The KANSAS DOCTOR

A Century of Pioneering

THOMAS N. BONNER

The Kansas doctor has been o pioneer in several ways. The first generotion of Konsas physicians shored in the settlement and in the stormy politics of both the territory and the young state. The second sow the down of the modern ero of scientific medicine, with the discoveries of Koch, Pasteur, Lister, and Behring. More recently, Konsas physicians have ossumed leadership in morking out new paths in public health, rural medicine, and the treotment of the mentally ill. Mony significant names—Andrew Fobrique, Samuel Crumbine, Logan Clendening, the Menningers, Arthur Hertzler, and others—appear in the annals of Kansas medicine. But this entertaining book, with its many photographic illustrations, would be less entertaining without a few characters whose role was less creditable, such as Dr. John R. Brinkley, and without its record of obstacles and difficulties, once more justifying the choice of the Kansas motto — **od ostra per ospero.**

The author, Thomas N. Bonner, who was educated at the University of Rochester and Northwestern University, has been Dean of William Woods College at Fulton, Missouri, and is now Professor of History and Chairman of the Department of Social Science at the University of Omaha. During 1954-55 he was a Fulbright lecturer in American Civilization at the University of Mainz, and in 1959 received a Guggenheim Fellowship to finish his study of the impact of German universities upon American medical men in the nineteenth century. He is the author of **Medicine in Chicago,** has edited **Journey through the Rocky Mountains,** the travel diary of a German scientist, and has contributed to periodicals articles on medical history and Civil War historiography.

The Kansas Doctor

A Century of Pioneering

by

Thomas Neville Bonner

Kansas Medical Society

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Preface

If we cannot determine the truth and validity of an event immediately under our own eyes, by what law of evidence can we know or believe in events a thousand miles away, which transpired a thousand years ago? There is no escape from this dilemma. It makes past history a fiction, and a possibility of not even the value of an old almanac. If we escape from this awful chasm of doubt and incredulity, the only way to extricate ourselves is to examine the testimony *critically*.

—Letter from Osawatomie,
Western Spirit, January 23, 1874.

The title of this book was carefully chosen. The following pages center on the Kansas doctor, his achievements and failures, his hopes and frustrations, his deeds and misdeeds. It befell the Kansas doctor as practitioner, specialist, teacher, and health officer to play many times the role of pioneer in the several worlds in which he moved. In the first generation of the 1850's he shared the hardships and the heroism, the sorrows and the joys of the actual settlement process in Kansas. His sons, if they were doctors, shared with Western men of science generally the pioneering discoveries which came with the dawn of modern medical science in Europe and America. In the third generation the work of the Kansas doctor in public health under the inspired leadership of Samuel J. Crumbine became a model for the nation. There followed a dark quarter-century of political meddling, depression doctoring, and war strains. But after World War II the Kansas doctor once more took the lead in treating the mentally ill and championing a rural health plan which was quickly copied by other states. In all, more than a century of medical practice today lies behind the doctor in Kansas and this book will appear during the centennial of the Kansas Medical Society.

I have striven throughout to follow the advice given in the Osawatomie letter cited at the beginning of this Preface. I have

not consciously sought to praise or condemn but to interpret and explain. I have looked for those larger movements and meanings in Kansas medical history which transcend the day-by-day doings of doctors, medical societies, and hospitals. In this I may have disappointed some of my readers who will search in vain for mention of a favorite physician or a particular medical society. My only defense is that the historian, unlike the chronicler, must do more than record. He must choose critically among the multitude of facts and give meaning and movement to the narrative he presents. This requires judgment and balance, which in turn invite error and disagreement. But when did the votaries of Clio ever agree unanimously on the precise shape and configuration of the human past?

It is my pleasant privilege to record here my very real gratitude to the University of Kansas and the Kansas Medical Society, which jointly sponsored the project to write the medical history of Kansas. Both have given me generous support and encouragement and aided me in countless ways. I hope the other members of the Joint Committee on Medical History will pardon me if I single out Mr. Oliver Ebel, executive secretary of the Kansas Medical Society, and Professor George Anderson, chairman of the Department of History at the University of Kansas, for special thanks here. Mr. Ebel has been understanding and helpful throughout. Professor Anderson has been friend, counselor, and genial helper, as well as critic and chief administrator of the project. I should like to thank all the members of the Joint Committee for their kindness in reading the manuscript and for the suggestions they offered.

Other warm votes of thanks are due the several librarians who have aided me at the Watson Library of the University of Kansas, especially Miss Laura Neiswanger, curator of the Kansas Collection; Dr. Nyle Miller and his staff at the Kansas State Historical Society; Mrs. Norma Evans of the Stormont Medical Library in the State Capitol; Mr. Donald Lawder, Jr., director

of information services for the Menninger Foundation; Dean Clarke Wescoe of the School of Medicine, who lent me materials and gave me much of his valuable time; Professor Clyde Hyder, editor of the University of Kansas Press; and Professor Paul Roofe, who very kindly lent me his notes on the history of the School of Medicine. Many thanks, too, to Rolland W. Kjar, Kermit Sewell, Gerald A. Aistrup and especially Richard G. Goodrum, all graduate students in history at the University of Kansas, for their conscientious work in going through files of newspapers and carrying out other tedious assignments.

THOMAS N. BONNER

Omaha, Nebraska
August 26, 1958

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The Doctor

I hate disease. I hate it, little or big. I hate to see a fellow sick. I hate to see a child rickety and pale. I hate to see a speck of dirt in the street or home. I hate neglect, incapacity, idleness, ignorance, and all the disease and misery which spring out of that. There's my devil, and I can't help, for the life of me, going right at his throat wheresoever I meet him.

—CHARLES KINGSLEY.

The successful tyrant crouches before him like a hound; the scornful beauty bows the knee; the stern worldly man clings desperately to him as the anchor that will hold him from drifting into the dark sea that has no limits. The doctor knows no rank. . . . He only knows, acknowledges, values, respects two things—Life and Death.

—*Herald of Freedom,* Lawrence, Kansas, February 3, 1855.

I

The Kansas Doctor as Pioneer (1854-1879)

"Dear old Kansas!" This was the exclamation which amused the historian Carl Becker in a young companion as he traveled in a railroad car to his new teaching post in Kansas. From his window he could see only the half-open country along the Kansas River, fields of ripening corn, and banks of sunflowers along the track. That a state so poor in the endowments of nature, so similar in landscape and appearance to her sister states, so young in history, should evoke such loyalty and sentimental devotion in Kansans has been a source of continual surprise to the non-Kansan since the state's founding. This surprise is compounded when he encounters men of national reputation and influence such as William Allen White, forsaking the nation's centers of power and prestige for a small country newspaper in Kansas. And what other state can point in its medical past to an Arthur Hertzler of Halstead, Samuel Crumbine of Dodge City and Topeka, Will and Karl Menninger of Topeka, all communities of from one to fifty thousand in population at the time these men settled there? Even after leaving the state, men who made good in Kansas medicine have continued to bear the Kansas stamp. Samuel Crumbine, Kansas' national leader in public health, left Topeka in 1923 but still thought of Kansas as home thirty years later. The great zoologist and discoverer of the hereditary significance of chromosomes, Clarence E. McClung, left Lawrence for the University of Pennsylvania in 1912, yet in 1940 he was still being honored by Pennsylvanians as "Our Man from Kansas." Samuel Williston, great entomologist, paleontologist, and first dean of the University of Kansas Medical School, wrote from Chicago: "After ten years absence I long as much as ever for Kansas—am still homesick."[1]

Why? Carl Becker found the answer in the discovery that Kansas was no mere geographical expression but a "state of mind," a religion, and a philosophy all rolled into one. The Kansas spirit has been shaped and hardened by the adversities which have beset her from the territorial wars through the grasshopper plagues and the farmer revolts to the 20th century. She was founded for a *cause,* and idealism has remained a central core of her nature. Kansans have endured much together and achieved greatly. In Becker's words, "Kansans love each other for the dangers they have passed; a unique experience has created a strong *esprit de corps*—a feeling that while Kansans are different from others, one Kansan is not only as good as any other, but very like any other."

This *esprit de corps,* this sense of solidarity among Kansans, along with the individualism and idealism ingrained in the Kansas character, is reflected in the story of the medical profession in Kansas. Not only have Kansas doctors been unusually loyal to their state and taken unusual pride in state accomplishments in the broad fields of medicine but their history is the history of Kansas in microcosm. For doctors, too, were impelled to come to Kansas to fight against (or for) slavery as well as stake out a claim against the future richness of the state. Doctors, too, felt the spur of adventure in moving west and played their part (and more) in the founding of new communities. Doctors became embroiled in the fierce politics of the 1850's, and some enlisted later in the ranks of the Populist crusaders. The practice of medicine was inevitably affected by the border strife and uncertainties, the scarcity of physicians during the Civil War, the hardships of life on the western plains, the sufferings of farmers caught in depression, and the wars and depressions of the 20th century.

Certainly the territorial struggle left its mark upon Kansas' doctors as on her citizens in general. At a time when Florence

Nightingale was beginning her great mission to the sick and wounded of the Crimea, the first resident doctors of Kansas were treating the victims of the passion and hatred engendered by the slavery quarrel. Some doctors had come with the first settlers and were deeply committed in the political fight over whether Kansas should be slave or free. Dr. Charles Robinson, most famous of the doctor-politicians of territorial days, chose the townsite at Lawrence for the first party of settlers hurried to Kansas by the fiercely antislavery New England Emigrant Aid Society. In this first party, which met a sullen reception from pro-Southern partisans, was Dr. John Doy, shortly to win a measure of fame for his capture by Missourians and subsequent rescue by a group of men from Lawrence. To Topeka in December, 1854, came a company which included another free-state surgeon and dentist, Franklin L. Crane, active partisan of the free-state cause and later acting mayor. Crane was largely responsible for the broad thoroughfares and other features of today's Topeka.[2]

Missouri squatters, on the other hand, had begun to cross the Big Muddy into Kansas even before the final passage of the Kansas-Nebraska Act in May, 1854. Proslavery leaders such as Senator David Atchison and the Stringfellow brothers at Weston, Missouri, warned their people against the coming invasion of the abolitionists. Dr. John H. Stringfellow, the younger of the famous brothers, took a claim on the future site of Atchison and became a founder and editor of the *Squatter Sovereign,* one of the most effective of the proslavery papers in Kansas.[3] At Leavenworth, another pro-Southern community, five physicians were included in the original town company. The Northern settlers moving into the territory contested many of the prior claims of absentee Missourians.

