men were chosen from 394 counties of ten states and resided in communities that varied from very large cities to small towns and farming districts. A variety of vocations were represented.

E ach subject was asked to fill out a de-tailed four-page questionnaire listing his lifetime smoking habits in terms of quantity, regularity and type of consumption (cigarette, cigar or pipe). The volunteers were instructed to report annually all deaths occurring among the men who had turned in completed questionnaires, and the causes of mortality were then tabulated after verification. When cancer was listed on the death certificate, an effort was made to secure further details.

As reported in June, 1955, 8,105 of the men under study died in the first thirty-two months of the survey. Of these, 168 deaths were found by careful tissue examination to be due to primary lung cancer. A review of the smoking histories in each of these cases revealed that lung cancer deaths were from three to nine times as high among men who had smoked cigarettes at some time as among non-smokers, and from five to sixteen times as high among heavy cigarette smokers as among non-smokers. Death rates for pipe and cigar smokers were about the same as for non-smokers.

From this finding, it was but a short step to suggest that cigarette smokers run a considerably greater risk of contracting lung cancer than do non-smokers and, carrying the argument further, that cigarettes cause lung cancer.

Convincing as it may seem, this conclusion, except when supported by clinical or laboratory proof, represents one of the oldest fallacies of logic that pops up with surprising persistence in statistical material; the ancient post hoc scheme of reasoningthat because a and b occur simultaneously, a causes b. Years ago, milk was thought to be a cause of cancer, based on the observations that cancer was increasing in Switzerland, Minnesota, Wisconsin, and New England-all high milk-consumption areas-but was very rare in milk-starved Ceylon.

Overlooked in this milk-cancer theory, of course, was another all-important factor: 92

age. Cancer is primarily a disease of the middle and later years. It is therefore most common in well-fed, sanitary areas where the average life span is high; in Ceylon, Japan, and other low-diet, milk-dry regions, few persons live to the age when cancer may strike.

Obvious as it may seem, this fallacy in logic forms the root of many a statistical rhubarb. The essence of the fallacy is the failure to recognize that statistical association may have little bearing on causal relationships, as in the milk-cancer notion cited above. In many instances a and bmay be closely related statistically, yet totally unrelated causally, each being the effect of a third factor, c, or group of factors. More than one responsible medical authority has suggested that both cancer and smoking may derive from a specific grouping of constitutional and emotional



ISRAEL is the only country in the world that requires peacetime training of unmarried women. Girls are called for duty at the age of eighteen and must spend at least two years doing military service.

factors. Even more plausible is the possibility that multiple environmental influences may combine with personal or genetic characteristics to produce the invisible cell transformation known as cancer.

Statistician Hammond has himself made this clear in his observation that, in medicine generally and in cancer particularly, the age-old simple notion of single causes has been pretty much discarded. Certainly, in long-latent, systematic diseases, such as cancer and coronary heart disease, where symptoms cannot be traced to a specific microorganic invader, the medical investigator must use all weapons, including statistics, to search out a variety of factors, any of which might prove significant. It is here that one finds the most glaring deficiency of the Hammond-Horn study. Unlike the standard epidemiologic approach, which assembles a multitude of possible influences and, by elimination and follow-up medical studies, seeks to establish the most likely causes of a given disease, the ACS survey was from the outset committed to consideration of a single factor.

A reading of the four-page questionnaire reveals that all information requested was restricted to smoking habits. There was not a single reference to factors such as industrial and urban air pollution. An objective, although by no means complete approach to the problem of lung cancer causation would have to include in its survey such obvious factors as type and location of job, place of residence, means of transportation most commonly used, family background and medical history, physical type, emotional make-up and the degree of tension in the daily routine. It might then be possible, by tabulating and cross-checking these variables with the mortality tables, to discover the urban-versus-rural ratio of lung-cancer deaths-known to be very high-also the industrial versus whitecollar ratio, and others, any one of which might provide an important clue.

