

Public Health in Oklahoma at the Mid-Century

By E. Harold Hinman

The reaching of the mid-century in Oklahoma is a peculiarly opportune moment to consider the health of the people of our young state. When Oklahoma was admitted to the Union in 1907, certain territorial health services were already in existence. These were continued as a State Health Department on a part-time basis until about 1917 when full time services began.

A superficial estimation of the state of health of the people of Oklahoma might be obtained by a comparison of the crude death rate for the year 1949, which was 8.0, with the national figure of approximately 10.0 per 1,000. These figures, without further consideration, might tend to make us complacent, for a crude death rate of 8.0, would indicate that the average age at death exceeded 100 years. The crude death rate must, however, be adjusted to a standard population. The very young population in Oklahoma tends to give a distorted impression of mortality rates. If this adjustment were done, the Oklahoma figures would not be so favorable. Age specific death rates would indicate that we have, in fact, higher rates among the younger population than many other parts of the nation, but lower rates in the older age groups. Since most public health measures are mainly directed against diseases which principally affect younger age groups, we can conclude that there is still need for considerable progress in public health in Oklahoma.

Chronic Diseases

It has been estimated that each year chronic diseases cause nearly a million deaths and one billion days of disability in the United States. The victims occupy approximately three-quarters of a million hospital beds and receive the equivalent services of at least one-third of the doctors. Over 25 million persons suffer from some chronic ailments, such as heart diseases, arteriosclerosis, high blood pressure, nervous and mental diseases, arthritis, kidney disease, tuberculosis, cancer, diabetes, asthma. If Oklahoma has its proportionate share, 375,000 people are suffering from these diseases. The National Healthy Survey (USPHS) has estimated that there are seven million cases of rheumatism. Heart disease, diseases of the circulatory system,

and allergic diseases each accounted for more than three million cases. Considering mortality rates, heart disease leads the list with 385,000 deaths, cancer is second with 165,000 deaths, and hypertension and arteriosclerosis third with 150,000 deaths.

The Oklahoma State Department of Health reports 18,680 deaths occurring within the State in 1950. Of these, 5,860 or 31.3 percent were from diseases of the heart, 2,561 or 13.7 percent from cancer, and 2,161 or 11.5 percent were due to vascular lesions affecting the central nervous system.

The basic approach to chronic disease must be prevention as in other fields of public health. The most effective preventive measure is the promotion of optimal health. This involves strengthening of many of our current programs and extension of such programs as nutrition, mental health, housing, pre-school and school health, correction of defects, periodic examinations, etc.

The marked success of our maternal and child hygiene programs suggests that health conservation of adolescents and adults might be equally fruitful. A new development, in certain areas, is the health protection clinic or the multiphasic screening clinic which involves the periodic examination of well persons who do not obtain continuous care and supervision from their family physician. Such clinics permit the early detection of many diseases by simple screening techniques which include (in Massachusetts) a complete history, recording of blood pressure, weight, height, pulse, temperature, respiration, 70 mm chest x-ray, blood test, urinalysis, and vision and hearing tests. The patients with positive findings are referred to their family physician. Such a clinic would eliminate the individual programs for mass survey for tuberculosis, diabetes, and cancer. Special programs for schools and industries, are proving effective. Provision for home care, convalescent and nursing care, and rehabilitation may be integrated with such a program where institutional facilities are inadequate. Oklahoma has already made an excellent start against one chronic disease through the initiation of county-wide surveys with mobile x-ray trailers to find cases

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partment, working with the Committee of the American Public Health Association, devised a plan which grouped the 77 counties into 32 districts with an average population of 73,000 persons each. Only seven of these districts are single county units; 13 are made up of two counties each, 8 of three counties each, 1 of four, 2 of five counties each, and 1 of six counties. That we fall so far short, however, of having organized health services within every county is, I believe, due to two important factors: lack of funds and lack of trained personnel. Yet our State corresponds to the national trend in this respect, for it is estimated that about one-third of the counties throughout the nation are without full-time local health departments.

The financing of local health services is rather complicated. The State Constitution permits, but does not compel, county commissioners (Excise Board) to assign of tuberculosis, but little progress has been made in establishing polyphasic clinics.

Administrative Problems

In our State only 47 counties out of 77 have an organized local health service. This situation does not exist because our State Health Department has fallen down in its planning for the adequate care of the health of the people of Oklahoma. The De-up to one mill of the fifteen mills derived from ad valorem taxes for support of county health departments. In many instances, because of competition for county funds, the local health department loses out. Owing, also, to the low evaluation and homestead exemption in many counties, if the one mill were assigned in support of public health, it would yield less than .25¢ per capita. The Oklahoma State Department of Health, starting in 1946, was given an annual appropriation by the legislature of \$300,000 to encourage the establishing of full-time public health service and to aid in financing county health departments. If this sum were equally divided among the counties, based upon their population, it would amount to no more than .12¢ per capita and average \$4,000 per county.

Thus, under our current State Constitution, in many of our counties, from state and local tax sources not more than .35¢ per capita can be made available for public

health work at a local level. It is indeed regrettable that constitutional revisions have not been authorized by the voters so that local health departments in Oklahoma could receive a substantial share of the goal of \$1.50 per capita from state and local sources.

The Oklahoma State Advisory Health Council was created in November, 1949. The greatest challenge which faces the Council is the problem of adequate support of health programs in Oklahoma. The State Council will stimulate the organization of Local or County Advisory Health Councils and these local councils may in turn assist in obtaining up to the one mill of local revenue. I must remind you that in 30 of the counties no local revenue is assigned to support official health work, and in an additional 42 counties less than one mill is available. The correction of these deficiencies is the responsibility of a local advisory health council and not of the health department. Similarly, at the state level, the State Advisory Health Council must work toward the allotment of larger sums by the legislature in support of local health departments. The only alternative is to look toward the Federal government for increasing support. Already about 21.5 per cent of the financial support of county health departments comes from Federal sources. An increase of this proportion seems very undesirable and unlikely.

That local health councils may have a real impact upon securing financial support for health services has been admirably demonstrated by the success of the Tillman County Advisory Health Council. Until we have 76 additional county health councils equally active, the latent financial resources of the various counties will not be mobilized for support of public health. If the State Advisory Health Council could make as forceful a presentation to the legislature, our State Department of Health would have the financial backing that it so richly deserves.

The problem of providing adequately trained public health personnel is often difficult to resolve and is more or less outside the control of the local community. In 1949, at a conference in Washington, it was estimated that the United States would need to train during the next ten years an annual average of nearly 7,600 professional health workers from the following categories: physicians, nurses, engineers and other sanitary personnel, dentists, health educators, hospital and medical care administrators, nutritionists, and statisticians. It was further agreed that 29 per cent of the total number, or 2,200, should be trained in the graduate programs of accredited schools of public health.

Responsibility for scarcity of trained

workers in public health must be charged to our educational institutions. In the entire United States there are just ten accredited school of public health with only one of these (California) located west of the Mississippi River. In the southwestern section of the country, which has more than its share of public health problems with a disproportionately low economy and scarcity of personnel and facilities for provision of services, it has been necessary to send its limited personnel a distance of one to two thousand miles to receive graduate training in public health—a single exception exists for physicians at Tulane University.