From Dr. Crane's home town of Easton, Pennsylvania, came the first governor of Kansas Territory, a lawyer named Andrew H. Reeder. The real troubles began when the new governor called for the election of a territorial delegate to Congress. The

tale has been often told of how Senator Atchison, with bowie knife and revolver at his waist, led an army of Missouri voters into Kansas to take advantage of the vague residence law in the territory. In March, 1855, came the more important election of a territorial legislature. Again the Missouri "Border Ruffians," as the Northern men now dubbed them, dropped hundreds of ballots into Kansas voting boxes and the Southern sympathizers won a resounding victory. The final count in Lawrence, seat of the antislavery movement, showed 781 proslavery ballots from an estimated 369 legitimate voters. Lawrence was the site of a free-state convention in June which repudiated the "bogus" legislature, and Topeka was host to a convention in October which drew up a constitution prohibiting slavery. Kansas doctors were represented in both the "bogus" legislature at Pawnee and the Lawrence and Topeka conventions. Charles Robinson was now recognized with James Lane as the leader of the free-state party, while John Stringfellow was Speaker in a House of Representatives at Pawnee which contained at least three other physicians.[4]

Blood was shed in November, 1855, when a free-state squatter was slain in a claim dispute by a proslavery man. The tempo of events now quickened. Violence and threats of violence filled the air of Kansas in 1856. Both sides were arming as quickly as they could. Robinson, now governor under the extra-legal Topeka constitution, was indicted with others for treason in the District Court at Lecompton. A proslavery force of armed men, chiefly Missourians, advanced on Lawrence to make the arrests and under the leadership of the mercurial Sheriff Jones undertook a campaign of destruction in the city. Another famous territorial doctor, Joseph P. Root, later lieutenant-governor, witnessed the "sack" of Lawrence as a prisoner of the proslavery party. Retaliation for the attack on Lawrence came three days later with the brutal massacre of five proslavery men by a small party led by the crazed abolitionist John Brown. According to his descendants, Dr. William Wales Updegraff was second in command to

John Brown at this slaughter on Pottawatomie Creek. Updegraff was later president of the territorial council, Speaker of the first state House of Representatives (a doctor was also Speaker of the last territorial House), and steward of the Osawatomie insane asylum. Another doctor newly arrived in Kansas, Woodson D. Hoover, had an attitude toward Brown very different from Updegraff's. He was incensed by the crimes of Brown and his followers and joined the proslavery militia.[5]

The people of Kansas were sharply divided on John Brown as on every issue affecting slavery and territorial politics. Many of the early doctors who had sought to eschew politics found it increasingly necessary to take sides. Dr. R. M. Ainsworth recalled some years later that "when I opened my office [in Wyandotte] I decided not to discuss the questions at issue, as I would be doing business with members of both parties"; but as provocations increased and the line of cleavage grew sharper he, too, was drawn into politics. An early Ogden doctor found himself arrested on reaching Kansas in 1856 and marched to Topeka for interrogation. Dr. Simeon Bell, whose gift of land many years later made the University of Kansas Medical School possible, remembered that when he reached Kansas "it was like dropping into a hornet's nest. I fell into the thickest of the border troubles. I was a free state man and a member of the militia, and I had about all I could attend to." And so it was with the majority of the territory's physicians.

The practice of medicine under these circumstances was at best uncertain and hazardous, especially on long trips into the countryside at night. "Hardly a night passed," wrote Dr. Charles Williamson later, "but what I was halted by squads of armed men demanding my business." The personal danger made for a sense of comradeship among the doctors on both sides. In the practice of their profession there was, in Williamson's words, "an era of good feeling between physicians . . . in which no code of ethics, Pro-Slavery or Free State sentiments played a part,

for many a settler owed the protection of his life and property to the timely warning of his physician." And it was, of course, to the physician that the settlers turned for the treatment of the wounds and injuries suffered in the border warfare. Of J. P. Miller, who came to Palmetto with a proslavery group in 1856, it was said, for example, that he "became very proficient in dressing gunshot wounds." His biographer wrote further that there was little opportunity for Miller to become a family physician, since his patients were of the "floating and emigrant kind."[6]

Despite the dangers and uncertainties, however, by the late 1850's doctors were pouring into Kansas with the other settlers. From Massachusetts, Connecticut, and other New England states they came—some anxious to fight for freedom in Kansas, others seeing an opportunity and a future in medicine there. From Ohio, Illinois, Indiana came even more—along the rivers, rails, and roads which led to Kansas. And from Missouri and the South came other physicians to practice their calling in the embattled territory. Some came even further—from London, from Yorkshire, from the Pyrenees department of France, from Gelderland in Holland, from Berlin and Prague and Munich. One of the German immigrant doctors, Charles F. Kob, edited a free-state daily, the Kansas *Staatszeitung,* and founded a new town which he named Bunker Hill. Early newspapers testify to his important role in rallying the German and French settlers of Leavenworth to the cause of freedom.[7]

By 1857 "Bleeding Kansas" had become the nation's Number one political problem. The proslavery settlers elected a convention that year to meet in Lecompton, where they were to draw up a constitution and seek admission to the Union. The final result was a slavery document submitted to the voters in a spurious plebiscite. Four physicians sat in this constitutional convention, which now clearly did not represent the majority will of the permanent settlers in Kansas.[8] In Washington, Senator Stephen A. Douglas, original sponsor of the Kansas-Nebraska

Act, split with his Democratic chieftain, President Buchanan, in his insistence that Kansas not be admitted to the Union under a fraudulent constitution.

In the fight against the Lecompton Constitution Drs. Robinson, Root, Crane, Kob, and others continued to play an important role in the territory's politics. Another physician active in the anti-Lecompton forces at this time was Andrew Taylor Still, later disowned by the medical profession of Kansas as the founder of osteopathy. When the free-staters finally gained the upper hand and framed an antislavery constitution at Wyandotte, three more doctors were delegates to this convention: John T. Barton of Johnson County, Luther R. Palmer of Pottawatomie County, and James G. Blunt of Anderson County, the last a future major general in the Union army. On the eve of the Civil War, January 29, 1861, Kansas became the thirty-fourth state in the American Union with the Wyandotte Constitution as the law of the land. The first governor of the state was Dr. Charles Robinson, the first lieutenant-governor Dr. Joseph Root, and the first secretary of state Dr. John W. Robinson—eloquent testimony to the role of doctors in the shaping of young Kansas.[9]

Both Root and John Robinson served as army surgeons during the Civil War, as did scores of other Kansas doctors. Some ministered to the wounded of the Confederate armies, but the vast majority enlisted in the Union cause. Still others practiced their profession at home where physicians were scarce and illness rampant in the early 1860's. The dangers from guerrilla warfare and "bushwhackers" from both sides were still very great along the Kansas-Missouri border. Simeon Bell told a reporter many years later of an incident early in the war when a Missouri friend came to warn him that bushwhackers were planning to kill him. Bell put his friend to bed in the loft of his log house, to be awakened by him several hours later with the shout: "They're coming, Doc, they're coming!" Bell dashed out the back door in a rain of bullets, clothes over one arm, and ducked into a corn-

field until the intruders rode off. Later on, Bell's general store was burned and he himself was taken across the state line by outlaws. At Lawrence several doctors were in the city when Quantrill staged his brutal assault in 1863. A Dr. J. F. Griswold was shot down in his front yard before the eyes of his family.[10]

A practitioner from Osawatomie and Mound City, earlier a follower of John Brown, was asked to raise a regiment to protect Lawrence and the border from further guerrilla attacks and won considerable fame as the leader of "Jennison's Jayhawkers." Dr. Charles Jennison, native of New York and resident in Wisconsin before coming to Kansas, was assigned command of the western border of Missouri. Earlier he had held the rank of acting brigadier general in command of all troops in Kansas west of and on the Neosho River. After his successes as a free-state guerrilla leader, Jennison was elected mayor of Leavenworth and then sent to the state legislature by his constituency.[11]

One of Kansas' great characters of the war for the Union was a woman. The annals of that war contain no more stirring or heartwarming story than the exploits of that remarkable woman, "Mother" (Mary Ann) Bickerdyke, a future Kansan. A trained nurse widowed in 1858, Mother Bickerdyke became in many ways the Florence Nightingale of the American Civil War. She went to the front in 1861 to care for the wounded and did not cease her labors until 1866, when she turned her humanitarian efforts to finding homes for ex-soldiers in Kansas. An admirer of hers, Julia A. Chase, recalled "that she went onto the battlefield of Fort Donelson at night, with a lantern and a canteen of brandy, in search of wounded men who might still be living . . . she extemporized laundries where thousands of blood-stained garments were cleansed for re-use . . . she caused unnecessary breastworks near Chattanooga to be torn down, that the logs might feed the fires on that fearful New Year's night of 1864 . . . she compelled a government steamer that was starting from Louisville, Ky., for Texas to return to the landing

and take on a quantity of potatoes and onions for the troops in Texas, who were suffering with scurvy."[12] Small wonder that this courageous, resourceful, humane woman should have been considered worth a regiment to the North by President Lincoln! After the war she not only helped veterans to settle in Kansas but did relief work in western Kansas at the time of the Indian raids of 1868 and again in the grasshopper plague of 1874.

During and after the Civil War Kansas experienced a remarkable growth. In 1860 slightly over 100,000 residents had occupied the dozen counties in the extreme eastern portion of the state; by 1870 a population in excess of 350,000 had invaded the central region; and by 1900 one million Kansans had peopled all but the westernmost counties of the state. During these same years the last of the Indian tribes in Kansas were displaced to the south, the great cattle drives from Texas were organized to meet the oncoming rails out of the East, and Kansas farmers began to bring a vast new agricultural empire under cultivation. These two decades from 1860 to 1880 brought hundreds of new doctors to the Jayhawker state. Like Kansas immigrants generally, they still came chiefly from Illinois, Ohio, and Indiana, with the next largest group from Missouri. From farther afield came such interesting recruits to the state's medical profession as a German surgeon who had served in the Franco-Prussian War (P. Neuman of Wichita), a French surgeon who had seen service in Crimea, at Solferino, and with Maximilian's army in Mexico (A. G. Abdelal of Lawrence), a Swedish pharmacist (A. Engstrom of Saline County), a native of Venice and Prussia who had won his medical degree at Göttingen (C. Hedinger of Pottawatomie County), and a leader of an exodus of Bohemians to Republic County in Kansas (F. Slopansky). A survey of the state's doctors in 1876 showed that the length of time the average doctor has been practicing in Kansas was ten years.[13]

Many of the early physicians did not practice at all. A few,

as already indicated, were too heavily engaged in politics to have time for care of the sick. The wife of Governor Robinson in her little book on Kansas wrote that although Robinson had many professional callers "he assures them all that he is not now a practising physician," yet he did "look in upon many to advise them." Many men with medical training left their profession in Kansas for farming. The champion wheat-grower of Wilson County in 1879, according to the *Lawrence Daily Journal,* was a former physician. Even more common was the combination of farming with a medical practice. In the early days of the territory, in fact, most of the practice was done by doctors who were "holding down" claims. There were few town doctors because there were few towns. Some started out as farmers but found that their neighbors would not hear of their forgetting medicine. In Atchison County, Dr. W. L. Challis had this experience and told his medical colleagues about it in an address to his county medical society in 1867:[14]

Your speaker was here during those times [the 1850's], but he came not with the intention of practicing medicine. Accustomed to fenced up and graded roads, and the well covered and padded vehicle peculiar to the Jersey Doctor, he was little inclined to venture the business here. Unused to the saddle, he felt, when mounted on a beast, like as if he was crossing a stream astride a peeled pole, the least side movement of which, or a change in the atmospheric pressure, would have inverted the occupant. Having worked for years under the small, legally prescribed rates, the liberal fees here were the only tempting inducement. But to attain the same object and acquire the same gain, I found myself dabbling in various branches peculiar to a new settlement, such as claim buying and selling, paper town sites, etc., until I fetched up in the spring of '57 on a piece of land contiguous to the then town, and applied myself to honest toil. For three successive and joyous years I there earned my bread by the sweat of the brow, and learned by experience what a satisfaction the plowman's appetite is. But during this time I was not entirely free from appeals from the surrounding country to visit the

sick, and having still some humane feelings left, I would often yield to the importunities.

