SCIEN(CE under dictatorship becomes subordinated to the guiding philosophy of the dictatorship. Irrespective of other ideologic trappings, the guiding philosophic principle of recent dictatorships, including those of the Nazis, has been Hegelian in that what has been considered "rational utility" and corresponding doctrine and planning has replaced moral, ethical and religious values. Nazi propaganda was highly effective in perverting public opinion and public conscience, in a remarkably short time. In the medical profession this expressed itself in a rapid decline in standards of professional ethics. Medical science in Nazi Germany, collated with this Hegelian trend particularly in the following enterprises: the mass extermination of the chronically sick in the interest of saving "useless" expenses to the community as a whole; the mass extermination of those considered socially disturbing or racially and ideologically unwanted; the individual, inconspicuous extermination of those considered disloyal within the ruling group; and the ruthless use of "human experimental material" for military research.

This paper discusses the origins of these activities, as well as their consequences upon the body social, and the motivation of those participating in them.

Preparatory Propaganda

Even before the Nazis took open charge in Germany, a propaganda barrage was directed against the traditional companionate nineteenth-century attitudes toward the chronically ill, and for the adoption of a utilitarian, Hegelian point of view. Sterilization and euthanasia of persons with chronic mental illnesses was discussed at a meeting of Bavarian psychiatrists in 1933. By 1936 extermination of the physically or socially unfit was so openly accepted that its practice was mentioned incidentally in an article published in an official German medical journal. Lay opinion was not neglected in this campaign. Adults were propagandized by motion pictures, one of which, entitled "I Accuse," deals entirely with euthanasia. This film depicts the life history of a woman suffering from multiple sclerosis, in it, her husband, a doctor, finally kills her to the accompaniment of soft piano music rendered by a sympathetic colleague in an adjoining room. Acceptance of this ideology was implanted even in the children. A widely used high-school mathematics text, "Mathematics in the Service of National Political Education," includes problems stated in distorted terms of the cost of caring for and re-establishing the chronically sick and crippled. One of the problems asked, for instance, how many new housing units could be built and how many marriage.allowance loans could be given to newly married couples for the amount of money it cost the state to care for the crippled, the criminal and the insane.

Euthanasia

The first direct order for euthanasia was issued by Hitler on September 1, 1939, and an organization was set up to execute the program. Dr. Karl Brandt headed the medical section, and Philipp Bouhler the administrative section. All state institutions were required to report on patients who had been ill five years or more and who were unable to work, by filling out questionnaires giving name, race, marital status, nationality, sex of, him, whether regularly visited and by whom, who bore financial responsibility and so forth. The decision regarding which patients should be killed was made entirely on the basis of this brief information by expert consultants, most of whom were professors of psychiatry in the key universities. These consultants never saw the patients themselves. The thoroughness of their scrutiny can be appraised by the work of one expert, who between November 14 and December 1, 1940, evaluated 2,109 questionnaires. These questionnaires were collected by a "Reich's Work Committee of Institutions for Cure and Care." A parallel organization devoted exclusively to the killing of children was known by the similarly euphemistic name of "Reich's Committee for Scientific Approach to Severe Illness Due to Heredity and Constitution." The "Charitable
Movement served as subjects. Necrosis was produced in the muscle of the leg by ligation and the wound was infected with various types of gas-producing bacteria. Subsequently, dirt, pieces of wood and glass splinters were added to the wound. Some of these victims died, and others suffered severe inflammation and deformities of the leg.

Motivation

An important feature of the experiments performed in concentration camps is the fact that they were not only represented as a ruthless and callous pursuit of science, but were also motivated by other sinister practical political and personal purposes, arising out of the requirements and problems of the administration of totalitarian rule.

Why did men like Professor Gehbardt lend themselves to such experiments? The reasons are fairly simple and practical, and are not surprising. For anyone familiar with the evidence of fear, hostility, suspicion, rivalry and intrigue, the inhumanity of Nazi Germany and the persecution that it brought about were motivational factors, rather than the sinister practical political and personal purposes arising out of the requirements and problems of the administration of totalitarian rule.