The solitary listing of the subject's address in the questionnaire is practically meaningless, since it offers no indication as to where he spends his work day, nor how much of his time may be spent in congested highway traffic. Thus the resident of an outlying, non-industrial area might travel daily to a large manufacturing plant or to a crowded business district in which there is considerable air pollution. He would be tabulated according to his address among non-urbanites who are not normally exposed to such conditions.

It is indeed regrettable that, with such a large population sampling, Drs. Hammond. and Horn did not make fuller data available. As it now stands, the limitations imposed on the project have produced an interesting and possibly useful statistical roundup of smoking habits, but have added only the most dubious materials to our knowledge of how smoking affects health.

Dr. Paul E. Steiner, a prominent cancer researcher at the University of Chicago, recently listed a number of possible cancerproducing agents. He presented a table of the number of United States residents exposed to such agents and reached a total of at least 725,000 man-years of exposure, against which there are 20,000 total annual lung-cancer cases. His conclusion was that one phenomenon of lung cancer is its "small attack rate."

Tiewed in this light, the overwhelming attention devoted to the purely hypothetical cigarette-cancer risk verges on the absurd. Even if one accepts at face value the contention that tobacco is carcinogenic, the Hammond-Horn figures show that it must be a remarkably weak cancer agent. How else explain that barely one-tenth of one per cent of heavy smokers develop lung cancer, while the rest apparently avoid it?

Since the ACS survey excludes from its purview all factors save smoking, it cannot, by its very nature, evaluate those influences in man and his environment that compete with or contradict the role of tobacco in lung cancer. Yet it is difficult to see how any serious statistical investigation of the problem can avoid considering a number of provocative issues. Still to be answered are such questions as:

Why do lung cancer death rates vary sharply from country to country and region to region, regardless of smoking habits?

Why the sharp differential of the disease between industrial cities? Can this be due to atmospheric changes-humidity factors, inversion layers, and the like?

Why does the male-female lung cancer ratio-normally high-often disappear, irrespective of smoking rates (as among the Los Angeles Mexicans)?

How justify claims of causation in a disease that requires twenty to thirty years of latent development yet reveals no premonitory symptoms en route?

Of course, it should be obvious that lack of evidence does not, of itself, disprove a hypothesis. While broader and more intensive research into the possible causes of cancer is needed, investigators have not by any means rejected the possibility that cigarettes may be one out of many factors of the disease. Dr. Clarence Cook Little, Chairman of the Scientific Advisory Board to the Tobacco Industry Research Committee, has summed up the attitude of most careful investigators:

"Any possible role of smoking in the etiology of lung cancer remains an unresolved question. It cannot be said that smoking had been absolved from suspicion; neither have the charges that smoking has a role in lung cancer causation been proven. So many unknowns still obscure the whole field of cancer causation that it is not possible at this stage to say either 'this is it' or 'This is not it' about any single factor.'

Dr. Joseph Berkson, chief of the Section of Biometry and Medical Statistics of the Mayo Clinic, has questioned the validity of the Hammond-Horn statistics. In a Mayo Clinic publication of July, 1955, Dr. Berkson wrote that records from autopsy examinations, clinical observations on individual patients and results of animal experiments do not support the theory that smoking causes cancer.

Statistics, as always, can play a brilliant part in providing clues for follow-up laboratory and clinical investigation. But until such clues receive scientific confirmation. claims of causality can lead only to unwarranted emphasis that may adversely affect the distribution of research facilities. Perhaps the best statement of the problem was made by none other than Dr. E. Cuyler Hammond, in 1953:

"In my opinion, the full facts are not yet known about any of these possible factors. Some investigators have expressed the opinion that, while cigarette smoking may not be the only cause of lung cancer, it is at least by far the most important cause and accounts for the increase in the death rate. If this view is now accepted as fact, it inevitably will have the result of reducing research in respect to other possible causes. After all, you cannot expect the public to put up millions of dollars for investigations of other possibilities if everyone thinks the answer has been found. For this reason, if for no other, I should want very strong proof indeed before I would be willing to state as an absolute fact that I know cigarettes to be responsible."