Medical men dabbled in still other ventures than farming and claim-buying upon reaching Kansas. Very common was the practice of establishing a drugstore and perhaps sandwiching in professional visits between store-tending. Not a few of the early doctors were engaged in the manufacture and vending of patent medicines which as yet had not come under professional condemnation. A surprising number of medical men doubled as preachers in the thinly settled areas. One striking illustration of the important part these doctor-preachers played in the life of the 1870's is afforded by the story of a northwestern Kansas woman whose doctor performed the marriage ceremony of her parents, officiated as physician at her birth, christened her in church, performed the marriage ceremony for her, sat with her as physician during her last illness, and preached her funeral sermon. Still other early physicians were teachers, editors, postmasters, and merchants; some founded ferries and railroads, several built flour mills, one claimed to have opened the first coal mine in Kansas. In Corning, Kansas, Dr. N. B. McKay was not only a town founder and first postmaster but also opened the first drugstore, the first hotel, and the first general store. Such enterprise was not at all unusual in the pioneer physician, who was quite often the only settler of education and wide experience to undertake such tasks.[15]

But not all of the early physicians were by any means men of culture and education. A great many of them had seen little of schoolhouses and books and even their medical skills might be largely self-taught. In the heroic early years of Kansas medicine, when settlers were scattered and doctors few, a doctor might almost be defined as anyone who was practicing medicine. No questions were asked if the practitioner brought relief from suffering. Frequently rough in dress and speech, half-literate, without formal training in medicine, the amateur physi-

cian was nevertheless on occasion a man of talents. The story of the old New England sea-captain sent for by the family of a man whose foot had been torn open by lightning has come from too many sources, some of them reliable, not to have a grain of truth in it. The wound would not heal and was filled with maggots, according to the accounts, and the captain advised, "Let them alone. They are only carrying out the dead flesh and dead bone. They never attack anything that is living."[16] Many years later maggots were being used once more to clean out old wounds in which there was necrotic bone tissue.

Talented or untalented, some one had to do what was necessary when trained help was not available. Sometimes a traveling preacher would be called upon to prescribe or assist with the sick. Not a few of the circuit-riders carried medicine cases in their saddlebags. Somewhere in every neighborhood, too, was usually a person who could be counted on for minor surgery short of serious fractures and internal injuries. Of Jim Meredith in Jefferson County it was said that he "could sew up a gash as well as any surgeon . . . or pull an aching jaw-tooth when nobody else could do anything with the sufferer." In Barton County around 1880 a father amputated the badly infected arm of his dying son with a knife and saw with nothing to ease the pain, yet the boy recovered. Skillful women with good judgment and strength of body and spirit were always in demand in childbirth and by the families of the sick. Few births occurred in pioneer Kansas which were not attended by one of these amateur midwives. Jim Meredith's mother in Jefferson County delivered scores of babies in the surrounding countryside and had little time for her own family. Mary Stewart, whose letters and recollections form a wonderful account of life near early Fort Leavenworth, practiced a rigorous cleanliness in her medical work which would do credit to a modern surgeon. "Often as not," according to one tribute to her efforts and those of others, "the bobbing lanterns seen at night across pastures and down lanes

were carried by these busy women, on their way to care for a chest cold that had suddenly 'taken worse,' or to answer the call of a woman whose child was choking with croup. There are many accounts of streams forded at flood on such errands, of storms faced on open fields before fences marked the route of roads, and of snowdrifts waded without hesitation though they might conceal deep ravines—all to give help for which no pay was expected or received."[17]

The accepted road to recognition as a medical practitioner led through the study of medical books, apprenticeship to an older physician or preceptor, and (hopefully) formal study in a medical college. In early Kansas as in all primitive communities, as we have seen, there were short cuts dictated by experience and necessity. But some study was normally undertaken by even the boldest. One Osage County pioneer, fortunately, has left a record of his reading in medicine and his diary entries give us some notion of his progress:[18]

Sept. 11, 1858 "Read Meigs all day" (Charles D. Meigs, author of a textbook on obstetrics).

Oct. 31, 1858 "Rainy all day—very high water. . . . Read medicine up in Dr Sheldons new office."

Nov. 1, 1858 "Read Neil & Smith." (Authors of a series of handbooks on anatomy, surgery, and other medical subjects.)

Nov. 5, 1858 "Cold and raw. Read all day."

Dec. 1, 1858 "Finished reading Physiology and Commenced Materia Medica."

Following the course of reading or perhaps simultaneous with it came the preceptorship with a practicing physician. This could be the very best kind of practical instruction in obstetrics, treating wounds and fractures, handling epidemic diseases, and mixing medicines, but very often the older physician used his young apprentice as little more than a chore-boy and not much was learned. A typical newspaper appeal of the late 1860's for

a medical apprentice would read as follows: "Dr. F. Klemp . . . is getting a fair share of patronage and desires a more extended field of usefulness. Any person possessing the necessary degree of intelligence, who may desire to study homeopathy, can have the use of his office and library, and receive all the assistance it may lie within his power to give."[19]

The last step—the acquiring of a medical degree—was taken by a minority of Kansas doctors in the first quarter-century of the state's history. As late as 1878 a majority of the doctors listed in the Wichita Business Directory of that year did not possess a medical degree. Most of them, according to the historian of Sedgwick County medicine, were simply "Civil War veterans with a hankering for medicine." A perhaps typical practitioner of the 1870's in southeastern Kansas reported six months of education in a graded school, a preceptorship of brief duration under an Ohio doctor, and the beginning of practice, as he put it, "without the advantages of college training." Some of the more conscientious members of the profession returned to college in later years to complete their education in medicine. The county histories give the records of dozens of such men in practice for five or ten years enrolling in medical schools during the 1870's and 1880's. In part this was an effort to meet the new state requirements for medical practice in 1879 but not wholly so. For the law of 1879 was short-lived and made numerous exceptions for older practitioners; some passed their examinations for licenses without formal study.[20]

Whether formally schooled in medicine or not, the old country doctor led a rugged and demanding life in a day when there were few towns and fewer hospitals. His practice carried him over distances Herculean by modern standards. Wichita doctors, for example, sometimes ventured more than a hundred miles on horseback or by buckboard into the scarcely populated plains to the west and south of the city. The story is told of Dr. Henry Owens, away from Wichita on a 110-mile journey to see a pa-

tient, that he shot a wolf that was on the scent of the provisions which the doctor always carried on such long trips. It was not uncommon for these country doctors to be away from home for several days with no means of rapid communication with their home base. In their own neighborhoods they could be summoned by means of a "doctor's bell," a bell of peculiar tone rung by the doctor's wife.[21]

These long journeys were not without their dangers and discomforts. Spring rains, unbridged streams, and heavy winter snows plagued the country doctor's existence. Many a doctor, too, lost his bearings on unmarked prairie trails, especially at night, and was forced to go many miles out of his way in search of help. John Fear of Waverly recalled driving across the prairie on a dim trail on a very dark night and having his team drop out of sight, halting his buggy. Upon investigating he found that he had left the trail, his horses had plunged over a bank about seven feet into a ravine, and his buggy was left poised precariously on the edge of the bank. Another time he was called out at 2 A.M. in a heavy snowstorm to attend to an obstetrical case seven miles in the country when he stalled his team in a five-foot snowdrift. His resourcefulness and good spirits stand out in his description of the incident. "I had a shovel and a hatchet in the buggy, and dug my team out and got them across the road and into a field on the north side. My next problem was to get the buggy out. Finally, by lifting the buggy one wheel at a time. I got it on top of the drift where the frozen crust on the snow bore it up and I pulled it over the fence. Then I hitched up the team and went on. I pulled on a heavy fur coat but as the sweat was pouring off my forehead like a man in a harvest field, I had not gone half a mile before I was shaking, so I could hardly hold the lines. But, after all, I arrived in plenty of time to welcome a new Kansan."[22]

Strength, patience, good humor, and courage—these were the characteristics of the most successful of the country practitioners

of early Kansas. Yet the ruggedness of their lives, the dangers, the constant exposure to dread diseases was more than some could bear. The death notices in the early newspapers of Kansas tell a melancholy story of hopes blasted, of ambition checkmated. A few examples will illustrate:[23]

Dr. Jonathan Ballou, from La Porte County, Indiana, died 1855, of cholera, age 28. (Lawrence paper)
Dr. M. B. Ashley, from Meadville, Pennsylvania, died 1856, age 25. (Topeka paper)
Dr. John Jay Miller, from New Paris, Ohio, died 1856, age 24. (Topeka paper)
Dr. J. M. Overholtz, from Canada West, died 1860, age 30. (Lawrence paper)

Equally frequent were such notices as these:

Mrs. Frances Swisher, wife of Dr. W. B., died on the Neosho, 1858, of pernicious fever, age 22.
Clarence M. Root, son of Dr. J. P., died at Wyandotte City, 1857, of scarlet fever, age 4.

With the surge of population in the 1870's, the advance of iron rails across the state, and the exploitation of her mines, Kansas became dotted with towns and villages, and the country doctor began to give way to the town doctor. The pioneer period of Kansas medicine was passing by the end of the 1870's. The range of practice of the average medical man was becoming smaller. Bridges were being built, trails were better marked, railroads were linking major points. Down in Wichita Andy Fabrique saw the tiny village he had entered in 1869 grow into a flourishing city. This contemporary of Wyatt Earp, already a legend among physicians and townspeople in his lifetime, lived to see Wichita become Kansas' largest city. He was a link between the old and the new. In the early 1870's his practice, like that of other Wichita doctors, carried him east to the Walnut River, north to Newton, south to Indian Territory, and west "as far as one could ride in two days." But a decade later his practice seldom

DOCTORS, ATTENTION!