The Early Change in Medical Attitudes

Whatever proportion these crimes finally assumed, it became evident to all who investigated them that they had started from small beginnings. The case of Hoerbdt, who died in 1941, certainly a subtle shift in emphasis in the basic attitude of the physicians. It started with the acceptance of the attitude, basic to all of them, that medical care was to be given to a patient as if he were not worth living. The doctors of Holland rejected this order unanimously because they saw what it actually meant—namely, the concentration of their efforts on more rehabilitation of the sick for useful labor, and abomination of medical secrecy. Although on the surface the new order appeared not to greatly unsettle, there was much faction among the Dutch physicians that it is the first, although slight, step away from principle that is the most important one. The Dutch physicians declared that they would not obey this order. When Seiss-Impert threatened them with revocation of their licenses, they returned their licenses, removed their bandages and, while seeing their own patients secretly, no longer wrote death or birth certificates. Seiss-Impert reiterated his steps and tried to enslave them—still to no effect. Then he arrested 100 Dutch physicians and sent them to concentration camps. The medical profession remained adamant and quietly took care of their widows and orphans, but would not give in. Thus it continued until the concentration camps had been established. Therapeutic sterilization was recommended or participated in by any Dutch physician. They had the choice of participating in the first step, the second step, or the third step, and they all participated in the first and second step, and then were arrested and sent to the camps. It is obvious that if the medical profession of Holland could resist so effectively the German medical profession could likewise have resisted had they not been forced to participate in the first step.

The Example of Successful Resistance by the Physicians of the Netherlands

There is no doubt that in Germany itself the first and most effective step of propaganda within the medical profession was the propaganda barrage against the useless, incurably sick described above. Similar, even more subtle efforts were made in some of the occupied countries. In the Netherlands, Reich Commissar for the Occupied Netherlands Territories, wanted to draw the Dutch physicians into the orbit of the activities of the German medical profession, he did not tell them "You must send your chronic patients to death factories." He instead inferred that he would go to Government request in your office," but he counseled his order in most careful and superficially accepted terminology. While we cannot order the Reich Commissar of the Netherlands Territories concerning the Netherlands doctors of

19 December 1941 reads as follows: "It is the duty of the doctor, through advice and effort, conciliating and controlling the patient to assist as helper the patient entrusted to his care in the maintenance and accomplishment of improvement and re-establishment of the patient's vitality, mental efficiency, and health. The accomplishment of this is a public task." The physicians of Holland rejected this order unanimously because they saw what it actually meant—namely, the concentration of their efforts on more rehabilitation of the sick for useful labor, and abomination of medical secrecy. Although on the surface the new order appeared not to greatly unsettle, there was much faction among the Dutch physicians that it is the first, although slight, step away from principle that is the most important one. The Dutch physicians declared that they would not obey this order. When Seiss-Impert threatened them with revocation of their licenses, they returned their licenses, removed their bandages and, while seeing their own patients secretly, no longer wrote death or birth certificates. Seiss-Impert reiterated his steps and tried to enslave them—still to no effect. Then he arrested 100 Dutch physicians and sent them to concentration camps. The medical profession remained adamant and quietly took care of their widows and orphans, but would not give in. Thus it continued until the concentration camps had been established. Therapeutic sterilization was recommended or participated in by any Dutch physician. They had the choice of participating in the first step, the second step, or the third step, and they all participated in the first and second step, and then were arrested and sent to the camps. It is obvious that if the medical profession of Holland could resist so effectively the German medical profession could likewise have resisted had they not been forced to participate in the first step.

The Situation in the United States

Medical science is now facing a crisis in which there are many dangers. American physicians have also been infected with Hegelian, cold-blooded, militarist philosophy and whether early traces of it can be detected in their medical thinking there is no question that this system is harmful in itself. The scrambling for funds available, both private and public. From the attitude of easing patients with chronic diseases away from the doors of the best places of treatment, facilities available to the actual dispensing of such patients to hospitals in a long but never-ending logical step. Resources for the so-called incurable patient have recently become practically unavailable.