The Regents of the University of Oklahoma approved in 1944 the establishment of a graduate School of Public Health. While undergraduate work in this field has been offered during the past two years and several students have completed the degree of Bachelor of Science in Public Health and Sanitation, the first graduate instruction leading toward the Master of Public Health was initiated in 1950 and five of these degrees were awarded at the June commencement, 1951. We shall not be able suddenly to relieve the acute shortage of trained personnel in public health in Oklahoma and the surrounding area but we have made a substantial start.

A new program in which our School of Public Health has been very happy to participate is the Oklahoma Field Training Station which has been sponsored by the State Department of Health, the U. S. Public Health Service, Cleveland County Health Department, as well as the University. During the summer of 1951, ten men completed a twelve-week training program. This link between academic education and on-the-job training should provide better qualified men for work as Sanitarians or Sanitary Engineers. University credit is offered to qualified students for this public health practice.

The scope and number of short courses is progressing satisfactorily. Courses in fly control, swimming pool operation, refresher course for plumbers, civil defense, nurs-

ing home operation, etc. have been sponsored jointly with the Oklahoma State Department of Health and have been highly successful with up to 150 participants in certain of the short courses. Annual meetings of such groups as the Oklahoma Association of Milk and Food Sanitarians, the Oklahoma School Administrators, and others on the University campus have given major consideration to health problems.

Because this discussion is intended to be self critical I am anxious to acquaint you with our deficiencies at the School of Public Health. Owing to a limited budget we have not been able to assemble sufficient staff in order to accept physicians or nurses as candidates for the degree of Master of Public Health. We urgently need staff members in Public Health Nursing, Nutrition, Maternal and Child Hygiene, Mental Hygiene, and additional appointments in Health Education and Sanitation. We shall be increasingly in need of independent space for administrative, teaching, and laboratory work, and additional library facilities. Expansion along the indicated lines would permit us to seek accreditation by the Committee on Professional Education of the American Public Health Association—a goal to be sought at the earliest possible date.

The Role of the Health Department In Civil Defense

It is recognized that in time of war civil defense health service becomes the *most important function* of the official health agency and after attack the *only function* of the health department.

In 37 states the recognition of the importance of this function is assured since the State Health Commissioners have accepted the post of Chief of Civil Health Services. The problems facing the health departments vary greatly from state to state depending upon its geographical location, its industrialization, and upon the existence of prime targets. A number of problems are common to all.

The mobility of our population creates a unique problem. The Bureau of the Census reported that during a seven-year pe-

About the Author

Before coming to the University in 1948, as Director of the School of Public Health, Dr. Hinman, who holds degrees from four universities, served as Chief of Malaria Control Division, T. V. A. From 1942-46 he had been Head Public Officer and Chief of Party, Inter-American Affairs, in El Salvador and Mexico. The present paper was read at the meeting of the Oklahoma Public Health Association, Oklahoma City, November 30, 1950.



riod half of our own people, or 70 million, moved from one house to another at least once. Of those who moved, half moved to a different state. In the eighth year, 1947, one out of every ten changed states of residence. Seventy per cent of the 14 million World War II veterans live in houses different from those occupied when they entered the service. Thirty per cent of them moved in that eighth year. This re-location was caused by a shifting of industry and industrial facilities during a time when the country was not seriously threatened by a hostile attack.

Now that our nation has imposed upon it the threat of direct attack, the migration of our population may be greatly intensified. The increased volume of military production being contemplated will require expansion of industrial production with resultant concentration of population around the plants. The potential hazard to our great industrial centers should hasten dispersion of industry, recommended two years ago by the National Security Resources Board. It is reasonable to assume that the southwest and Oklahoma will share in this new expansion. The mechanization of agriculture has brought about the rural-to-urban migration and this trend will probably continue. The potential threat to the sea coast and great metropolitan areas will possibly lead to a small but significant voluntary migration of the more mobile segment of the population. Thus, whereas Oklahoma has had a steady decline in its population during the past two decades, we are probably faced with a direct reversal of this trend. In addition to the more or less orderly migration referred to above, we must recognize that atomic attack upon a great metropolitan area will necessitate the sudden movement of many hundreds of thousands of individuals, many of whom may be injured.

It would be folly to pretend that atomic attack could not come to Oklahoma. Within the United States there are fifty cities with more than 200,000, a minimum which is likely to be considered a good atomic target. In addition, certain special installations would be of prime interest to the enemy. Since only one of these 50 cities is located in Oklahoma, it would seem that our prime concern in civil defense would not be directed against atomic attack. Yet, preparations must be made for the care of traumatic cases. If Detroit were attacked, surgical teams might have to be brought from as far as Texas. Similarly, less critically injured might be evacuated to remote areas.

Planning for all possible contingencies is essential. The key administrative set-up is of cardinal importance and it has been recommended that military people should

not be used since they will inevitably be lost in a serious emergency. Secondly, it is urgent that there be a thorough familiarity with all facilities and stored supplies, particularly near target areas. A third essential is the initiation of mutual aid pacts between nearby cities. Mobile support should also be provided.

The shortage of trained public health personnel has been referred to previously. This will undoubtedly be intensified by (1) military build up, (2) civil defense itself, (3) aid to other countries, and (4) need to expand services for our own people for an indefinite period. The maintenance of a high level of health among the civilian population cannot be over-emphasized.

The overriding problem is the maintaining of a state of readiness for a situation which we hope may never arise. This work will have no glamor associated with it. Volunteers will have to give up nights, week-ends, and holidays. The public health worker must do double duty.

We might briefly speculate as to the impact of any large scale migration upon the current program of our already overburdened Health Department. Let us assume that an orderly migration of 25,000 people occurred into one of our counties over a period of one year. We cannot assume that the local health department will have added five extra public health nurses, one or two trained sanitarians, and the equivalent of the half-time of a physician. The congestion of housing, the strain upon schools, public water supply, sewage and refuse disposal, sanitation of milk and food supplies, recreational facilities may well lead to a near breakdown of the existing health service. The impact of congestion upon respiratory diseases is recognized, but the introduction of unknown carriers of typhoid fever, tuberculosis, and venereal disease, cannot be evaluated in advance; but these potential threats to the school, maternal, and child hygiene and sanitation programs must make us all uneasy.

The training of personnel is of the greatest importance. Already our colleagues in the medical profession have participated in short courses and seminars dealing with the surgical care of the casualties and also monitoring for hazardous conditions. First aid courses are under way and certainly should be encouraged because of their value in peacetime as well as in wartime. I would like to suggest that every category of professional health worker should be given certain general training associated with possible attacks, and in addition, specific training in techniques appropriate to his professional interest. In the former category, I would include techniques of epidemiological investigation, the reporting of communicable disease, refresher work

in proper precautions in taking of laboratory specimens and their care and handling while being transmitted to the laboratory, special precautions in the event of atomic explosion, monitoring of hazardous situations. The specific training for health officers would include in addition, care of casualties; but more particularly, consideration of organization and mobilization of health resources at the local level. Industrial health services will have to be strengthened. Safety and accident prevention measures must be emphasized. Working with the local county medical society, a co-ordination of the health resources with provision of medical and hospital services must be accomplished by the health officer. Adequate stockpiling of supplies must be achieved.