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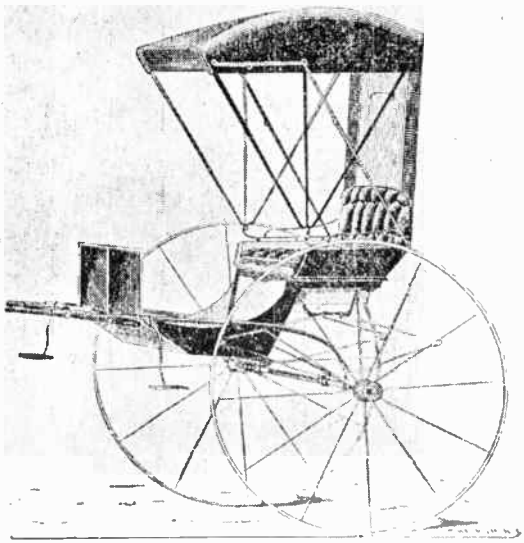

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W. R. CHURCH, Yorkville, Ill.

W. R. CHURCH:—I am satisfied there are none so near perfection as yours for ease and comfort to the country practitioner. R. A. McCLELLAND, M. D., Yorkville Ill.

YORKVILLE, ILL., Dec. 12, 1882.—I have been using one of Church's Physicians' Road Carts for some time, and am well pleased with it. I have practiced medicine for nearly twenty-five years, and have used almost every kind of vehicle on two wheels that I have ever seen, but this is the only one of any kind of that description that I have ever used that I can heartily recommend. W. T. SHERWOOD, M. D.

PLANO, Dec. 8, 1882:—W. R. CHURCH:—Dear Sir:—The Road Cart I purchased of you is all and more than you told me. It rides as easy as any four-wheeled buggy, and I most heartily recommend it.
Yours truly, O. P. BEARDSLEY.

W. R. CHURCH, Yorkville, Ill.—Dear Sir: I have used one of your Road Carts since last February. I think it superior to any Road Cart I have examined. It is the thing for the "busy practitioner."
Yours Respectfully, W. F. KINSELL, M. D.

WARREN, MICH., Jan. 2, 1883.—W. R. CHURCH—Dear Sirs: According to your request, after thoroughly trying your cart on all sorts of roads, I would say it comes up to my idea of comfort and ease, and I would not be without it for twice its price, if I could not obtain another. Truly yours, J. C. EVANS, M. D.

Refer to the following medical journals: Lawrence & Sons' Med. Brief, St. Louis, Mo.; A. J. Smith's Electric Medical Journal, Indianapolis, Ind.; The Texas Medical and Surgical Record, Galveston, Tex.; R. H. Andrews' Medical Summary, Lansdale, Pa.; J. H. Chambers' St. Louis Courier of Medicine, St. Louis, Mo.; Kansas and Missouri Valley Medical Index, Fort Scott, Kansas.

Advertisement in the *Medical Index*, V (1884); courtesy of the Kansas State Historical Society

carried him outside Sedgwick County. Like many early doctors Fabrique possessed no medical degree, though he had attended medical lectures at Tulane University. Twice wounded in the Civil War, he had sought locations to practice in Nebraska, California, and Illinois before deciding to become the second civilian doctor to settle in Wichita. His tall, powerful frame and distinguished mien, his skill in obstetrics, and his kind and charitable disposition won him the friendship and respect of patients and colleagues. At the age of 45 he determined to become a surgeon and returned home from a period of study in Chicago with the great Christian Fenger and Nicholas Senn a capable operator. He later experimented with dogs and tried skin grafts at home; he became a master at opening skulls in accident cases and for brain abscess; and he was the first western surgeon, according to one authority, to open the common duct for gallstones. His colleagues' respect is reflected in the unanimity with which he has been called the "father of the medical profession of Wichita."[24]

The fees which Fabrique and his contemporaries of the 1870's charged were modest and geared to the patient's supposed ability to pay. He never accepted payment from pensioners, working girls, or poor widows. Like many another doctor of this era Fabrique felt it was impossible, as he expressed it, for a man to be a good physician and a financier at the same time. Victor Murdock, famous Wichita editor and friend of Fabrique's, wrote of the old doctor that "in his office he stored his bills receivable. Once in a while he would run them over under his thumb like a pack of cards. With some entirely uncommercial philosophy of his own, he discriminated between them. Some . . . he presented for payment. Many, many of them he never presented at all." There is sufficient evidence to show that the average charge for a house call during the day was about $1.50 in the 1870's, though some doctors charged $2 or more. A Leavenworth fee bill of 1869 calls for a minimum fee of $2.50, doubled after

10 P.M., but like most such early fee bills it probably represents the substance of things hoped for, rather than actuality. This same fee bill lists charges of $15 for obstetrical cases, $2 to $5 for bleeding, and $15 to $30 for a tonsillectomy. In their own defense, apparently, the Leavenworth doctors noted that this fee bill "is equitably adapted to the high price of every commodity in Leavenworth."[25]

Some patients then as now did not place the doctor high on their list of creditors. An interesting account book of a Lawrence doctor of the 1870's shows such revealing comments in the doctor's handwriting on the credit side of his ledger as "worthless," "dead beat," and "absconded." Other accounts were paid in kind, and the accounts show that the doctor received in payment drugs, beef, vegetables, groceries, and hay, as well as such services as painting and sawing wood. An occasional reference is found, too, to early attempts to inaugurate what would today be called "prepayment medical plans." One Manhattan doctor, who farmed on the side yet still fared poorly, offered his patients the option of paying fifty dollars per family per year for care of the entire family, regardless of the number of calls. This practice was roundly condemned by an early Kansas medical journal as "thoroughly bad in its influence and pernicious in its operation." The physician would find himself called upon for the most trivial and unnecessary reasons, the editor argued, while the patient would suspect any lack of promptness or attention in the doctor as due to his having already paid his bill. The moral aspect of the arrangement was the worst of all, concluded the journal, for it was "simply a betting between the parties as to how much sickness will occur in the employer's family during the year."[26]

What kind of medicine was practiced by this first generation of Kansas doctors in return for the fees asked? From the books they had read and the medical colleges they had attended they viewed disease as largely the work of the blood. "All acute disease,"

wrote Dr. S. B. Anderson of Lawrence in his notebook at a lecture in a Cincinnati medical course, "is a derangement of the fluids and not of the Solids of the body."[27] To cure disease it was necessary to treat the fluids, especially the blood, either by withdrawing them or purifying them with strong medicine. The work of the French anatomist, Xavier Bichat, who had shown that disease is a change in animal tissue and not in the blood, was little known in America, especially by busy frontier practitioners of the 1850's. Rudolph Virchow's great book on cellular pathology which gave a firm basis to the new localized pathology was not published until 1858. Its impact on medical thinking about disease and its nature came still later. A revolution in medical theory and practice was in the offing, but Kansas doctors were as oblivious of the impending change as other Americans of the 1850's and after.

Kansas medicine, like American medicine generally, was eminently practical. Interest was centered in the cure rather than the cause of disease. The widespread belief that every disease had a cure, if it could be found, encouraged empirical experimentation. A Leavenworth doctor expressed a common feeling when he wrote: "I need hardly say . . . that it is almost impossible for us on the frontier, to furnish food for thought, or enrich our profession by original investigations, or weave fine-spun theories. . . . Let us rather strive to render perspicuous our labors as practical men."[28]

This frequently meant applying the dreaded triad of bleeding, purging, and emetics. Bleeding took the form of opening a vein (venesection), cupping, and leaching. It was used most frequently in pneumonia and the other febrile diseases. When a sufficient amount of the "bad blood" had been drawn off—doctors' judgments might vary as to how much was sufficient—the patient was allowed to rest and recuperate. Bleeding was still used quite extensively in Kansas in the 1850's, less so in the 1860's, and rarely in the 1870's. "The lancet," wrote W. J.

Burge of Atchison in 1872, "has finished its course and been laid away in the grave as quietly as many of its former victims."

The favored medicine in the pioneer physician's armamentarium was calomel, although he kept on hand a liberal supply of quinine, jalap, opium, bismuth, nux vomica, castor oil, and whisky. Eight grains of calomel was considered a conservative dosage, and it was often given in doses of from twenty to sixty grains. One instance is recorded in Kansas of one hundred grains of calomel being given in a single dose for a "blocked bowel." Excessive use of this drug, however, had its injurious effects. Numerous cases of "calomel poisoning" were reported in the medical literature and the surgeon-general of the Union armies was driven to ban calomel from the supply table in 1863. A Kansas druggist from Independence recalled a boy who had lost the flesh of both cheeks and a lady who had lost the greater part of both lips from abnormal dosing with this drug. These savage reactions and a lack of proof that it actually cured any disease brought calomel and other strong medications into disrepute among large segments of the public. Irregular physicians capitalized on this repugnance to the drug by such advertisements as "No Calomel" or "No minerals or poisons used." By 1870 Dr. Burge could tell the Kansas Medical Society that "any disease which can be cured by mercurials, can be cured by other and safer drugs."[29]

In diagnosing disease, the doctors of early Kansas made scant use of the thermometer, the ophthalmoscope, or the laryngoscope, all of which were in use in America by the 1860's. A doctor who used a thermometer, one old-timer recalled, "was looked upon as rather a sissy. The patient had fever or he did not have fever, as shown by his pulse, and that was all there was to that." Doctors prided themselves upon being able to diagnose without the new scientific gadgets, and it must be said that some, aided only by a stethoscope and well-trained senses, were extremely skillful in their sizing up of a new patient. A hand on the fevered

brow, the taking of the pulse, a little percussion and auscultation, all the while listening to the patient's complaints, and the examination was done. That the clinical thermometer was not unknown to the better-informed Kansas doctors of the 1860's, however, is shown by a report of an 1867 meeting of the Leavenworth Medico-Chirurgical Society, in which the famous Dr. Cornelius A. Logan of that city exhibited one and expressed the opinion "that it was destined to become of great importance in the diagnosis of disease."[30]

Dr. Logan, one of the leading men in the state's medical profession in the late 1860's, was also the senior editor of a medical journal which carried a most interesting report on advances in surgery during 1868. Surgery, according to this report to the Kansas Medical Society, "has not advanced with any great stride during the past year," and to spend much time on it "would waste valuable time, and delay more important medical matters." This happened to be the year when there appeared in the *British Medical Journal* an article by Joseph Lister entitled "On the Antiseptic System of Treatment in Surgery." Physicians stood at the dawn of a new era in surgery as in medicine, but most were as ignorant of the impending changes as the author of that report.