There has been in history been a shortage of money for the development and manufacture of weapons of war, but there is now a shortage of medical personnel to fight. The disproportion of monetary support for war and that available for medical and care in an anarchistic and chaotic war system is now far from a"enlightened thought of the common man" by some observers. The comparable cost of jet planes and hospital beds is too great to give up for the sake of a shortage of the latter. I trust that these remarks will not be misunderstood. I believe that armament, including jet planes, is vital for the security of the republic, but adequate maintenance of stand-

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by Dr. Hoven to kill several imprisoned former fellow SS men who were potential witnesses against the SS. These executions were not under investiga-
tion by the SS. At the Dachau concentration camp
Dr. Rascher developed the standard cyanide expedi-
tionary gas to be used in the Auschwitz, and either deliberately or accidentally, if mixed with cer-
tain foods, and which, and which, ironically enough, later became the method used by the SS to gas their victims of the instrument of choice. Whatever methods he
used, the physician gradually became the sole exac-
tioner, for the sake of convenience, normality and
relative secrecy. Even on German subjects, it was the
physician's duty to execute the trouble-
makers among the crew by lethal injections.

Medical science has for some time been an
instrument of military power in that it preserved
the health and fighting efficiency of troops. This
effective defensive purpose is not inconsistent
with the ethical principles of medicine. In World
War I, the German empire had used medical science
as an instrument of aggressive military power
by putting it to use in the development of gas warfare. It was left to the Nazi dictatorship
to make medical science into an instrument of po-

tical power—a formidable, essential tool in
the complete and effective manipulation of totalitarian
control. This should be a warning to all civilized
nations, and particularly to individuals who are
blindly 'the Phaenomeny' of a totalitarian rule,
under whatever name.

This entire body of research as far
seems to bear the law that the Nazi dicta-
torship was committed—namely, the use of
non-German peoples and the elimination by killing,
not only of whole groups or single victims, but also
considered useless or disposable. In effecting the two-
parts of this program, Himmler demanded and
received the cooperation of the leading figures and of German medical science. The result was a significant ad-

ance in the science of killing, or ktemology.

Medicolegal Research

Another chapter in Nazi scientific research was
that aimed to aid the military forces. Many of
these ideas originated with Himmler, who fancied
himself a scientist.

When Himmler learned that the cause of death of
most SS men in Auschwitz and elsewhere was autopsies was that during its development by counting the number
of drops emanating from freshly cut amputation
wounds of living prisoners at the execu-
tion of Dachau concentration camp by
and showers Russian prisoners through the walls. The

The experiments gave results that might have
been an important medical contribution
if an important lead had not been ignored. The
effects of cyanide gas on the person, and the
attempt to develop a live vaccine, the
experiments, including the chief consultant, Profes-

or, who should know better, were merely annoyed at the fact that the controls
did not die either, discarded this attempt as
inadmissible. The negative results of the
experiments were presented as negligible and
were used to argue against the use of cyanide gas at
Auschwitz. This incident shows that the

The natural experiment was the testing of sulfonamides against gas gangrene by
Professor Gebhardt and his collaborators, for
which young women captured from the Polish Resistance
Transport Company for the Sick" transported patients to the killing centers, and the "Charitable Foundation for the Sick" was in charge of collecting the cost of the killings from the relatives, without, however, informing them what the charges were for in the death certificates the cause of death was falsified.

What these activities meant to the population at large was well expressed by a few hardy souls who dared to protest. A member of the court of appeals at Frankfurt-am-Main wrote in December, 1939:

"There is constant discussion of the question of the destruction of socially vultile life—in the places where there are mental institutions, in neighboring towns, sometimes over a large area, throughout the Rhineland, for example. The people have some idea of the facilities to which the patients are taken from their original institution to the extermination institution and from there to the liquidation institution. I am told that when they see these buses even the children will run out: "They're taking away some more people to be gassed." From Linzberg it is reported that every day from one to three buses with shadows drawn pass through on the way to Weilheim or as far as Dachau, delivering inmates to the liquidation institution there. According to the stories the arrivals are immediately stripped to the skin, dressed in paper suits, and frequently taken to a gas chamber, where they are liquidated with hydrocyanic acid gas and an added anaesthetic. The bodies are reported to be moved to a morgue chamber by means of a conveyor belt, six bodies to a car. The resulting ashes are then disseminated in six cars which are shipped to a fertilizer plant." The resulting ash is used by the cement building is said to be visible over Hadamar every day. This is a part of the mass extermination, and other portions of the body are for anatomical examination. The papers worked for the legal liquidation job in the institutions are sold to be avoided from other areas and those among the population. This drinking heavily. Quoting an anonymous, much incident, the same agency said, "on the street the doors of Modelle". The Charitable Transport Company for the Sick brought the brains in batches of 150 to 250 at a time. The Lincoln character states, particularly the members of the armed forces suffering from psychopat- phy or neurosis, were sent to concentration camps in the capacity of death. The effect of the brain death is reassembled. This was modernized by the treatment of the center's, the largest brain patient's, particularly those with special training and instruction.