Nothing has happened since 1953 to warrant revision of this forthright statement.



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UN TIPS

by JEB COLE

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RESORT LAST U R 0 F 0 E TH

PUZZLE OF THE PHANTOM GUN

n the gathering dusk of May 30, 1927, two men were wrestling fiercely in a narrow passageway between two houses in Grand Rapids, Michigan.

Some who witnessed the affray testified later they believed the men were struggling for possession of a pistol, held by one or the other of the pair. But no one was sure. Several shots roared in the narrow alley. The exact number never was explicitly determined but at least three, perhaps more, came from a shotgun fired, seemingly at random, by a third man.

This man had lunged from the back door of one of the houses, waving the shotgun, and let fly. Three bystanders in the immediate area of the fight were wounded.

While the shotgun blasts were echoing up and down Thompson Court, then a neighborhood of immigrants in an older section of Grand Rapids, one of the two fighting men dropped to the sidewalk, mortally wounded. The other fled into the gathering dusk and vanished.

The man who ran was Jack DeSimone. He had come to the United States seven years before, from his native Sicily. The man who fell-and who was dead from a bullet wound in the brain when police arrived a few minutes after the shooting-was Isadore Vitale, also of Sicilian birth.

Police learned from the near-hysterical residents of the neighborhood that the fight had erupted when one of the two men, who had quarreled earlier, had produced a pistol. Some of the witnesses said it was De-Simone who had drawn the revolver. Others said the gun was in Vitale's hands.

In either event, though, the disputed pistol completely evaporated by the time police arrived. No trace of it, nor any evidence that it actually existed ever has been found. Witnesses who stood within a few feet of the fight and had a clear view of DeSimone's hands as he ran away have testified they saw no gun. Neither, they declared, did they see him place anything in his pockets or throw anything away.

The pistol, subsequently established by the authorities as the "death gun" in the incident, became a phantom weapon. It has remained as such for thirty years-three decades during which Jack DeSimone, from behind the bars of Jackson Penitentiary, has steadfastly protested he did not shoot Isadore Vitale.

These were the circumstances that led up, on that long-ago Memorial Day in Grand Rapids, to the shooting affray on Thompson Court:

DeSimone had settled in Detroit after immigrating to America. A considerable number of his former countrymen whom he had known in his youth in Sicily also were living there and in other Michigan communities.

DeSimone was employed as a cement finisher, but associated, largely because he spoke no English, with some of his former pals, who in the 1920s had become involved in less reputable pursuits. A number of them were in the bootlegging business.

Those chance associations were destined to spell deep trouble later for Jack DeSimone, whether or not he ever was a party to their illicit activities.

On May 30, 1927, DeSimone drove from Detroit to Grand Rapids with an acquaintance to officiate as godfather at a christening. The affair was held in the sector traversed by Thompson Court, then populated principally by recent immigrants from Italy. A highly convivial spirit marked the celebration, with wine flowing freely and tables groaning with the customary delicacies and trimmings.

The event occurred in the home of Ignatz Cavelrusso, a long-time friend of Jack DeSimone. The place was a short distance from the house at 721 Thompson Court where Isadore Vitale, his brother, Baptista, and other members of their family lived. The Vitales and the Cavelrussos had only a passing acquaintance in the neighborhood, but as is the custom, everyone dropped in and was welcomed at the celebration.