Some Kansas doctors, to be sure, were aware of Lister's work and were even experimenting with carbolic antiseptics, but their efforts attracted little notice. Logan's colleague, Dr. J. W. Brock of Leavenworth, for example, reported an unsuccessful attempt in October, 1868, to use a carbolic acid paste on an ulcer of the leg. Even more imaginative was the paper published in January, 1869, by a practitioner named S. T. Odell from the tiny village of St. Louis in Miami County. Odell reported the healing of a compound fracture without incident after using carbolic acid as an antiseptic and asserted that this helped to substantiate Lister's claims. That Odell was converted this early to antisepsis, doubtless the first in Kansas (and a good part of the United

States), is borne out by his concluding statement that he had in the preceding year "seen wound after wound treated in the old style, and patients suffering exhaustion from suppuration in consequence."[31]

The average Kansas surgeon continued to believe for another decade or more in the ancient doctrine of "laudable pus," the idea that suppuration was essential to the process of healing. Simple wounds which healed "by first intention" were the exception. In their operations, the early doctors of Kansas, like their colleagues elsewhere, were shockingly careless by modern standards in matters of cleanliness. The operator wore his street clothes under his blood-encrusted apron and prided himself on keeping cuffs and shirt-front clean. Hands were washed after and not before an operation. Catgut and surgical needles dangled from coat lapels or were stored in coat pockets until needed. Sea sponges used in the operation were rinsed and used again. In the best hospitals mortality was high—60 per cent in the famed hospitals of Paris—and in Kansas it was higher.

The horrors of Civil War surgery left their mark upon ex-soldiers as well as upon the doctors. One of every four soldiers who lost a limb in surgery died as a consequence. Four out of every five hip-joint amputations ended fatally. Hospital gangrene was the bane of every war surgeon. Army hospitals were dreary, cheerless places, and few were so fortunate as to have a Mother Bickerdyke. Small wonder that veterans returning to Kansas felt a fear close to loathing of operations and hospitals.[32]

Most surgical work performed in the first quarter-century of Kansas' medical history was consequently of the simplest kind: fractures, flesh wounds, abscesses, hernia, bladder stones, and an occasional amputation. Aneurisms, tumors, and more difficult operations were referred to the few men who were beginning even at this early date to specialize in surgery. There are cases on record of successful early Kansas operations for brain abscess and strabismus, tracheotomies, amputations of thigh, resection of

shoulder joint, and removal of two-thirds of the lower jaw bone. Only the boldest surgeons of the 1870's were invading the great cavities of the body. Many persons with appendicitis died of "inflammation of the bowels." Ovariotomies were fatal in 65 per cent of all cases and were rarely attempted. The courageous J. W. Brock of Leavenworth reported two failures and no successes in this operation in 1873. The first successful operations of this kind in the Kansas area were apparently performed by S. S. Todd of Kansas City, Missouri, in 1879.[33]

In hospital surgery, the anesthetic most frequently used was chloroform, but in country practice whiskey in large doses was the most common pain-killer. For many years physicians did not carry chloroform or ether in emergency cases. Anesthetics were rarely used in childbirth cases except in unusual situations. This was due in large part to fear of their effects and to widely heralded reports of fatalities from their overuse. A typical newspaper item of 1877 reads, for example, that "Dr. S. B. Lum, of Holmwood, has been arrested for malpractice. He was called upon to set an arm for a young man, and administered chloroform until the young man died from its effects."[34]

By all odds the surgical wonder of early Kansas is the incredible but well-authenticated story of the operation performed without anesthetic by Nancy Rogers, a practical nurse, upon herself in the late 1870's. She had been told by Dr. Henry Owens, an early Wichita doctor, that she was suffering from cancer and that her breast should be removed. When they failed to agree upon a price for the operation she drove her wagon home and cooked enough food to last her sons a week. She then packed into a large basket a nightgown, a quantity of muslin rags, some food, and a butcher knife. Telling her boys she was going off on a visit for a week, she drove to town. There she hired a room for two dollars, locked herself in, sat down on the edge of the bed, and removed her own breast. How she was able to survive

the shock without anesthetic and to bandage the wound is unknown, but she lived for many years.[35]

Surgery performed by doctors in country practice without anesthetics or attendants was often very crude indeed. The kitchen of a farm home was usually the operating room, with the patient spread out on the sturdiest table. Friends or relatives would hold the writhing patient as the surgeon worked. Speed was obviously desirable, and many surgeons developed a deftness and quickness of movement appropriate to these conditions.

Aside from surgeons and an occasional eye doctor, there were no specialists in Kansas prior to 1880. A president of the state medical society explained that "the absence of large hospitals in our State, . . . the necessity that exists for our being physician, surgeon and accoucheur, and frequently nurse, almost absolutely precludes the possibility of attaining to pre-eminence in any particular department of our calling." A considerable number of the early doctors, in fact, served as dentists as well as physicians despite the fact that dentists were quite numerous in the larger towns. One of the early professional dentists in Kansas, interestingly enough, was the first woman to be licensed in dentistry in the United States, Lucy Hobbs Taylor.[36]

In this review of medical and surgical practice in early Kansas little has been said of the diseases and health conditions which faced the pioneer settler and the pioneer doctor. The great sweep of epidemic diseases which plagued other frontier settlements did not by-pass Kansas. Kansans had their share of malaria, smallpox, dysentery, diphtheria, pneumonia, typhoid and scarlet fever. Primitive sanitation, drainage, and hygienic conditions generally took their toll of lives in the early days. The cause of contagion was not well understood until the 1880's, although it was deemed certain that it had much to do with filth, impure drinking water, and close personal contact. Contagious diseases, it was thought, were transmitted by mysterious "miasmas" arising in damp or night air, particularly near decaying

matter, or by poisons contained in drinking water. It was well understood in the 1860's that a person could breathe or drink in a disease, but *how* remained to be answered. An editorial in a Topeka newspaper of 1869 typically deplores the lushness of the summer vegetation that year, for "This overgrowth of greenness must soon begin to decay and die; then the rapid growth of vegetable matter will have ceased to absorb and swallow up the miasma, and an unwholesome and sickness-engendering air will surround us. These are the invariable forerunners of chills, fevers, agues and other ailments."[37]

The "agues" to which the newspaper refers were the various types of malaria. No other disease was so widespread, even universal, as this chilling, bone-shaking misery which afflicted the early settlers. John Brown, Jim Lane, all of the pioneers suffered from it. Many an old Kansas graveyard gives testimony to the grim work of this disease, especially among the young. "During November, 1856," lamented an Osage County pioneer, "our little baby sister Elizabeth died from the effects of this terrible Kansas ague." It began with headache, fever, and chills. Knees would knock and teeth chatter. In chills the victims would huddle close to the stove; then came the burning fever and the thirst for water. One Kansas pioneer complained that when the whole family was shaking with the chills, the chinking between the logs of the cabin would be jarred loose. Another wrote to a brother thinking of settling in Kansas: "Two things I am afraid will make you dissatisfied with our State, viz: Chills and fever and the scarcity of young ladies." The great majority of "ague" sufferers recovered, but only after a long siege of weakness and misery. One of the very best descriptions of what it felt like to suffer from malaria comes from Pickard and Buley's colorful account in *The Midwest Pioneer:* "You felt as though you had gone through some sort of collision, thrashing-machine or jarring-machine, and came out not killed, but next thing to it. You felt weak, as though you had run too far after something, and then

didn't catch it. You felt languid, stupid and sore, and was down in the mouth and heel and partially raveled out. Your back was out of fix, your head ached and your appetite crazy. Your eyes had too much white in them, your ears, especially after taking quinine, had too much roar in them, and your whole body and soul were entirely woe-begone, disconsolate, sad, poor and good for nothing."[38]

Ague pills and mixtures outsold almost every item on the early storekeepers' shelves. Remedies galore were printed in the early newspapers of the state. Hot coffee containing the juice of one lemon was advised at the onset of a chill by the *Leavenworth Times*. One doctor suggested standing on one's head as a treatment. Calomel was used for this as all other ailments. Medically trained men advised quinine, but it was sometimes difficult to come by, and many settlers did not know of its existence. The high price of this drug, too, was a deterrent to its use, although a cheaper substitute called dextro-quinine was available in some places. An old prescription book of the late 1850's preserved by the relatives of an early Wyandotte doctor shows dozens of remedies for ague, only about one-third of them calling for quinine. One remedy which the doctor had copied from some forgotten source reads: "Take one Pint of good Whiskey and one Pint of good Vinegar and put to gather and take a mouthful morning noon and night until it is done and it will cure aney Ague." The combination of whiskey and quinine was apparently very common in Topeka in the 1870's from the testimony of one outraged subscriber to the *Kansas Daily Commonwealth* who inquired, "What is malaria, and how does whisky and quinine antidote it? Has any physician ever seen malaria? Is it a germ or a gas, a solid or a fluid, an entity or a non-entity? Does it get into the human system by inhalation, absorption, imbibition or deglutition? Or does it wiggle its way in by some unknown and mysterious process? And when it

gets in, what evidence have our learned doctors that whisky and quinine will . . . compel it to wiggle out again?"[39]

No Topeka physician could have answered the writer's questions in 1879, the year the outburst was published. Alphonse Laveran was already engaged that year in the work in Algeria which would bring identification of the malarial parasite, but it was still many years before Ronald Ross would show how the disease was conveyed from man to man through the bite of *Anopheles,* a mosquito. Indeed, in this period most physicians had a difficult time separating malaria from typhoid and other fevers. Lacking any rational basis for classifying disease except by symptoms, doctors were likely to describe the various fevers they met as "autumnal," "bilious," "remittent," or "intermittent," depending upon symptoms and the time of year. A physician in doubt as between typhoid and malaria might compromise by calling it "typho-malarial fever."

Typhoid fever, in fact, owing to its confusion with malaria, was probably more widespread in early Kansas than the doctors realized. Where malaria was more likely to be a disease of the early settlers spread thinly over new country, typhoid fever struck at the clusters of population in town and village. It was known to be a "filth disease," and many early Kansas communities invited it through faulty or no drainage and sewerage and by sinking wells in the vicinity of vaults, garbage dumps, or sewers. The *Fort Scott Monitor* complained in 1870, for example, that "the west end of Wall street near the ravine, is made a general deposit of the refuse, filth and garbage of the city, greatly to the annoyance and even danger of infection of the people residing in the neighborhood."[40]

Typhoid fever struck sporadically at the young communities on the Kansas prairie. In the first decade of settlement there were scattered reports of the disease in Osage County and around Topeka in 1855, and in Allen County and at Manhattan in 1859 and 1860. A fairly serious attack hit White Cloud in 1859 with

twenty critical cases all under treatment at one time. The White Cloud paper reported that there were scarcely enough well people to care for the sick, and it lamented that "such a time was never seen here before, and will probably not soon be seen again." In the 1870's other scattered reports of the prevalence of typhoid came from Lyon, Shawnee, and Jewell counties, all in the more settled eastern and central sections of the state. A member of one stricken family in Jewell County wrote, "Our old home in Illinois seemed dearer and farther away than ever after Joshua died."[41]

Far more dreaded than either typhoid or malaria was the scourge of smallpox. Before the opening of the territory to settlement epidemics of this often fatal disease had swept through the Indian tribes and federal forts of Kansas. The contagion was especially disastrous to the Indians, who had developed no group immunity. Thousands of them died in the years from 1828 to 1831. One Pawnee agent in 1831 saw them "dying so fast . . . they had ceased to bury their dead, and bodies were to be seen in every direction, lying in the rivers, lodged on the sand bars, in the weeds around their villages, and in their own corn caches." In 1855 the Osage Indians were stricken and hundreds more died of the disease. According to an observer who had been on a trading expedition with them, the panic-stricken Indians plunged themselves into the water and lay there until death ended their suffering.[42]

The epidemic of 1855 had a faint echo in a minor outbreak of smallpox in the Lawrence area. Vaccination was advised by the *Lawrence Herald of Freedom* for all travelers to the territory, but this campaign was soon dropped. Most newspapers were very hesitant to give what they felt to be bad publicity to their towns. Fear of smallpox in Lawrence and throughout territorial Kansas was heightened from time to time by rumors that proslavery chieftains were planning to inoculate slaves with the disease and send them into Kansas to drive the free-staters out.