Other health personnel will have to be used in local training programs. If the sanitarian's time is insufficient for routine inspections of restaurants and dairy farms, more group education will be necessary. Food handlers' schools have received rather wide acceptance but are held at infrequent intervals. With suddenly increased population and food establishments, continuing food handlers' schools will be necessary. Cleveland County Health Department initiated such a service during 1950 and single two-hour sessions are offered every two weeks. These will not be substitutes for premise inspection but the latter may be expedited and even performed at longer intervals. In dairy sanitation, occasional group conferences may prove helpful. These provide the very great advantage of audio-visual aids. Similarly the sanitarian may utilize films in connection with private water supply and waste disposal, insect and rodent control.

Sanitation personnel may need special training in detection of radiation in water supplies, food supplies, and in decontamination procedures. If food is stockpiled it must be protected against the natural elements (climate), biological contamination, chemical contamination, radiological contamination, insects and rodents.

The nurse may likewise be called upon to make more extensive utilization of community groups if increased demands are placed upon health departments. The maintenance of a high level of nutrition among the people generally and especially of mothers and children, the dissemination of new knowledge concerning various aspects of civil defense can be accomplished in part through the classroom, clubs, etc.

The accepted fundamental principle of civil defense is self-help. We in the State of Oklahoma cannot await help from the federal government. Neither should County look to the State government. The Civil

Defense group of the National Security Resources Board is engaged in planning, and expects to release a new manual on "Health Services" in the near future. Local organization is the only thing upon which we can depend for protection of our families. As health workers it behooves us to take real leadership in this endeavor. All individuals from the senior primary grades up must be given some instruction in the basic principles of personal (individual) hygiene, and group (community) sanitation, first aid, and methods of evacuation. The application of proper public health measures are equally important in the event of attack with the care and rescue of casualties.

The absence of organized health services in over one-third of our counties in Oklahoma constitutes an especial hazard from the point of view of civil defense. Not only is the occurrence of many carriers and cases of communicable diseases completely hidden but such ambulatory individuals mingle with the population of our organized counties.

In retrospect it would appear that the problems associated with or intensified by the migration of large numbers of people, to or through our State, constitute a much greater public health problem than the threat of direct atomic attack or the utilization of any other special weapon of warfare within the State.

Summary

Despite the splendid accomplishments in public health by our state and local health departments in the conventional public health programs, we should not be complacent. There is need for consolidation of any gains made to date and their extension to every county of Oklahoma. There is also great need for expanding into fields which have been barely scratched. Chronic diseases represent the greatest challenge. From an administrative point of view, adequate financing of local health work and the provision of trained personnel appear to be the greatest deterrents to the provision of an acceptable health service to all of the people of Oklahoma. These deficiencies must be charged to the populace of our State.

In this troubled era the problem of greatest importance to the individual health worker in Oklahoma is the role he or she should perform in civil defense. It is believed that probably this will be an intensification of the current routine day-by-day activities through a necessary stretching out of the trained personnel over and above the devoting of time to the preparations for emergencies which we hope will never arise.

Alumni Participation in the University Archival Program

By Gaston Litton

In the half-century since the first graduates left the University, many alumni by the dint of hard work and resourcefulness have brought distinction both to themselves and to their Alma Mater.

Now, represented by individual collections of mementoes and papers reflecting their careers and accomplishments, these alumni are returning to their Alma Mater. Special facilities have in recent years been developed within the University Library; specifically a Division of Manuscripts has been established which receives and cares for these collections of archival materials. Our alumni richly deserve the honored places which are being provided for the permanent housing of their papers.

In the University Library these papers are already forming a vast archival assemblage representing contemporaries who have in common their collegiate background and their professional success, each in his respective field. The collections include every type of archival material—manuscripts, typescripts, bound volumes of handwritten material, handbills and other imprints, sound recordings, photographs, slides, maps, posters. They take the form of correspondence, diaries, journals, reports, membership lists, petitions, minutes of proceedings, certificates and diplomas, ledgers, and similar documents.

The papers of each alumnus are kept together and are identified by his name. Within the collection, folders and envelopes, labeled and placed in sequence, bring

about order, neatness, and accessibility. Here, these individual collections of papers of O. U. alumni, along with the records of other friends of the University, stand as fitting memorials to their donors. Under the conditions which the donor specifies at the time of their transfer, these collections become available for scholars and others for monographs, biographies, and other studies. Already, several master's theses have been written from these collections and considerable reference has been made to them by special writers.

Among those alumni who have made major transfers of records are Robert S. Kerr, Orel Busby, George Howard Wilson, C. M. Feuquay, and Mary E. Grimes. Smaller collections containing items of special significance to Oklahoma's history and contemporary life have been donated by John McKoy Campbell, Robert E. Jackson, and other University graduates and former students. From time to time the names of all alumni who are represented here by their papers may be published. We want now to report to you the genesis of the archival program and the interest of your University in receiving into the Library such files of papers and other records representing all alumni who have had special interests, made their mark in life, thereby bringing honor to themselves and to their Alma Mater. Correspondence on this subject directed to Gaston Litton, Division of Manuscripts, University of Oklahoma, will receive immediate attention.

About the Author

Dr. Litton holds two degrees from the University. His doctorate was taken at Georgetown University in 1942. He is Professor of History and University Archivist. Under his direction, the University is becoming an important depository for documents and archives of every sort relating to the life of the people of Oklahoma.



Milton

and the Modern World

By Kester Svendsen

My purpose is to conduct an inquiry into the meaning which the life and writings of John Milton have for the modern world. I must say something of the professional Miltonists, but I wish chiefly to offer some suggestions of the senses in which his major poetry is or can be significant to general readers now. His experience shows many parallels to ours, and there are dangers in the literal exploitation of them. I wish to urge the inadequacy of two very popular approaches to the study of meaning, the biographical and what may be called the bargain-hunting approach, and then to speak of *Paradise Lost*. My indebtedness, even for platitudes, to three hundred years of Milton's readers will be only too apparent.

The relation of dead authors to living times is always, when they are taken aright, indirect and inductive, even with so apparently dogmatic and didactic a poet as Milton. In the greatest poems, nothing is ever settled; the issues, as in life, are always *in* solution, never completely solved. Early critics of Milton used to debate whether *Paradise Lost* was a tragedy, never realizing that all serious poetry is tragic, again like life, the only question being whether it is high tragedy like *Paradise Lost*, or low tragedy, like the *Faerie Queene*. Yet this high tragedy exists in a framework of cosmic optimism. At the conclusion of *Paradise Lost*, after the bitter suffering of the fallen Adam and Eve, they are so comforted by the prophecy of the redeemer that Adam thinks his sin a *felix culpa*, paradoxically, a fortunate fall. Satan's victory is only partial, as it must ever be if man's life is to have any meaning; and God's punishment of Satan must be only partial if man is to live as a free moral agent.