In addition to the material we received, in such patients suffering from various types of Parkinsonism, simple brain depression, inconvoluntary depression and brain tumors, and all kinds of other illnesses, including psychopathy that had been difficult to handle:

"These were selected from the various wrecks of the extermination according to an exceptionally simple and quick method. Most important was the problem of the body, and what physicians were there either too busy or did not care, and they adapted the selection to the needs and attendants. Whoever looked sick or was otherwise a problem was pressed into service in the killing center. The worst thing about this business was that it pursued a catastrophic development: they got into simply picking out whom they did not like, and then without harm to them, they did not even know them, and put their names on the list."

Large numbers that autopsies of the bodies were not feasible. That, in Dr. Hallewolfer's opinion, greatly reduced the scientific value of the material. The number of destroyed brains was well fixed and the number suspended in formalin, exactly according to his instructions. He thinks that the cause of psychiatry was in the field of pathology by these activities, and that psychiatrists have lost the respect of the German people forever. Dr. Hallewolfer con- cluded, there were interesting cases in this material."

In general only previously hospitalized patients were exterminated for reasons of illness. An exception is a program carried out in a northwestern district of Poland, the "Warschau", where a health survey of the entire population was made by an "S.S. X-Ray Battalion" headed by Professor Höhfelder, radiologist of the University of Frankfurt-am-Main. Persons found to be infected with tuberculosis were carried off to special extermination centers.

It is rather significant that the German people were considered by their Nazi leaders more ready to accept the extermination of the sick than for other reasons. It was for this reason that the first extermination of the latter group were carried out under the guise of sickness. So-called "sick patients" were ordered to survey the inmates of camps with the specific order to pick out members of racial minorities and political offenders. This resulted in the extermination of inmates of special centers. The medical staff had control over the extermination centers with special training and equipment, as the "infective German" later applied to the carrier of tuberculosis who had been active in the Czech underground. Certain classes of patients with mental diseases were exterminated, particularly those who were considered by the medical authorities suffering from psychopathology or neurosis, were sent to concentration camps in the capacity of death. The effect of the brain death is reassembled. This was modernized by the treatment of the center's, the largest brain patient's, particularly those with special training and instruction. These were selected from the various wrecks of the extermination according to an exceptionally simple and quick method. Most important was the problem of the body, and what physicians were there either too busy or did not care, and they adapted the selection to the needs and attendants. Whoever looked sick or was otherwise a problem was pressed into service in the killing center. The worst thing about this business was that it pursued a catastrophic development: they got into simply picking out whom they did not like, and then without harm to them, they did not even know them, and put their names on the list."