Territorial legislatures on two occasions passed laws making it a crime for any person to inoculate himself or others with smallpox with the intention of spreading the disease.[43]

The first serious attack of smallpox among white settlers occurred in 1862 along the northeastern border of the state. From Troy and White Cloud in Doniphan County it spread south to Leavenworth, where it was feared that federal troops might catch and spread the infection. Arrest of the disease at the outset was prevented by a violent wrangle among doctors and townsmen as to whether it was actually present in White Cloud. Few heeded the warning to vaccinate. The editor of the *White Cloud Chief* lashed the timid doctors and those who exposed others to the affliction. "Our sentiment," he wrote angrily, "is that any person who, while yet full of scabs, or before the contagion is thoroughly eradicated from his clothing, goes among those whom he does not know to be protected against it, deserves to be kicked out, without any ceremony."[44]

Quarantine, it is clear from the foregoing account, was rarely practiced before the 1870's and then only with indifferent success. Inoculation, too, was suspect in the minds of many early immigrants, sometimes with good reason. A White Cloud "physician" of 1865 inoculated a number of persons with a virulent poison, and it was rumored that amputation was necessary to save the lives of some of his victims. More serious was the case of the Woodson County doctor who about the same time inoculated an entire community with live smallpox virus instead of attenuated vaccine, thus initiating a local epidemic of severe proportions.[45]

By the time of the great smallpox epidemic of 1872 centering in Topeka the "pesthouse" had made its appearance. This was a shelter located in some cornfield or pasture with little or no equipment and frequently no caretaker. Here were brought the sufferers from smallpox and other contagions for isolation from the populations of the growing towns and villages. In Wichita

the pesthouse was across the Arkansas River in what was known as "the wilderness." By their very nature pesthouses had an aura of horror about them, and later generations remembered hurrying "breathlessly past with flopping coats and thudding heels, stealing quick glances at the little structures to make sure no terrible thing was leaping out toward them."[46]

The doctor in charge of the Topeka pesthouse at the time of the 1872 outbreak, H. K. Kennedy, gave the Kansas Medical Society a detailed report of the origin and spread of this epidemic. It had begun, he said, in Wabaunsee County with a man dead of smallpox. His attendant had gone to Silver Lake, twelve miles west of Topeka, where he contracted the disease. He was treated by a man in Silver Lake contemptuously referred to by Dr. Kennedy as a "merchant-doctor," who ran a store in the main part of town. When another case broke out in the "doctor's" own family, angry citizens demanded that he put a warning placard on his store. He refused. A citizens' committee placarded the store. By now two persons were dead. A Topeka doctor, hired to bury the corpses, became fearfully drunk according to Silver Lake officials and drove his team through the town at midnight with the coffins jouncing up and down on the back of his wagon.[47]

The alarm now spread to Topeka in earnest. Vaccination was ordered and made free to the poor. A city cleanup was undertaken. The district court was adjourned. Newspapers were full of articles on the disease, its origin and cure, and how to prevent pitting of the face. Topeka physicians attending cases in Silver Lake were asked to remain outside the city limits until the danger was over.[48]

But all was in vain. The epidemic struck the city despite all precautions and exacted a heavy toll. Other cities took up the alarm—Lawrence, Fort Scott, Wichita—but the disease spread widely over the state, hitting the northern and eastern sections particularly hard. Dr. Kennedy summed up the lessons of the

attack for the physicians of Kansas: "If our country would be free from this terrible scourge, it must not depend on specifics [remedies], but upon vaccination, as taught by Jenner, and . . . [especially] compulsory vaccination, for in that lies the safety of our people from another visitation like the present one."[49]

If Kansans feared any disease more than smallpox, it must have been cholera, or "Asiatic" cholera, as it was frequently known. Fortunately, most of the major visitations of cholera to America were over by 1854, and even when it struck Kansas briefly in 1855 and again in 1867 it was largely confined to the line of military forts along the Santa Fe and Overland trails. Many of the early settlers were close to panic in the 1855 epidemic when reports came in of ten deaths within two hours in the Kansas City area. A woman who helped with the nursing there reported she was "unable to sleep day or night because of the hammering and sawing of the coffin makers." The report of cholera in the river towns caused Governor Robinson's wife, always suspicious of Missouri neighbors, to write in her diary that the disease was largely confined to Missourians and that she suspected "a sad want of personal cleanliness" as the cause. The *Herald of Freedom* poohpoohed the epidemic reports and expressed the opinion that the attack "has been limited *wholly* to those who were accustomed to the excessive use of spirituous liquors." But doctors were less sanguine. Dr. Hiram Clark of Lawrence, who was himself to die of cholera three months later, wrote in his diary on February 11, 1855: "Clouds and darkness thicken around me! Sickness and death are present. Witnessed a death bed scene in a sincere friend of mine, Mr. S. S. Litchfield, he died this morning about ½ past 1 A. M. and was buried about 5 P. M. Feel deeply anxious and solemn at this time."[50]

In the late summer of 1855 came more disheartening reports of cholera at Fort Riley and Pawnee. The swift, relentless course of this plague at the Fort brought the garrison to panic. Within twenty-four hours of discovery of the first case several had died

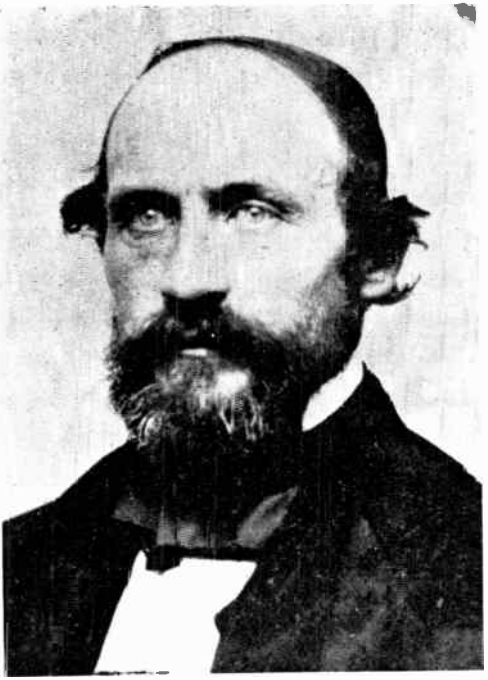
and dozens more were screaming in mortal pain and anguish. Major Edmund A. Ogden, in charge of permanent construction of the Fort, was himself stricken. More than a hundred men deserted, including the only physician, Assistant Surgeon James Simmons, later court-martialed and dismissed from the service. The ailing Major Ogden now acted as physician as well as commander though he had no medical training. On the horrible third day, fifteen men died, including Major Ogden, and near-rebellion took place. Perhaps fifty more were stricken. Strong men fell sick at midday and died before the sun rose next morning. A young woman who had come to Fort Riley to marry a quartermaster employee died while her trousseau was being prepared. From Manhattan came the youthful Dr. Samuel Whitehorn to offer his help and later came Dr. Samuel Phillips, a contract surgeon, with a relief train from Fort Leavenworth. In accordance with accepted practice Dr. Whitehorn ordered barrels of pine tar burned at the open windows of the hospital. By the end of the week the epidemic was under control, but seventy-five or one hundred persons had perished in the brief onslaught. One Episcopal preacher recalled conducting fifty-seven funeral services during the attack.[51]

A few of the early settlers in the Fort Riley area who had the misfortune to visit the camp also died of this virulent disease. One was the son of a Maine carpenter who had come to Kansas hoping to find work. This forgotten incident can stand for the silent heroism of thousands of early Kansans who faced death and suffering with incredible courage and dignity. One of the carpenter's sons was suffering greatly from ague; the other had gone to Fort Riley for medicine. There he contracted cholera and within three days he was dead. Ironically lacking lumber, the carpenter-father and brother fashioned a crude coffin from the boards of their wagon box and buried their loved one. "The following day," according to a first-hand account, "the other son was stricken; there was no one to send for doctor or medicine,

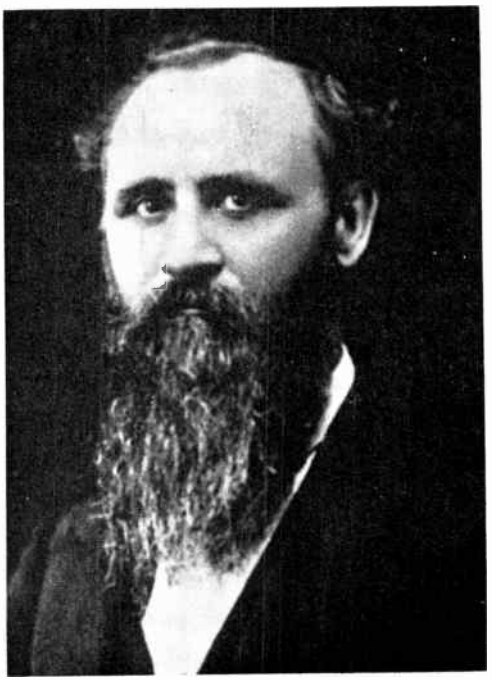
and after two days of extreme suffering he died. The heartbroken father with no one to assist made a grave as best he could, placing boards at the bottom simulating a coffin though not nailed together. . . with his remaining strength filled the grave with earth, barely able after this exertion to creep into the house and to the bed, he laid [*sic*] down expecting to die alone." Fortunately he was found and nursed through the winter. The following spring he started his journey back to Maine alone.[52]