A poet's gross meaning for another age is, however, compounded of many levels of interest; and we must consider some of these before reading Milton in context. Let us first scan his effort and remark its historical implications. He wrote elegies and pastorals in Latin and English, but different from any before him. He wrote sonnets, but not love sonnets like the sickly effusions of the Elizabethans. He wrote

masques, but of deeper moral content than the frivolous posture-pieces that were his models. He wrote what in the latest edition is fourteen fat volumes of personal, historical, philosophical, theological, and brutally controversial prose. He burned out his eyes defending the English people against continental attacks on their execution of Charles I and their establishment of a commonwealth. His prose masterpiece, *Areopagitica*, virtually unnoticed in its own time, has been invoked at nearly every stage of our civilization as the most moving single document in the history of free speech. And finally, after nearly half a century of long choosing and beginning late, when he was blind, sick, and rejected, he wrote three poems, unlike any before them. His *Paradise Lost* is the greatest epic in English, a poem equal in subject and design to any in the world, and inferior in execution only to those of Homer, Vergil, and Dante. Since his time, every major poet in the language has felt his hand, or the back of it. And to bring us closer home, as Huxley observed in the late nineteenth century, it was *Paradise Lost* and not the Bible which fixed the popular knowledge of Satan, the war in heaven, and the fall of man.

A popular approach with the professional Miltonists, though one which is ultimately unliterary, finds the poet's meaning in his biography, the reports we have of his life and work and their effect on later times. Readers of this sort find much to encourage humanity in the course of Milton's life. His solution to the problems of experience common to all time has seemed of importance to these readers not because he draws a blueprint but because he provides an inspiration. The blind old republican, defying tyranny out of one side of his mouth, and, if one may distort the picture, dictating *Paradise Lost* out of the other, has been an encouragement to many who have little to defy and nothing to compose. By the end of his life he had lost a great deal of his confidence in human institutions, and his disillusionment with the English people is patent. But he never wavered in his belief in a providential deity

and in the dignity and sanctity of individual man. We have moved beyond him politically; but he was part of what the Puritans brought to this country and ultimately deposited in our Declaration of Independence and our Constitution. But even the professional Miltonists do not press this too far, for Milton was no democrat. As a Christian humanist, he concerned himself deeply with the freedom of the individual, but only on his own terms, those of an intellectual aristocrat. He was no leveller; his contemporaries Lilburne and Winstanley, with his pathetic diggers, were far more democratic than Milton.

The biographical approach can turn up some significant and qualifying considerations, for it was common with Milton to convert a private grievance into a public issue. And what is peculiarly exasperating to readers repelled by Milton's intellectual arrogance, he was always right. The last refinement and the greatest weakness to the biographical approach is the tendency it encourages in the reader to consider the poetry as autobiography, spiritual or otherwise. Milton's first wife, Mary Powell, is scarcely cold in her grave again after having been disinterred by the biographical critic to explain Milton's attitude toward Eve before she is dug up once more to account for his treatment of Dalila in *Samson Agonistes*.

If we turn from this to seek ways in which Milton's world and the world of his poems touch ours, we will find ourselves in good intellectual company. In the nineteenth century *Paradise Lost* was thought a monument to dead ideas, for some readers saw only the outworn cosmology, the crabbed theology, and under the eyes of the scientist, the clumsy mythology of a tribal deity. Now in the twentieth we are surprised to discover how modern Milton is, one recent critic, Cleanth Brooks, even going so far as to say that "the view of sex expressed in *Paradise Lost* is in certain startling ways reminiscent of that of D. H. Lawrence." I should have said anticipatory instead of reminiscent, but Mr. Brooks no doubt read his Lawrence first.

A very respectable notion of how to get

at an author's meaning is that which hunts down such parallels and exploits them as evidence of antiquity forgot, of the truth we must re-discover and apply. On the highest level, this approach, sanctified in part by the current scholarly craze for history of ideas, would uncover Milton's interest in political freedom and in man's individual moral responsibility, would ferry these back to Aristotle and forward to similar concerns of our own time. On a lower level, to those who seek immediate, portable values in literature, Milton is a probable storehouse of wisdom, like Shakespeare, Dante, Homer. And under that view, the way to get his meaning for our time is to cull out his remarks on those features of experience common to his generation and ours, and to wag the head over them. This is, of course, a crude reaction; and our high-level semi-humanists do not use *Paradise Lost or Comus* for a kind of *sortes Vergilianae* whereby they can break open the book and apply to our own frantic world what they find said about the earlier one. They do not go to Milton as bargain-hunters for practical advice or encouraging generalizations. They are concerned rather with the poet's modernity, as though it were a particular merit for him to have anticipated us. One quarrels not with the intention or the interest of these studies, for they *are* concerned with values, but with their relevance. To reduce Milton, or any poet, to a section of Bartlett's familiar quotations is sub-literary; it has almost nothing to do with literature, except perhaps to encourage the superstition of masterpieces.

I wish to suggest that the clearest and best way to whatever values Milton has for us is through the experience of reading the poems. This is not so easy as it may sound, particularly since our toyshop substitutes for reading have all but blunted our perceptions to anything except violent expression. Does not every progressive university sponsor a reading clinic to improve the comic book vocabularies of its freshmen? If this proposal about the experience of the poems seems only too obvious, let us begin with a fragment from what is probably to modern taste Milton's most forbidding poem, *Lycidas*, printed in 1637 at the end of a volume of elegies got up by friends of Edward King, a Cambridge cleric and poet-aster drowned in the Irish sea. For centuries prior to the new illiteracy, readers were familiar with both the pastoral tradition, in which the issues of life are simplified into standard patterns under the imagery of shepherds and stylized rural life, and classical mythology, in which, as we have been told of late, man's unconscious mind reveals itself in archetypes. Milton capital-

About the Author

"*Milton and the Modern World*" was read as a University Public Lecture. The present paper has been abridged. Dr. Svendsen came to the University in 1940 from the University of North Carolina where he had received his doctorate in that year. He has contributed many papers to the field of Miltonian scholarship. As a hobby, Dr. Svendsen is the University's leading authority on the game of chess though not always the best player. He is also Professor of English.



izes on both sources heavily, in a manner which has not subsequently been improved upon and the true sense of which was long lost. Samuel Johnson, who had as little regard for Milton's pastoralism as for his politics, found the poem disgusting. Tennyson considered it the very touchstone of poetic taste; Mark Pattison called it the high-water mark of English poetry. Other critics have described it as an unemotional tribute to King in which Milton is really concerned with his own career and the possibility of his drowning too, as an insincere finger exercise, and as anything but a masterpiece.

