

It was in part because he believes in the magic power of the word that Captain Jünger wrote this book, we may assume. In part, no doubt, it was because he wished to leave a will and testament if something untoward should happen to him, as had happened to other officers. Although his brother, the poet, doubted the value of the little novel (it is a "futile undertaking to make music for the deaf," is the way he put it), Ernst Jünger insisted on publication. "Print," he explained in a foreword, "mysteriously contains the seal to something closed and immutable, a sight that delights even the lonely. We prefer to go when everything is in order. . . ."

This novelist-soldier is today the spokesman of those elements in the German Army which from the outset have hated the Nazis with a weird intensity. But Jünger has broken openly with militarism — he whose book *Der Arbeiter* was an apotheosis

of armed totalitarianism. In 1941, alive and still writing despite *On the Marble Cliffs* he published another book, in diary form, under the title *Gardens and Roads*.

In this he wrote:

We could imagine that the goddess of war and the goddess of wisdom appear at one of the crossroads of our younger years; the former with the promise to teach us how to use twenty regiments in a military engagement, the latter offering us the gift of forming with twenty words a sentence of absolute perfection. And then it might easily happen that we would choose Athene's laurels, which grow more rarely and invisibly upon the rocky precipices of our existence."

To this Hitler's chief mouthpiece, the Munich *Völkischer Beobachter*, replied on March 24, 1942: "Twenty regiments have for us at all times a greater importance." But the issue between the poet and the Head Ranger is by no means settled by that dictum.

Surgery

MODERN LUNG SURGERY SAVES LIVES

BY LEONA ALBERTS WASSERSUG

IF the young soldier had not stripped to the waist to display his scar, the story that he told would have seemed incredible. But there it was on his back — a thin, delicate scar that ex-

tended from under his left shoulder blade upward toward his spine. That scar was mute evidence of one of the miracles of modern surgery.

The soldier had had a disease called *bronchiectasis*. Doctors at the Walter Reed General Hospital had operated on him, removed the lower portion (lobe) of the left lung and the dis-

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eased, tongue-like projection of the upper lobe; and he was again fit for military duty. The cough, sputum, and blood-spitting had vanished. He had been faced with the probability of a progressive disability for the rest of his life. But modern surgery had restored his health to him.

It is difficult to realize that it is only during the past ten or fifteen years that lung surgery has been made as safe as major surgery in other parts of the body. Chest surgery has become a highly specialized field, and, of all surgical endeavors, it is probably the one that has shown the greatest amount of recent progress. In 1932 (only twelve years ago) the average mortality for the type of operation to which our soldier was subjected was 34 per cent. Besides, less than one-half of the 66 per cent that were fortunate enough to survive had satisfactory results. On the other hand, during the past five years the mortality for this same operation has averaged about 5 per cent, and each year its safety is increasing. No deaths at all were reported by two surgeons in their latest series of twenty-five consecutive cases.

Many factors have worked together to bring about this gratifying reduction in the risk of lung surgery. It had been noted, for example, that whenever the chest was opened by the surgeon, air rushed in, and the lung suddenly became deflated and collapsed. This often unhinged the delicate respiratory balance. Under these circumstances breathing was

dangerously embarrassed and death was not infrequently the outcome. But now, thanks to precise methods of controlling the pressure within the lungs, deflation is prevented. As a result, this accident has become avoidable. The experienced anesthetist applies a tight-fitting mask over the patient's face and merely feeds the proper gas-mixture under pressure. Or, even more directly, he inserts a tube into the windpipe or major air passages, and thus handles each lung independently.

These improvements in the technique of anesthesia have brought with them parallel changes in the surgeon's management of disorders arising within the chest. The surgeon now is not forced to hurry his operation, but, instead, he may proceed deliberately and precisely. Earlier methods, characterized as slapdash by Major Brian Blades of the Army Medical Corps, have been entirely discarded. Important anatomical structures within the chest can be examined carefully and treated individually. Surgical shock can be prevented or treated, if it does arise, by the administration of blood or plasma. The use of oxygen for two or three days after an operation has helped eliminate other complications and hasten recovery.

Chest surgery has therefore been made reasonably safe. Is it equally true that the patients can be cured, or at least helped, by such an operation? In most instances, yes. Whether cure may be effected depends first, of course, upon the diagnosis, and, sec-

only, upon the extent of the disease. For example, a tumor of the lung may be surgically removable in its early stages but inoperable when its growth and spread have become excessive.

By the application of recent technical developments, the diagnosis of lung diseases can be established with at least as much accuracy as the diagnosis of comparable disorders arising elsewhere in the body. Nowadays, in the great majority of cases, the surgeon can determine in advance the exact nature of the disease and the extent of the operation required. This greater precision in diagnosis (as well as the lowered risk involved) has tremendously increased the patient's chances of being benefited or even permanently cured by surgery.