For a decade Kansans were free of this frightful pestilence. Then came alarming reports of its prevalence in Asia, its invasion of India, and assault on Europe. Now it stood poised on the Atlantic. Warning came from the Leavenworth Medico-Chirurgical Society in 1865 that experience proved that once having established a base of attack, "it sends detachments along the great lines of travel, never halting at any obstacle until every important community has been reached, and compelled to furnish its quota to the armies of the dread King." Along the great lines of travel in America it came in 1866, from New York and New Orleans, across the mountains and up the Mississippi, along the Chisholm Trail and the new Union Pacific tracks into Nebraska and Kansas. By June, 1867, it was racing along the chain of forts and military posts in Kansas. Patrols and men on leave spread it. New settlements along the Union Pacific line, such as Ellsworth, were decimated and almost deserted. Newspapers were reporting death in seven out of ten cases at Ellsworth for want of physicians. Doctors were asked to volunteer to go there. Five heroic doctors from Topeka and Manhattan answered the call. A missionary from St. Mary's mission fell fatally ill while ministering to the sick, and four Sisters of Mercy were reported on the way to Ellsworth.[53]

Other towns near the forts and trails felt the brunt of the attack. Leavenworth, by reason of its proximity to the fort, was apprehensive from the first. Newspapers in that city urged cleanliness, boiling of water, and the liberal use of disinfectants such



GOVERNOR CHARLES ROBINSON
Courtesy of the Kansas State Historical Society, Topeka



JOSEPH P. ROOT, M.D.
Courtesy of the Kansas Medical Society

Tiffin Sinks, M.D.
Courtesy of the Kansas Medical Society

Cornelius A. Logan, M.D.
Courtesy of the Kansas Medical Society

as carbolic acid and chloride of lime. Stagnant pools were to be drained, offal and rubbish to be burned, and manure piles to be transferred to the Missouri River. Police were ordered to make a thorough examination of the sanitary conditions of the city. Boats landing at Leavenworth were to be inspected south of the city on the quarantine grounds opposite the pesthouse. In Fort Scott the *Monitor* headed a story on the impending cholera invasion "Clean Up!" Both Leavenworth and Fort Scott, however, reported cases of the disease despite their precautions. Wichita lost twelve settlers to the plague, but the Wichita Indians suffered much worse. Several hundred of the Wichitas perished along the Chisholm Trail while traveling by government order to a reservation in Oklahoma. At one time eighty-three Indians burned in a prairie fire because they were too weak to escape the flames. For years, according to one historian's account, Indian skeletons marked the trail from Wichita to Oklahoma.[54]

The Kansas forts were hit hardest of all. Fort Riley, site of the 1855 disaster, lost twenty-seven men in the autumn of 1866 as a result of cholera infection brought by cavalry recruits from Carlisle Barracks in Pennsylvania. The following June it broke out again, this time while several companies were already on the march to Fort Harker. At Harker a calamity of the first order followed. An eyewitness description of the 18th Kansas Regiment, which left Harker in haste and camped near Fort Zarah, vividly portrays a camp full of screaming cholera patients. "Men were seized with cramping of the stomach, bowels, and muscles of the arms and legs. The doctor and his medicine were powerless to resist the disease." The following morning "found five dead and thirty-six stretched on the ground in a state of collapse. These men had no pulse at the wrist, their hands were shrunken and purple, with the skin in wrinkles, and their eyes wide open." The regiment buried its dead, wrapped the sick in blankets, and headed rapidly southwest for Fort Larned where there was an army hospital. A medical hero for

this caravan of mercy was found in a Dr. Squire who hurried from wagon to wagon visiting his patients, fighting by massage and stimulants to keep up the circulation in their bodies, and to keep their pulses going. Upon reaching Fort Larned he continued his indefatigable labors, only to fall himself a victim of the cholera three days later.[55]

Back at Fort Harker the toll of the dead mounted, including a woman who died in childbirth, the wife of the post surgeon, and a sergeant and his wife who left four little children alone and homeless. The children were taken back to Leavenworth by the Sisters of Mercy who had come to the aid of nearby Ellsworth. The bereaved and overworked surgeon who was reported "unfitted for duty from physical and mental prostration" was George M. Sternberg, later a famous surgeon-general of the United States. By the close of the epidemic, cholera had claimed thirty-five lives at the fort and another 150 in the surrounding area.

From Fort Harker the pestilence was carried west to forts Hays, Zarah, Larned, and Dodge. Virtually every military establishment in the state felt the ravages of the disease. In all, according to official reports, 156 troops died of cholera in Kansas in 1867, an estimate that does not include the numerous civilian employees at the forts. Next to Fort Harker, Hays with twenty-four deaths and Dodge with fifteen suffered the highest toll.[56]

The impression of this terrible though brief onslaught of cholera on Kansas was profound. No other disease excited such fevered preparations, fears, and feelings of helplessness. Medical men shared naturally in the general excitement. "Where is our board of health?" screamed the *Leavenworth Medical Herald*. "Will they never get above the idea of slop-carts and foul privies?" In a far-seeing article, the editors of this journal made clear their convictions that cholera was always a contagious disease and could not break out *de novo* in isolated places. Even a community like Ellsworth, isolated in central Kansas, had been in-

fected by travelers and soldiers flocking west along the railroad route. "In this great moving flood," they wrote, "the cholera germ has been transported to Ellsworth." Such being the case, the haphazard cleaning of privies and burning of rubbish could have little effect. In the words of the authors, it was "a recognized fact that the excretions of cholera cases contain the germ of the disease." Their proper disposal was the beginning of progress in controlling cholera. Most medical men of the late 1860's, however, clung to the miasmatic theory of the origin of cholera. They still believed that the disease could be generated by filth or animal and vegetable remains. As late as 1873, when the last serious invasion of cholera took place in Kansas, those concerned with public health were still paying more attention to cleaning up back yards and alleys and spreading disinfectants than to the cleanliness and care of cholera victims. Fortunately this last attack was light and confined largely to the eastern border area of the state.[57]

Dramatic as these epidemic onslaughts of cholera and smallpox were, they were not the workaday killers which carried the majority of Kansans to their graves. Among infants the great killers before 1880 were a loosely diagnosed group of digestive and bowel ailments which went under such names as "diarrheal diseases," "summer complaint," and "cholera infantum." Impure milk, infected water, and outdated ideas about child-rearing made the first five years of life the most dangerous. Over half of all deaths in Lawrence between 1870 and 1880, according to one of the early statistical records kept in the state, were of persons under five years of age. The great majority of these died in their first year. For all persons dying in Lawrence during these ten years the average age was eighteen years. Foremost among the killers were diarrheal diseases, consumption, acute diseases of the lung, and malaria. Only two persons died of smallpox during this decade, but twenty-one infants perished from "teething," if the medical records are to be believed.[58]

Most of the advice given young mothers of the 1870's by regular physicians can stand the test of time. Virtually all doctors advised a diet of exclusively mother's milk for very young infants. Fresh air, clothing adapted to the season, and the avoidance of extremes of temperature were usually advocated. When the baby was sick, a well-ventilated shaded room was urged, together with warm beef tea and creosote for stomach upset, and calomel or chalk for diarrhea.[59]

By 1880 diphtheria was becoming more common among children, though reports of scattered local epidemics were known in the 1870's and earlier. It was mentioned in the Lawrence statistical survey of 1880 as an ailment which a few years previously had been "unknown" but now was "one of the most fatal of diseases." The doctor was as helpless before diphtheria as before most of the germ-borne afflictions of the pre-bacteriological age. In the absence of specific treatment his duty was chiefly to care for his patient through the course of the disease. Nevertheless the *Chetopa Advance* in 1876 warned doctors to be ready to do what they could, for "The pale horse is coming toward Labette county; its rider is diphtheria. Rachel will weep for her children dead in our households before long. Let every doctor in the county have his lamp trimmed and be ready."[60]

The doctor's lamp was trimmed as well for midnight visits to young sufferers from scarlet fever about this time. This acutely infectious disease was distinguishable only with difficulty from diphtheria, and some doctors even regarded diphtheria as a form of scarlet fever. In 1877 a wide-ranging epidemic of the latter spread across Kansas, striking hard at Topeka and many cities and towns to the north. In Topeka, a local newspaper reported the sickness in every part of the city. A physician warned Topekans through a column in the newspaper that this "infectious miasma has the power of clinging to exposed articles for a great length of time." Schools and churches were closed, and children were warned against visiting the library. A Baldwin man came

to Lawrence to buy a coffin for the third of his four children to die of scarlet fever, and little hope was held for the fourth. Not until the end of the year did the attack subside.[61]

Among older Kansans tuberculosis and especially pneumonia were the most deadly of diseases. The Kansas climate was held by doctors to be particularly favorable for sufferers from "consumption," as it was usually called, because of its dryness and median elevation. More likely it was the youthfulness of the early settlers and their vigorous out-of-doors life which kept the tuberculosis rate low relative to that of the eastern states. Pneumonia, or "lung fever," was the chief cause of death among older settlers from the beginning. Constant exposure to the weather, poorly ventilated and constructed houses, and the lack of fuel for heating undoubtedly contributed to the fatalities from this undramatic but mortal disease. Then, too, the stoic attitude of the pioneer toward such trifling ailments as colds, coughs, and "grippe" made taking to one's bed unthinkable as long as one was able to stand. Disease was something to be endured, and many taxed the limits of their endurance beyond all reason. Even the terrible mortality rates from infectious disease were accepted almost fatalistically as part of life. There was little time for mourning or fear or concern for tomorrow.[62]

Terrible though the suffering of the early pioneers was, no voice was raised to question the healthfulness of their new western home. In early Lawrence, where the mortality rate was fearful, the editor of the *Herald of Freedom* claimed that "the health of the settlers has been almost uninterrupted." He had not met with a single case of severe disease. From the Neosho Valley, the scene of quite terrible suffering from fever and ague, came a letter saying that stories of unhealthiness there were the work of weaklings seeking an excuse for leaving or rich men's sons not used to hard work. From Leavenworth came the report that doctors were "a useless appendage, as no one ever thinks about getting sick in this country." Topeka was claimed by an editorial

writer of that city to be "one of the healthiest towns in the State, or in the Union." In Belle Plaine, Kansas, the health of the community was so good "that were it not for a first class croquet ground" the doctors would find time hanging heavy on their hands.[63]

Much of this proud boasting was a natural part of every new community's effort to boast of its own advantages in order to attract new settlers. But doctors, too, felt the new state was unusually healthful. A survey by the State Medical Society in 1876 showed that every doctor interviewed replied affirmatively to the question, "Do you believe the State to be as healthy as the one from which you came?" Many papers read before the medical associations of the state testified, too, to the belief of Kansas doctors that their state had been thus far remarkably healthful. Few doctors, however, would have gone so far as the medical columnist of the *Fort Scott Monitor,* who penned this poetic tribute to the health-giving qualities of the Jayhawker state:[64]

Our beautiful wide spread prairies, with their delicate swells and fall, formed "as if God's finger touched, but did not press," is making Kansas have a soil that is unsurpassed in richness. Our climate is pure and invigorating and health-giving, the atmosphere being light, and singularly bright and sparkling. The breeze that constantly sweeps over the prairies is redolent with vigor, banishing incipient consumption, and uprooting the seeds of deep-seated diseases, engendered by the vassalage of a sisypian [*sic*] labor, or a long residence in the thickly populated places of the East; imparting an appetite and fruition which only such an atmosphere can impart—and making the climate in itself a panacea more potent than the science of physicians, and more rejuvenating than the visionary "Fountain of Youth."