The meaning of the poem emerges from a reading of it in which the pull of contrasts is recognized, defined, and felt in its many manifestations. The poet invokes the muses, laments the loss of Lycidas, questions the use of poetry and/or priesthood, moves past the answers of both Apollo and St. Peter, and reaches a suspended conclusion in which the issues are only partially resolved. Milton, as he often did, works within a perfectly familiar structure, creating a substance that fills the pattern, preserves its superficial form, and yet moves beyond it. As John Edward Hardy has shown, once and for all, the poem is not really about King nor about Milton, though King is the occasion and Milton as a dedicated poet an inevitable comparison. The poem is about the relation between two world-views, the pagan and the Christian, expressed in part through the figure of the shepherd in his double function as poet-priest; and so the poem is also about the nature and function of poetry.

Now for the passage. The speaker in the poem has asked the nymphs where they were instead of at their accustomed posts, where they might have saved Lycidas.

Ay me, I fondly dream!

Had ye bin there—for what could that have done?

What could the muse her self that Orpheus bore,

The muse her self, for her enchanting son

Whom universal nature did lament,

*When by the rout that made the hideous roar,
His goary visage down the stream was sent,
Down the swift Hebrus to the Lesbian shore.*

Even in that imperfect reading, the pulse of the lines, the play of sound and sense, the myth imbedded, the critical repetitions, these are all apparent. If it is nothing else, it is a nice noise. Is this its meaning to the modern world? Is it merely an ornament to the central thought of the poem? I select this passage because it contains little opportunity for bargain-hunting, no packaged philosophy.

We find the meaning in context. We are aware of the unresolved moral and aesthetic issues which appear in the poem, indeed, are the poem. The story of Orpheus functions in this creation of tension precisely because he is a poet, because he is part of the pagan world view, and because, here at least, he winds up in the water, like Lycidas. The reader remains, not with a sentence in his pocket to show what the poem means, but with a unique set of perceptions and understandings created within him by everything that happened in the poem. These, even in this fragment, ramify almost infinitely.

My students, and they are almost the only readers of Milton I know, are always relieved when we reach *Paradise Lost*, for it is based on a story they have known all their lives, and the issues are perfectly clear. On one side are God and the good angels; on the other Satan and the bad angels; in between Adam and Eve. They already know how the story comes out, they think; and so they enter with some complacency. Twenty lines into the poem they begin to worry; and after the first two books they are confusion worse confounded.

For Milton begins with the assertion that he will pursue things unattempted yet in prose or rime; and by the end of the second book he creates in Satan a figure of what seems indomitable spiritual and physical courage. Milton has done his work so well

that readers from the time of the romantics have called Satan his hero, and some have even accepted the view that Milton himself is the hero. Had he been in the garden of Eden, they say, he too would have eaten the apple, and then sat down and written a pamphlet defending himself.

I should like now to suggest what I think happens in the poem and to show how and why the experiencing of the poem is its most significant meaning to modern man. Milton's subject is the loss of innocence, a theme that occurs, I think, in every literature and in every literary form. Milton's version differs from all others because he saw in Adam's story the constant tension, the ancient, agonizing division of man's nature against itself. To tell this story of good and evil, he ransacked the treasure stores of antiquity to write what in effect is a spiritual history of man. In his view, though matter and spirit ultimately differ only in degree, man is dualistic. Adam is a creature of soul and body, of spirit and flesh, of reason and passion. The two exist in harmony only so long as reason is in control; the flesh and passions are not evil, only subordinate. This dualism, under whatever labels or motivations we describe it, survives in our own society, just as does our working belief in free will, in spite of the forms of determinism hatched up for us by Marxians, scientists, and those professional headshrinkers, the psychiatrists. For him, the human use of human beings was the Christian use, not entirely orthodox perhaps, but Christian in its insistence on man's moral responsibility to choose between good and evil. The temptation motive dominates his poems. We have it in *Comus*, with good winning a qualified victory over evil, as the Lady is rescued from the spell of Comus. We have it in *Paradise Lost*, with evil winning a qualified victory over good, as man falls. We have it in *Paradise Regained*, as perfect man resists temptation. And we have it in *Samson Agonistes*, as man is tempted, falls, and is regenerated.

The epic quality of *Paradise Lost*, superficially defined in the traditional heroic form of the poem, may more truly be seen in the tremendous range of moral issues involved in the primary struggle between good and evil. Thus Satan, the negative force in the universe, wars against God, the positive; but the war in Heaven is also anticipatory of the struggle between affirmation and negation in Adam's own soul. He and Eve begin as demigods and end as everyman and everywoman. The sin which destroys their ideal qualities humanizes them. It is a sad commentary on the corruption of our own moral structure that we

find them more attractive after they have fallen and are more like ourselves.

Adam falls not because he eats a poor apple or disobeys a silly test-command, but because he eats in disobedience, because he allows the passions, rooted in the flesh but expressed through the mind, to overcome his reason. Right reason is not just reasoning, to be turned out the way truth tables in symbolic logic have been turned out by robots. For Milton, as for any Christian humanist, it is a "kind of rational and philosophic conscience which distinguishes man from beasts and which links man with man and with God." Its meaning for today is to be found in our perception of the ways in which it is expressed and ramified in the poem. It pre-supposes a final authority which for Milton justified his cosmic optimism. For all practical purposes, we have lost that final authority and have substituted an equation in physics.

Milton perceived that the story of Adam and Eve, the oldest and most familiar to his people, was capable of the most nearly universal analysis of man's nature and his way of life. And here one must emphasize that Milton makes that analysis as a poet. In a prose treatise, *The Christian Doctrine*, he studied the problem as a theologian. *Paradise Lost* is not a redaction of that, a sugarcoated, prettied-up version. It is an independent work of art, to be experienced through the sounds and meanings of the words, through the imagery and symbolism, through the characters and their conflicts, through the whole world made by the poem. It is the experience of good and evil in cosmic as well as in human terms imaginatively created by the reader in approximation of what is there before him in print or sounding in his ears, that constitutes Milton's meaning for the modern world. We grasp the full range of human emotions and human values; we are concerned in a conflict of utmost significance to man; we absorb the distillation of whole cultures—all harmonized into structure through the intensifying force of imagination. If we have learned nothing else in twentieth century criticism, we have recovered the realization that how a thing is said is part of what is said.

Consider this passage in Book I of *Paradise Lost*, in which Mammon, one of the fallen angels, is described in the experience of Mulciber. The surface statement is that Mammon was erroneously called Mulciber by the Greeks. But what happens in the passage relates in several ways to the major themes of the poem; and the art is in part this synthesis.

And in Ausonian land

Men called him Mulciber; and how he fell

From Heav'n they fabled, thrown by angry Jove

Sheer o're the Chrystal Battlements from morn

*To Noon he fell, from Noon to dewey Eve,
A Summers day; and with the setting Sun
Dropt from the zenith like a falling star
On Lemnos the Aegean isle.*

Imbedded in these drumming decasyllabons is a whole story, not here just an ornament, not window-dressing, but a re-statement, a new view from a new angle. The correspondences between Mulciber's fall and Mammon's is paralleled by those between Mammon's and Satan's. We move backward to Satan's fall, forward to Adam's. Mammon, Mulciber, Satan, cast out of Heaven; Adam and Eve, out of Eden. The falling star suggests not only short lived brilliance but also Lucifer the star of morning and his fall. The Biblical echo in a passage of pagan mythology is one way of keeping up the inner conflicts of the poem.