Late in the afternoon some trivial argument arose involving Isadore Vitale. A scuffle ensued, during which a table was overturned and wine was spilled. DeSimone, in his role as godfather and in a sense a sort of ranking official of the party, intervened as a peacemaker. His efforts drew considerable resentment from Vitale, with whom DeSimone was acquainted from the old days in Italy. But peace eventually was restored and the Vitale contingent departed in what witnesses now recall was something short of good humor. Part of the trouble, some of the surviving witnesses said later, concerned a dispute between DeSimone and Vitale over a sum of money supposedly owed DeSimone for his part in carrying out an ancient Sicilian ritual incident to Vitale's marriage some time before.

In the ritual, which still persists in some parts of Italy, a bridegroom whose prospective in-laws might have some objections to the marriage, arranges with friends to "kidnap" the bride and spirit her to a rendezvous where her intended, with proper overtones of melodrama, is waiting. For this service the selected "conspirators" were paid.

Vitale, it would appear, had failed to pay.

After the departure of the Vitales, the party in Grand Rapids continued for a time, then broke up shortly before eight p.m. DeSimone, in company with some of the other guests, started walking to where he had left his car. As they passed the (Continued on page 94)

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6



Hunting and Fishing WITH GIL PAUST

FISH FRY: Problem is how to cook a fish over an open fire without a pan, screen or grill. Indians leave it uncleaned and insert a stick as a spit through its tail and out the head. Efficient but unsavory. If spit method is used on a cleaned fish, the meat falls into the fire as soon as it cooks tender. The "hotstone" method is okay if you like ashes as seasoning. Here's the best one: Clean your fish, cut into five-inch chunks and insert forked stick of green wood through sides as shown in illustration above. Then broil over the fire until well done.

WINTER BAIT: There's no trick to preserving minnows for ice fishing. Put some salt in a jar, then the live minnows, and fill the jar with salt. Finally add water and seal. Refrigerated, they'll keep for months.

FORE-END TROUBLE: When removing a rifle's fore end for cleaning before storage, count the turns of the fore-end screw and use the same number of turns when reassembling. If you screw it too tight drastic re-sighting will be necessary.

MITTEN KEEPER: If you're tired of perverse mittens or gloves which are always being dropped in the wet, fumbled for or lost, try a kiddle trick. Anchor one mitt to each side of your jacket with a length of fishline. Slip them off and forget them when you need your hands.

ROD RULERS: A project guaranteed to take the gloom out of one of those dull, winter evenings, is to make a built-in fish rule for each fishing rod. Starting above the handle, wrap a narrow red winding at every inch for a couple of feet, then preserve with a touch of clear lacquer. Dabs of red fingernail polish instead of windings will make the job easier, but it won't be as classy.

SLIP-PROOF WADERS: Another winter project for fishermen-take an old pair of rubbers that fit over the feet of your boots or waders and, to the sole of each, rivet a half-dozen bottle caps with their edges outward. Now, come wading time, you'll step out without fear of dunking.

SPOOKY COMPASS: Robert Trapp of Seattle, Washington, who navigates Northwest Orient airliners across the Pacific, has a \$5 tip that will keep some camera-toting sportsmen from getting lost afield. Magnetic compasses and photographic exposure meters don't mix! Keep the meter far away when you take a bearing or it will drive the compass needle crazy.

FIRST AID FOR LEAKS: Curt Davis of Minneapolis, Minnesota sends this \$5 idea from a Northern Consolidated Airlines fishing camp in Alaska. When a boot, wader, rubber boat or even a canoe springs a leak, a Band-Aid plastic strip makes a fast repair. Dry the outside surface, remove gauze from the strip, heat strip over a match flame and apply.

ARGOSY will pay \$5 for every hunting or fishing tip printed in this column. All contributions become the property of the magazine. Write: Gil Paust, Hunting and Fishing, ARGOSY, 205 East 42nd St., N. Y. 17, N. Y. ARGOSY Now! The one cigarette in tune with America's taste! Hit Parade has all you want!

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JANUARY, 1958

(CA. T. Co.)

The old tricks of "flattery" and "bluff" no longer work-though men still try them. Here's a new technique that seems to be paying off.

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