In order to illustrate the multiplicity of modern methods that enable the lung surgeon to be exact in his pre-operative diagnosis, let us follow, say, one Mr. Jones into his doctor's office. We shall assume that Mr. Jones is a 45-year-old accountant, and that he has just coughed up a couple of mouthfuls of blood. He has never been so frightened in all his life. His doctor questions him, examines his chest, and obtains a specimen of sputum for analysis later in the laboratory. So far the results are inconclusive. The doctor suspects that the patient has either tuberculosis or a lung tumor.

Jones, who is an ideal patient and follows his doctor's advice, now has an X-ray taken of his chest. The X-ray specialist, after studying the film,

suspects that the bleeding may be due to bronchiectasis in the lower portion of his right lung. But here again a definite decision may be impossible on the basis of the ordinary X-ray film.

This confusing situation is soon resolved. A few mornings later Mr. Jones goes to the hospital before breakfast. His throat is deadened by an anesthetic spray, and a small quantity of bland iodized poppyseed oil is dribbled into the right lung. The procedure is simple and painless. The iodized oil outlines the tubular air passages inside the lung, and they can now be seen in perfect silhouette when an X-ray is taken. This type of X-ray is called a *bronchogram*; it gives the surgeon his first real clue to the diagnosis. In this case the bronchogram does not show any puddles of oil such as are commonly seen in bronchiectasis. Instead, a slight interference to the passage of oil is noted in one of the bronchial tubes. A tumor or other obstructive growth is therefore strongly suspected. But what kind of growth, precisely?

Again Jones goes to the hospital to have his throat anesthetized. This time a telescopic device called a *bronchoscope* is inserted into the windpipe and the bronchial tubes are viewed from within. In this way the abnormality within the lung can be examined under direct vision. If necessary, a tiny bit of tumor can be snipped out and sent to the laboratory for exact pathological diagnosis. All this evidence proves that Jones has a dangerous growth on his lung but, fortunately,

nately, it is in its early stages. Now, with X-rays, bronchogram, and bronchoscope, the surgeon has all the information he needs. He knows the disease with which he must deal, its extent, and its location. If necessary, the entire right lung may be removed and Jones may be given reasonable assurance of cure.

II

Of course, not every case involving surgery of the lung is as much of a problem as this one. Our hypothetical patient was put through the gamut of diagnostic tests in order to demonstrate the wide range of methods that may be employed for safeguarding his health and his life. This greater precision in pre-operative diagnosis has, probably more than any other single factor, increased the reliability of lung surgery.

Consider cancer of the lung. For some medically obscure reasons, the number of cases of lung cancer is apparently increasing. This fact is brought out clearly by statistics such as those from the Philadelphia Naval Hospital. Here, during the thirty-one-month period from January 1, 1937, to August 1, 1939, the diagnosis of cancer of the lung was made in thirty cases; but in the shorter period of twenty-one months, from January 1, 1941, to October 1, 1942, the number of cases had increased to forty-seven. In the United States each year this type of growth kills about 15,000 persons. Next to cancer of the stomach, it is be-

lieved to be the most common malignant growth in the male. One obvious reason for the *apparent* increase in the number of persons who have cancer of the lung is that the newer diagnostic methods have enabled doctors to find cases which, in the past, might not have been discovered.

Although cancer of the lung is a serious disease, its ravages are being constantly reduced and an increasingly greater number of lives are being salvaged by experts in thoracic surgery. One such expert, Dr. Richard H. Overholt, thoracic surgeon of the New England Deaconess Hospital, in Boston, recently reported a detailed analysis of his statistics in a journal entitled *Diseases of the Chest*. In the group of cases that he analyzed, he found thirty-two patients that were suitable for a "curative" lung operation. Of these, twenty were probably cured of their disease. Twenty persons, otherwise doomed, were given a second chance at life! Lieutenant-Commander Ferdinand Fetter, of the Naval Medical Corps Reserve, has also pointed out that in the hands of a skilled surgeon the outlook for patients who have cancer of the lung is "comparatively good." He further predicts that as more men are trained in chest surgery, more patients will be cured.

As for bronchiectasis (to get back to our soldier), surgery has been able to offer prompt dramatic cure for a disease that has been notoriously stubborn to medical management. Just how bronchiectasis gets started is not

known for certain, but what happens is that the small fine ends of the air passages lose their elasticity and cannot therefore function normally. As a result, secretions, which would be ordinarily expelled from the lungs without conscious effort, form tiny stagnant puddles in which bacteria grow and flourish. This leads to repeated attacks of coughing, the production of large quantities of disagreeable sputum, and frequent bouts of pneumonia. Often starting in childhood, the disease resists most medical forms of treatment.

In 1922, two French physicians, J. A. Sicard and J. Forestier, cautiously dripped some iodized oil down the windpipe of a few patients, and found that, as result of this application, the bronchial passages could easily be mapped out by X-ray in excellent detail. As a result of their work and the pioneer experiments of Dr. Chevalier Jackson, practically every patient has a bronchogram before being subjected to an operation for bronchiectasis. In this way the exact extent of the disease is determined. All the unhealthy lung tissue can be cut away; all the normal structures can be conserved.