If we go through the whole poem sensitive to these implications, constantly organizing and re-organizing the imaginative creation, which itself involves moral issues and values, we are getting Milton's meaning for the modern world. All other ways are fragmentary or preparatory. We cannot perceive everything, visualize every image, respond to every pattern of sound; but we get some, and the residue of these gives shape and color to later readings.

The situation with Satan illustrates this admirably. He is a temporarily organized chaos opposed to cosmic order, to the army of unalterable law. He is, as Milton calls him, an archangel ruined, created for us by symbols and figures of magnitude, power, rebellious courage, and profound though perverted intellectual power. In brief, he is evil in all its manifestations, not a cheap evil easily scotched; but evil with an appeal to every mind and taste. Man wins and loses, loses and wins, but eventually shall win forever, and even in his defeats gains a kind of victory. Milton plays back and forth in cosmic identities, between Satan as symbol and Satan as serpent, man as potential god and man as all too human. It is in the perception and the experience of this play that the meaning of *Paradise Lost* resides.

Good Representation

Enrolled in the 1951 summer session of the University of Oklahoma Biological Station, Lake Texoma, were students from Arizona, Arkansas, Indiana, Kansas, Louisiana, Missouri, Ohio, Oklahoma, Pennsylvania, Tennessee, and Texas; and from China and Iraq.

Organizing a Small Business

By Francis R. Cella

One of the characteristics of our people is to seek independence with respect to a means of livelihood. This is expressed in many ways, but for a considerable part of our people it is expressed by working for themselves in the ownership of a small business. While there may be other choices which would be more desirable, people tend to assume that a comparatively limited training and capital are required to operate a small business. They appear to believe that a small business is the most likely medium within their grasp for securing a method of living which frees them from reliance upon and subservience to others for their livelihood. The extent to which people turn to organizing a small business as a livelihood is indicated by the 8,315 new retail and service establishments which were started in Oklahoma during 1950.

In considering the possibility of starting a small business, people are too prone to overlook the highly competitive aspects of such organizations. They see only the relatively simple requirements for starting a small business and are encouraged to undertake such an enterprise with no further examination of the problem. However, a notion of the competitive aspects among small business establishments is indicated by the 8,428 Oklahoma retail and service firms which failed during 1950. This high failure rate is evidence that potential proprietors must have much more than a desire to be a small businessman before they can hope to achieve success.

Functions

Although the concept of what is a small business extends over many lines of activity, this article will be devoted to retail and service lines since they are predominant among the small business firms. The first aspect of the problem of establishing a small retail or service business deals with the functions in which the small business proprietor must engage. These are rather diverse and a successful proprietor must be aware of what they include.

The small businessman must be able to buy properly. He must be able to judge demand for products from contacts with his customers. Sales records are of assist-

ance in this function, but a lot of common sense is also required. Unless the small businessman judges demand properly, he will crowd his shelves with products which are not salable and build up a huge investment in inventory. Over-sized inventories lead almost inevitably to business failure. The retailer must perform an important selling function which will complement his buying abilities. Through coming in direct contact with consumers, he can do much to influence demand and thereby keep his goods moving. Although he is often criticized as being a mere clerk, he can influence demand by proper display of goods, salesmanship, advertising, thereby vindicating his judgment in buying.

On the basis of estimates of consumer wants, the retailer places orders with wholesalers or manufacturers. He may make little effort to seek out sources of supply, but a successful retailer will aggressively hunt for better sources, and even develop them. When he purchases his merchandise, he must store the goods so as to be accessible to consumers. If he purchases large and varied stocks of goods, he relieves consumers of the need for anticipating their wants far in advance and of storing the goods at home.

The retailer also performs an essential function in dividing. Since the consumer buys small quantities, the retailer purchases large amounts and then divides them into smaller packages for individual sale. Much of the activity of retail clerks is devoted to dividing and packaging merchandise, so the small businessman must plan for the efficient execution of this function.

There are a variety of other functions which the small businessman must consider and execute properly if he is to be successful. Extension of credit is a significant function because a large portion of sales are made on a credit basis. The successful retailer must be equipped to provide credit on a sound financial basis. He must be prepared to assume the risk which is involved in the ownership of goods. The selections which he has bought may not please customers, fashions may change, prices may drop, goods in stock may spoil

or prove unsalable, or they may even be destroyed by a catastrophe. The retailer must be prepared to meet these hazards as part of his business responsibilities. Transportation costs from the wholesaler or the factory may be assumed by the retailer. Also, he may assume the cost of delivering goods to his customers. This makes transportation expenses an important function to deal with and consider.

Finally, there is the record-keeping function. Many retailers keep such meager records that they are unable to accurately analyze their business or to determine proper policies. On the other hand, some small businessmen keep elaborate records of purchases, stock on hand, sales and expenses. The successful retailer must keep records for the purpose of paying bills, collecting accounts, paying taxes, and determining his financial status at any given time. A simple but properly maintained system of records is an essential characteristic of each successful small businessman.

Methods of Operation

Retailers in general may be divided into five main classes on the basis of services rendered and methods of operation: (1) service stores, accepting (open book) credit and making free deliveries; (2) stores selling on the installment plan and making free deliveries; (3) cash-carry stores which neither accept credit nor make free deliveries; (4) self-service stores which dispense with salesmen and have the customers select their own goods (may be cash-carry or credit); and (5) wagon retailers who sell and deliver goods to their customers on regular routes (either on a cash or credit basis). In giving consideration to each of these services and methods of operating, the small businessman is influenced by a number of factors which bear on the problem. These factors must be carefully weighed and decisions made as to the particular type of operation the small businessman is prepared to embark upon.

Open-book credit is convenient because it saves the bother of paying for each purchase separately. Installment credit helps people to make large purchases and allows them to use the goods while payments are

being made. Delivery saves time and inconvenience to consumers. Some people want these services and others do not. The common assumption is that such services add to the expense of retailing. It has been argued that credit-delivery service does not increase the retailer's expense. It is said that telephone orders are more evenly distributed throughout the day and the week than are customers who visit the store, so that salespeople are more evenly employed. Orders can be assembled and sometimes delivered when there are few customers in the store. Delivery involves expense for labor and operation of trucks. The cost of delivering a package may vary from 4 to 15 cents, depending on the size of the city, density of deliveries (number of stops per mile), size of packages, and type of goods. The average for department stores may be about 10 cents. Delivery costs for various departments average from a fraction of 1 per cent to 3 per cent. Average expenses for most types of stores are less than 1 per cent, but many packages are carried by the buyers, so that the cost is higher on goods delivered.

Sales on credit involve expense for bad-debt losses; for interest on money used in carrying accounts receivable; for time and information used in passing on applications for credit; for bookkeeping in making out sales slips and keeping customers' ledgers; and for the making of collections—labor in sending out bills and collection letters, postage, time of personal collectors, and expenses for collection agencies or lawyers. It is hard to arrive at the total cost of these items. Most stores keep records of losses on bad debts, and the interest on the capital used to carry accounts receivable may be estimated, but few stores keep a record of the extra labor involved in keeping accounts and making collections. Bad-debt losses on open-account credit sales are usually less than 1 per cent; losses on installment credit sales are usually higher because poorer risks are accepted (as the goods are usually security for the debt) and because the credit runs for longer periods during the course of which the buyer may meet with adversity.