One of the patients thus killed, only the brains were sent to Dr. Hallewolfer; they were killed in such a way that even the rocks of the bodies were not feasible. That, in Dr. Hallewolfer's opinion, greatly reduced the scientific value of the material. The number of destroyed brains was well fixed and the number suspended in formalin, exactly according to his instructions. He thinks that the cause of psychiatry was in the field of pathology by these activities, and that psychiatrists have lost the respect of the German people forever. Dr. Hallewolfer con- cluded, there were interesting cases in this material."
ards of health and alleviation of suffering are equally vital, both from a practical point of view and from that of morale. All who took part in inducing while to spend a certain amount of effort to restrict a certain type of patient?" This rationalistic point of view has insidiously crept into the motivation of medical effort, supplanting the old Hippocratic point of view. In emergency situations, military or otherwise, such grading of effort may be justifiable, but doctors must beware lest such attitudes creep into the civilian public administration of medicine entirely outside emergency situations, because once such considerations are at all admitted, the more often and the more definitely the question is being to be asked, "Is it worth while to do this or that for this type of patient?" Evidence of the existence of such an attitude stared at me from a report on the activities of a leading public health unit, which stated rather proudly that certain treatments were given only when they appeared promising: "Our follow-up studies of 120 patients who regularly was carried on... in selective cases for treatment careful consideration is given to the prognostic cast of the patient's condition, the instituted treatment merely to satisfy relatives or our own conscience." If only those whose treatment is worth while are to be treated, what about the other ones? The doubtful patients are the ones whose recovery appears unlikely, but frequently it is hard to surprise the best prognosticators. And what shall be done during that long time lag after the disease has been treated? Or shall we surprise the patients and tell them that they must wait for the inevitable historic progression that the Greek historians have described as the law of the fall of civilizations and that has been amply attested to by the experience of the last war? It is a logical sequence from Koro to Hybris to Atro, which means from suicide to despair to disaster, the worst being increased scientific and practical accomplishments, which, however, brought about an inclination to throw away the old mores and values by a disdainful arrogance in practical efficiency. Moral and physical disaster is the inevitable consequence.

Fortunately, there are developments in this democratic society that counteract these trends. Notable among them are the societies of patients afflicted with mental illnesses that have sprung up and are dedicating themselves to guidance and information for their fellow sufferers and for the public. The support of such groups is an integral part of the mental hygiene movement, founded by a former patient with mental disease. The American Hygiene Society, the American Epilepsy League, the American Association to Control Epilepsy, the American Heart Association, "Alcoholics Anonymous" and, most recently the National Multiple Sclerosis Society. All these societies, which are coordinated with special medical societies and which have received guidance and support from resting physicians, are having an extremely wholesome effect in introducing fresh motivating power into the ivory towers of academic medicine. It is indeed interesting and an assertion of democratic vitality that these societies are activated by and for people suffering from illness and whose, under certain dictatorships, would have been slotted for euthanasia. It is thus that these new societies have taken over one of the ancient functions of medicine — namely, to give hope to the patient and to relieve his relatives. These societies need the whole-hearted support of the medical profession. Unfortunately, this support is by no means yet unanimous. A distinguished physician, investigator and teacher at an outstanding university recently told me that he was opposed to these special societies and clinics because they had nothing to offer to the patient. It would be better to wait until someone made a discovery accidentally and then start clinics. It is my opinion, however, that one cannot wait for that. The stimulus supplied by these societies is necessary to give stimulus both to public demand and to academic medicine, which at times grows stagnant and lethargic. There is the possibility that it will develop around these clinics, and whose existence did nothing to prevent the executioner from having logic on the side in Germany.

Another element of this free democratic society and enterprise that has been a stimulus to new development is the fact that, if it occurred, with great vision, has invested considerable effort in the sponsorship of new research.

Dictatorships can be defined indeed as systems in which there is a prevalence of thinking is destructive rather than ameliorative terms in dealing with social problems. The case with which destruction of life is advocated for those considered either socially useless or socially disturbing instead of educational or ameliorative measures may be the first and most obvious case of creative liberty in thinking, which is the hallmark of democratic society. All destructiveness ultimately leads to self-destruction; the fate of the SS and of Nazi Germany is an eloquent example. The destructive principle, once unleashed, is bound to engulf the whole personality and the life of the entire group. Various claims that constructive and destructive concepts arising therefrom cannot remain limited or focused upon one subject or several subjects alone, but must inevitably spread and be directed against one’s entire surrounding world, including one’s own group and ultimately the whole of society. The destructive principle of view maintained in relation to all others is the only real means of self-preservation.

A most important need in this country is for the development of active and alert hospital centers for the treatment of chronic illnesses. They must have active staffs similar to those of the hospitals for acute illnesses, and these hospitals must be fundamentally different from the custodial repatriations for derelicts, of which there are too many in existence today. Only thus can one give the right answer to divine scrutiny: Yes, we are our brothers’ keepers.

References