If necessary, the surgeon can remove the lower lobes of both lungs, or even more. In some cases, on the other hand, the excision of just a tiny portion of one lung may be adequate to effect a cure.

Even in infants the diagnosis of bronchiectasis may be made with certainty and the proper therapeutic

steps taken. At the Hospital for Sick Children, in Toronto, bronchograms revealed this disease to be present in twelve children under the age of two years and in 230 under fourteen years of age. At the Temple University Hospital, in Philadelphia, the diagnosis was positively established in an infant thirteen months old.

Contrary to what might be expected, children withstand the operative removal of a portion of lung better than adults. Dr. A. T. Edwards operated on thirty-eight patients under the age of sixteen without a single death. Such a high degree of operative safety must be contrasted with the discouraging fact that bronchiectasis has ordinarily a poor prognosis when it begins early in life. In a recent statistical analysis of ninety-six patients who developed this disease before the age of ten years, 65 per cent were dead within twenty years and 90 per cent were dead within 30 years. With children, the lung surgeons take but little operative risk and offer the prospect of permanent cure.

Most recently these surgeons have tackled with renewed enthusiasm the most distressing of all lung afflictions — tuberculosis. This disease, which stands sixth among the leading causes of death in all age groups and first as the killer of young adults, is important not only because of its death toll, but also because it is a chronic and costly illness. Months and years may be required for its cure. But by applying the methods used in other lung disorders chest surgeons hope to find

a shorter, safer, surer road to a cure.

Tuberculosis is by no means a foreign field for surgeons. For years they had tried to promote healing within the lung but their approach was, of necessity, only an indirect one. A variety of operations was designed to rest the lung or collapse it. If simple procedures failed, ribs were often stripped from the chest wall and the entire chest was reduced to a fraction of its original size. And, although such operations as these help many patients, they are objectionable in some ways and are far from ideal.

For years a more direct approach to the problem was earnestly sought by surgeons and medical doctors alike. And then, in 1934 — a brief decade ago — Dr. S. O. Freedlander reported that he had successfully removed the upper portion of a patient's lung. Since then other surgeons have repeatedly proved that some cases of tuberculosis can be best treated by removal or excision of the diseased portions of lung. Either the entire lung or a single lobe can be taken out. During the past ten years Dr. Richard

H. Overholt has performed such operations at least sixty-three times. On the basis of this vast experience, Doctor Overholt believes: "A tuberculous lung offers no unusual problems of resection . . . resection must be given consideration in the choice of methods" (of treatment). Colonel Edward D. Churchill, of the Army Medical Corps, has found that by selectively removing only the infected lobe, lung function is generally better conserved than it is by some of the older methods of treatment. Other advantages are that the duration of the illness is reduced and the patient is rendered more promptly non-infective to others.

Lung surgery is still in its infancy but it appears to be a healthy child with a bright future. Its capabilities need further testing, and it must attain to greater maturity before its possibilities — and its limitations — can be scientifically defined. Given the opportunity to mature properly, it may prove to be a boon little short of miraculous in the salvaging of human life.



To be ignorant of one's ignorance is the malady of the ignorant.

— AMOS BRONSON ALCOTT

► Now it can be told—that the
Island stood defenseless.

BRITAIN'S DARKEST HOUR

By HECTOR BOLITHO

DURING the early mornings of 1940 Londoners used to see Mr. Neville Chamberlain snatching a breath of fresh air in St. James's Park, smiling benevolently at the sailors and soldiers as he made his way to his desk in Downing Street. The war was young then and Britons weren't even consciously self-assured because there had been no dismay to make them examine their own danger. The silver balloons were in the sky and entanglements of barbed wire had already been spread on the grass verges of the London parks. But there were no doubts. Britain's pilots and soldiers were in France, safe in the promise of victory.

Mr. Chamberlain, benign and undoubting, was the symbol of Britain's complacency. In one hand he carried gloves; in the other a correctly rolled umbrella, in memory of the *Pax Umbrellica* which he had signed in Munich two years before. He used to walk slowly, pausing to stroke the famous black cat of Downing Street, since dead, which always squatted on the step of No. 10. The whole picture was elegant, self-assured, and terribly dangerous.

Then came the changes of early summer. On May 10, the blood of the country was quickened by news of the German invasion of Holland . . . then Belgium and Luxemburg. So a new Prime Minister climbed the steps of 10 Downing Street each morning, in too much of a hurry to bother about the fresh air in the park. He carried neither umbrella nor gloves. His clothes were incongruous: an air commodore's great coat over a boiler suit, and a warrior-like tin hat. He walked quickly, chin stuck out, without pausing to be either benign or gracious, because there was alarm in his heart. He knew that the pilots and soldiers were *not* safe in France and that it was his task to warn Britain of her danger. "If you ask what our policy is," he said, "it is to wage war."

A few weeks later Mr. Churchill was in France, begging the French not to capitulate. "We will go on fighting," he said. "What with?" asked the French. "I don't know," he answered. "I haven't had time to think about that yet."

So he came back. France crumpled

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