In self-service stores goods are placed on tables, shelves, or racks, and plainly marked with their prices. The customers pass through the store, select the desired goods, and pay the cashier as they leave. No salesmen are required. A cashier and clerks to replenish the stock on the shelves and keep the store in order are all that are necessary, except those who guard against pilfering and do the work of purchasing, supervision, and general management.

Problems of the Small Store

Since sales are not large, the individual purchase orders are so small that the store

About the Author

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cannot buy in quantities sufficiently large to get the best prices. Many manufacturers, in order to encourage quantity buying, offer price reductions which roughly reflect the savings made when business is handled in larger blocks. Furthermore, because the cost of servicing them is relatively high, some sellers do not solicit the trade of small businessmen and thus limit their sources. Because whole salers have a variety of goods in their lines and because an order of small quantities of each variety may add up to a sizable order, wholesalers are the natural source of supply for small buyers.

The operator of a small store is harassed by many duties. Buying is one of many tasks and the operator cannot be a specialist in all. By specializing on certain limited lines, however, he can master them. Further, he is closer to, and more intimately associated with, his customers—he knows them personally and can be guided in his buying by personal knowledge of their tastes. The large-store buyer has to use more elaborate records and statistics to get the same results.

Finally, the small-store operator can concentrate his purchases on a minimum number of supply sources. If his small volume of purchases is divided among several sources he is a small buyer to all of them. If it is confined to few, the small buyer may become a profitable and valued customer of each.

The small store, having but a limited group of employees, cannot hire specialized and skilled personnel for each task and therefore cannot have an elaborate division of labor. Owner as well as employee must be a jack-of-all trades. Specialists are not available to trim windows, write the advertisements, study the layout, buy each line of merchandise, pass on credit, or for store maintenance. The proprietor himself must therefore have varied ability. But a variety of tasks to be accomplished keeps the proprietor interested and alert. He needs employees of greater than average ability and there is less chance for them to become dulled by automatic routine.

The absence of specialists is not in itself a handicap, for it means that things are done personally and without formality. Thus there is less overhead than is found in

the larger establishment. Instead of by forms and systems, orders can be transmitted by word of mouth. Supervision is personal and direct. Management is personal in a one-man-operated store. Records need not be elaborate. The absence or meagerness of records is often a handicap, but some lack of red tape is an advantage in that it reduces the costs of keeping records and maintaining the system. A customer complaint is handled by the owner, adjustment made, and the refund given to the customer without intervention by a claims clerk, the making of a report, and the issuance of a credit memorandum.

The incentive of owning one's own business and keeping all profits is great, but it does not always prevent laxity. Retailing may be a lazy man's vocation, but lazy retailers usually fail. Self-discipline and drive must be substituted for the orders which keep an employee active and alert. The smaller retailer must not only see that things are done, in most instances he must also do them.

The operator of a single store can keep abreast of changes by the simple expedient of agreeing with himself to do so. An experiment need not be delayed because of fear of the precedent it may establish, or consideration of how it will be applied by subordinates. The question is: "Will it work here for me?" But to be able to make wise policy decisions, there must be ideas, imagination, vision. To stimulate him, the independent merchant has coming to his desk the promotion schemes of manufacturers whose products he stocks, and of wholesalers interested in his success. In addition he has available an increasing number and much improved quality of trade papers which report to him what others are doing. The departments of Marketing, Management, and Accounting in the College of Business Administration, at the University of Oklahoma, offer courses which train students to deal with all aspects of these problems.

Store Location

Selecting a proper location for a small business has much to do with the eventual success or failure of the enterprise. Many business failures are caused by locating an establishment where a sufficient volume of

business is just not available. No amount of ability can overcome this handicap and many of the failures referred to above represent repeated failures of an establishment at the same location. A series of owners will take over a particular location, each with the assumption that he can overcome handicaps which the previous owners were unsuccessful in eliminating. Each of these owners failed to recognize that the cause of failure is the location of the store alone.

In selecting a locality, the prospective proprietor should first ascertain whether the community can support such an establishment or whether there are too many such stores in the town already. He should also check the competitive area to determine whether the potential business is being channeled to nearby communities in such a manner that he cannot hope to break into the line. When a community is finally selected, the prospective proprietor should look for a site which is easily accessible to the type of customers he will seek for his establishment. Obviously, a site in a sparsely settled neighborhood or one which few people pass during the day is unlikely to bring many customers within the doors of the establishment. An establishment selling high-priced merchandise will hardly succeed in a low-income neighborhood. The presence of similar stores in a community is not a particular handicap if the present stores are not fulfilling the requirements of the community and the prospective proprietor is equipped with the technical knowledge of operating his establishment efficiently. The Bureau of Business Research, College of Business Administration, is in a position to advise businessmen concerning the communities of Oklahoma which offer possibilities for locating particular lines of business. It can also assist in determining likely sites for establishing a business in a community.

Finance

Failure to provide adequate financing has been the downfall of many small business establishments. If the organization is devoted primarily to personal service, such as dry cleaning plants, barber shops, etc., the customer is paying chiefly for a service rendered by sales clerks and buyers. The capital requirements for these establishments are among the lowest of small business lines. When the organization is a retail establishment, the merchant needs funds for investment in his stock of goods as well as for personnel, rent, etc. If his stock is turned over rapidly, the capital requirements are relatively small. A news stand might have a daily turnover of its stock; a butcher or baker would turn over his stock weekly; a retail grocer might expect a monthly turnover, while a hardware

dealer or a jeweler might turn over his stock only two or three times a year. As the rate of turnover declines, sufficient capital must be available to carry on the daily operations of the store. The merchant also needs funds if he plans to extend credit to his customers. In this way the merchant is assuming a banking as well as a merchandising function. Cash sales are a means of reducing the financial requirements of the business.

The small merchandising firm usually obtains its capital from the owner or owners. When this capital is small, the business quarters are usually rented rather than purchased. When inventories and accounts receivable require more investment than the owner possesses, he is forced to turn to an outsider for assistance. This may be a bank or a private lender, but the highly competitive character of small businesses make investments by outsiders extremely hazardous. Conversely, when the business has grown sufficiently to demonstrate managerial ability and a promise of permanence, funds may be more readily obtainable.

The trend definitely suggests that the funds for operating a small business must come from the owners and their families. Any additional funds are obtainable only in the form of short-term loans with the property, inventories, and receivables being mortgaged for this purpose. Consequently, proprietors who start operations on the proverbial "shoestring" soon find themselves hopelessly in debt and eventually bankrupt unless they are extremely fortunate. Some proprietors eke out an existence by employing members of their family and pay no salaries, their only objective being to have some money in the till on Saturday night. Under any of these circumstances, the customers suffer from poor quality of service and products, as well as a limited choice of goods.

It is very important, therefore, that the potential proprietor study the financial requirements of his venture in advance and carefully arrange for adequate funds at the outset. Common errors in financing, whereby small businesses frequently doom themselves to failure at the outset include: (1) an insufficient allowance for working capital, (2) a lack of appreciation of the need for a certain minimum volume of sales to make the business break even, (3) underestimating operating expenses, (4) failure to make allowances for initial operating losses which must be incurred while the business is being set up and established in the neighborhood. The Department of Finance, College of Business Administration, offers courses which advise students of problems of financing and business and how to deal with these problems.

An Economic and Social History of the Mid-Continent Oil Fields

Albert R. Parker, who received the degree of Doctor of Philosophy at the August commencement, 1951, wrote his thesis on "Life and Labor in the Mid-Continent Oil Fields, 1895-1945." During these years oil workers and operators developed the world's greatest petroleum fields in the rolling prairies and high plains of America's heartland. The first bonanza field, Glenn Pool in Creek County, Oklahoma, began producing in 1905. For thirty years since that date, the Mid-Continent fields have produced 60 per cent of the nation's oil. The efforts of workers and operators, have made possible the leadership of the United States in industry and in world affairs.

Today, oil field workers form the highest paid occupation group in the world; their living and working conditions are the envy of other industrial workers. According to Dr. Parker, factors which have influenced these developments are: ready markets resulting from the expansion of the automobile industry and the intervention of the United States in international affairs; the formation during World War I of the International Association of Oil Field, Gas Well and Refinery Workers of America (A. F. of L.), which, although nearly wrecked by opposition and ineptitude, led operators to start vigorous employee-welfare campaigns; the appearance of petroleum scientists and engineers, who introduced scientific methods of drilling and production, thus ended the era of waste and made oil leases properties to be lived on rather than pieces of land to be exploited and abandoned; and the emergence of the Oil Workers International Union (C. I. O.). Dr. Parker's thesis is an economic and social history of the Southwest.

Fifteen Receive PhDs

At the June and August commencements, 1951, the University granted the degree of Doctor of Philosophy to fifteen candidates. The degrees were distributed as follows: Chemical Engineering, 2, Chemistry 2, English 1, Geology 1, History 5, Mathematics 1, Plant Sciences 2, Zoological Sciences 1. Three degrees of Doctor of Education were also conferred.

Books Published by University Press

By Faculty Members

The University of Oklahoma Press has within the last two years published the following books by members of the University faculty:

The Indians of the Southwest, by Edward Everett Dale, Research Professor of History. The book is a thorough and readable study of Indian development under the United States, 1848-1948.

The Philippines and the United States, by Garel Grunder and William E. Livezey. Dr. Grunder was formerly Assistant Professor of History; Dr. Livezey is Professor of History. The latter's first book published by the Press was *Mahan on Sea Power*, in 1947. Dr. Livezey has received a Ford Foundation Faculty Fellowship for the academic year, 1951-52, and is on leave of absence from his classes.

Marmee: The Mother of Little Women, by Sandford Salyer, Professor of English. This delicately drawn portrait of Abba May Alcott, mother of Louisa May Alcott, has been one of the most successful publications of the Press. It is now in its third printing.

Imagism: A Chapter for the History of Modern Poetry, by Stanley K. Coffman, Jr., Associate Professor of English. Gives a definitive account of the complex forces which produced the Imagists: Hilda Doolittle, Richard Aldington, Ford Madox Hueffer, T. E. Hulme, John Gould Flether, Amy Lowell, and others who have reflected the impact of the Imagist doctrine.

Patterns of Publicity Copy, by Stewart Harral, Professor of Journalism and Director of Public Relations Studies. This book gives step-by-step advice on the creation of copy—from the idea, through research, editing, and the final draft.

Music, An Art and A Business, by Paul S. Carpenter, late Dean of the College of Fine Arts. Dean Carpenter died before he had completed his final revisions. The manuscript was prepared for publication by Helene C. Carpenter and L. N. Morgan.

Oil! Titan of the Southwest, by Carl Coke Rister, formerly Research Professor of History. Dr. Rister is now at Texas Technological Institute.

Mark Twain as a Literary Artist, Gladys Carmen Bellamy. Dr. Bellamy, who holds three degrees from the University, was formerly instructor in English, and is now head of the department of English at Southwestern State College. Her book has been described as "one of the most profound and absorbing studies that has been made."

Oil and Gas Production: An Introductory Guide to Production Techniques and Conservation Methods. This compilation by the Engineering Committee of the Interstate Oil Compact Commission was edited by Dean W. H. Carson of the College of Engineering. He did a splendid job. The book is invaluable for oil producers, royalty owners, lawyers, legislators—everyone who is interested in oil and gas production.

Education Limited, by Gustav Mueller, Professor of Philosophy. Complacency in America's educational institutions is challenged in this study.

The Lost Pathfinder, by W. Eugene Holton, Associate Professor of History. This is the first complete biography of Zebulon Montgomery Pike, soldier and explorer.

By Alumni and Other Oklahomans

Oklahoma: Footloose and Fancy Free, by Angie Debo. Dr. Debo received her doctorate from the University. She is now a member of the faculty of Oklahoma A. and M. College.

Pioneer Doctor, by Lewis J. Moorman. A pioneer not only on the plains of Oklahoma Territory—he came from Kentucky in 1901—but also, later, in the sanatorium method of treating tuberculosis, Dr. Moorman describes graphically his country-doctor days, sanatorium work, and his metropolitan practice at a time when medicine was passing from the simple patient-doctor relationship to the complexity of specialization, large clinical facilities, and expert laboratory techniques.

Life and Death of An Oilman: The Career of E. W. Marland, by John Joseph Mathews. The author, who knew Ernest Whitworth Marland intimately, was brought up with families, both Indian and white, in the

Osage country of Oklahoma where Marland discovered his enormous oil pools. Mr. Mathews draws upon his scientific training and literary powers to write a narrative of national and international scope, dealing with the big men and the little men who played their parts in the oil industry. He received his B.A. from the University in 1920; later he graduated from Oxford University; at present he lives in the Osage Nation.

A Guide to the Indian Tribes of Oklahoma, by Muriel H. Wright. An alphabetical list of the Indian tribes within Oklahoma—twenty-nine which have retained their tribal identity and thirty-eight small tribes and parts of tribes no longer recognized separately. A brief history of each is given, with present location, government and organization, contemporary life and culture, ceremonials and public dances. Miss Wright is the granddaughter of Allen Wright,

principal chief of the Choctaw, 1866-70, who gave Oklahoma its name. Educated at various Indian mission schools and at Wheaton Seminary and Barnard College, she is eminently qualified both by heritage and her work as research specialist in the Oklahoma Historical Society to prepare this valuable guide.

Handbook Best Seller

The University of Oklahoma Press has sold more than 20,000 copies of *The Farmer's Handbook*, by the late John M. White, formerly a member of the faculty of Oklahoma A. and M. College. First published in 1948, the book has had several reprintings and will be re-issued as *John M. White's Farmer's Handbook*. Newly Revised by N. W. Sellers. The latter was Professor White's lifelong collaborator.