On the whole, the health of Kansans in their first quarter-century was about what one might expect—good by contemporary standards but no better than that of Nebraskans or Iowans. They survived well the initial onslaught of malaria and other fevers but so had other Americans before them. They suffered

less from the great contagions which took heavier tolls farther east, but then their communities were more isolated and thinly populated. They offered up fewer sacrifices to cancer, heart disease, and kidney afflictions—primarily diseases of old age—but Kansas was a youthful state. Their children survived the perils of infancy with appalling losses just as did their cousins to the east. At a time when the practice of medicine was primitive and the public health movement scarcely born Kansans had the good fortune to be young, rugged, and courageous. This "head start" would serve them well in the new scientific age in medicine and public health which dawned in the 1880's. The time would come when Kansans would be justly proud of their achievements in public health and the healthiness of their state.

Before Kansas doctors could make the transition from pioneer to scientific medicine, much remained to be done. Standards of medical practice must be raised, good medical schools made available to Kansas youth, and hospitals founded where modern medicine might be practiced. Societies and journals must be established to make easy the flow of medical knowledge and experience. Greater specialization in medicine must prevail before Kansas doctors could master the new knowledge and techniques from France and Germany. With one exception most of these things did not come during the pioneer period of Kansas medicine. An occasional specialist, hospital, or medical journal might be found in young Kansas, it is true, but their rarity only gives force to the generalization.

The one notable exception was professional organization. From the first Kansas physicians showed a strong interest in the establishment of medical societies. Their reasons were various. Some wanted to raise standards of practice or end the shameful advertising competition between doctors in early newspapers. Typical advertisements of doctors included loud self-praise, endorsement of their skill by leading citizens or medical

lights in the East, or claims that no charge would be made unless a cure was effected. If a doctor were too modest to trumpet his own virtues, he might persuade a colleague to pen statements like "I doubt if there is a physician in the state who is conducting a larger and more successful practice than Dr. X."[65] Even more irritating was the competition from quacks and irregular doctors who were nowhere barred from practice, however dim their claims to medical knowledge and skill. Many meetings of early Kansas medical associations were devoted to the problem of how to interest the public in protecting itself from quacks and empirics. Doctors championed, too, the cause of public health through their societies. No group was more instrumental than the state and county medical societies of Kansas in the final achievement of a state board of health. Public health measures, quarantine laws, reporting of vital statistics, and licensing of physicians—these were all worthy goals for which the early medical societies fought, sometimes successfully.

It was the doctors of Leavenworth who established the first medical society in Kansas. In August, 1858, the enterprising practitioners of that city drew up a constitution for the Leavenworth Medical and Surgical Association (later renamed the Leavenworth Medico-Chirurgical Society). Among the founders and early presidents of this pioneer association were such illustrious names in Kansas medicine as Tiffin Sinks and Cornelius Logan, co-founders of the state's first medical journal, Samuel Phillips, the hero of the cholera epidemic at Fort Riley, J. W. Brock, the pioneer in operating for ovariotomy, and Moses S. Thomas. Sinks, Logan, and Thomas were all later presidents of the state medical society. The birth of this Leavenworth society was greeted enthusiastically by the local press, which commended the organization as "one eminently calculated to advance and protect the interests of the medical profession." That the Association concerned itself with all the important medical issues of the day has been noted from time to time in these pages,

but little is known of the week-by-week conduct of the Association's affairs and the kind of medical papers discussed. It is known that in 1859 Dr. Sinks presented a spirited paper on drug adulteration in which he excoriated druggists for this practice and doctors for acquiescing in it. He called for public regulation of drugs and doctoring, complaining that "anyone who chooses is not only permitted to dispense medicines, but also to administer them; consequently those who have expended time and money to qualify themselves for their respective callings are placed on an equality with mere pretenders, the inevitable tendency of which is the prostitution of talent to ignoble purposes."[66]

There must have been other attempts to organize local or even county medical societies in the 1850's but these attempts are now forgotten. Only a record of a call for an organizational meeting of the doctors of Doniphan County in late 1858 remains.[67] This impulse, too, must have faltered, since we read later of the organization of a Doniphan County Medical Society if 1867.

In 1859 came the incorporation of the Kansas Medical Society. Included in the charter were the names of its twenty-nine incorporators. In actuality, the framing of the charter was the work of a few physician-legislators led by Dr. Joseph P. Root of Wyandotte, soon to be lieutenant-governor of the territory. To gain legislative support incorporators were invited from a wide geographic area. Foremost among the signers was the name of Charles Robinson, normally a foe of medical organizations, but willing for some reason to give support to this venture. This colorful native of Hardwick, Massachusetts, a physician turned politician, a forty-niner who had returned to Kansas, would soon be the first governor of Kansas. His support of the charter was invaluable, though he played no part in the later life of the Society. Another incorporator, Sylvester B. Prentiss of Lawrence, became the Society's first president. Like Robinson a native of Massachusetts, Prentiss had practiced briefly in New

York and then gone to Georgia to regain his health. In 1855 he settled in Kansas and became surgeon-general of the Kansas militia three years later. Other prominent incorporators were Alonzo Fuller, an early mayor of Lawrence, Thomas Lindsay, legislator and physician, and the distinguished General James B. Blunt.[68]

Unusual powers were given the Society under its charter. Most important, the Society was empowered to grant licenses "to all respectable physicians, non-graduates, who shall, on examination, be found qualified for the practice of medicine and surgery, or either, to practice those branches for which they are qualified." This vaguely worded sentence gave the Society in theory an immense power to control medical practice in Kansas. In practice, this power to license was used sparingly, and it carried little weight so long as unlicensed doctors were able to practice freely in the state. Other unusual features of the charter were the power to enforce regulations of the Society at law, including fines up to fifty dollars, and the declaration that the incorporators and their successors were to have "perpetual succession forever."[69]

Actual organization of the Society took place in two meetings a year apart at the Eldridge House in Lawrence. A constitution and by-laws were adopted at the second meeting in 1860, together with the code of ethics of the American Medical Association. Dr. J. P. Root, chief organizer of the Society and now lieutenant-governor of Kansas, succeeded S. B. Prentiss as president in this 1860 convention. Like Governor Robinson, Root had had little time for medicine in territorial Kansas. He had come to the territory from Connecticut with the Beecher Rifle and Bible Company, settling in Wabaunsee. An early captive of the proslavery faction for his ardent political activity, he had witnessed the attack on Lawrence and thrown himself even more vigorously into the free-state cause. He was successively senator in the free-state legislature, member of the Territorial

Council, and first lieutenant-governor of the state. Following the Civil War he was appointed minister to Chile in 1870 by President Grant and became something of a hero during a smallpox epidemic in that country.[70]

During the Civil War, Root and many other early members of the Kansas Medical Society served as military surgeons, and the Society went into eclipse. No meetings were held between 1861 and 1866. The first attempt to revive the Society after the war came in late January, 1866, but a quorum was lacking at a meeting called in Topeka. Root, still acting as president, adjourned the meeting with a call for a second meeting in Lawrence in April. This time a quorum was present. Twenty-six new members were elected, including Cornelius Logan, the Nestor of the profession at Leavenworth, now chosen as third president of the Kansas Medical Society. No physician in the state's history has left the stamp of his personality on so many facets of the practice of medicine in Kansas as Dr. Logan. Author of a distinguished report on the state's sanitary relations, he was a founder of Kansas' first medical society, Kansas' first hospital (St. John's in Leavenworth), and Kansas' first medical journal. As a medical editor, he showed literary skill, discrimination, and a scholarship surprising in a young community. He abstracted, reviewed, and occasionally translated articles from French and German medical journals. A native of Massachusetts (like so many eminent physicians of early Kansas), in 1856 he came to Kansas, where he practiced medicine and played only a minor political role. During the war he was chairman of the state Board of Medical Examiners. In 1872 he was an unsuccessful candidate for the United States Senate but was appointed to succeed Dr. Root as minister to Chile in 1873. While minister, he served as arbiter of a boundary dispute between Bolivia and Chile and later as arbiter of a claims dispute between Peru and Chile. He rounded out his governmental career as minister to the Central American States in 1879 and

again to Chile in 1883. Though he moved to Chicago late in his career, Kansas continued to be proud of his achievements in medicine and diplomacy.[71]

Logan's presidential address to the Kansas Medical Society in 1867 stressed the fundamental work of the Society: the elimination of quacks and the encouragement of professional ethics in the dealings of physicians with each other and their patients. In his medical journal Logan kept up a steady attack on quacks and pretenders and public indifference to their lack of qualifications. "What is the abstract value of the degree of M.D. in this country?" he demanded in an editorial. "Nothing—absolutely and emphatically *nothing*! But why? it may be queried. We answer, simply because we have no particular or specific standard of value with which to compare it." Logan asked, too, that the Kansas Medical Society use its power to license deserving doctors without degrees as a means of raising standards. At the 1870 meeting of the Society, Logan charged that "we are being flooded with medical adventurers of all hues and pretensions" and introduced a resolution, subsequently passed, that the Kansas Medical Society and the other state societies (i.e., the homeopathic and eclectic societies, of which more later) set up boards of examiners. Candidates for a license from the Society must prove that they were twenty-one, had received a "proper general education," and had studied medicine three full years, one-half of which study must have been in a regular medical college. Examinations would then be given by the board in anatomy, physiology, surgery, and other medical subjects. After this system had been put into practice those doctoring without a license would "be treated ethically as irregular practitioners."[72]

The Kansas legislature at the behest of its half-dozen physician-members had given the spur to such arrangements by a law passed that same year making it illegal to practice medicine without a diploma from a "reputable" medical school or a state or county medical society. Doctors who had practiced for ten

years were exempt, while those in practice five years had two years in which to qualify. In operation the law was cumbersome and practically unenforceable. Fraudulent medical schools with short terms and no facilities obliged those who wanted a short cut to a professional license. The other state societies and many county societies refused to co-operate in the program. And worst of all, the Kansas Medical Society had no means of forcing an aspiring physician to appear before its examining board and no way of punishing him if he did not. One disgusted doctor, A. M. Wilder of Lawrence, was ready by 1872 to let the federal government enforce medical licensing either through the American Medical Association or a medical bureau in Washington with power to limit the number of medical schools and professors as well as appoint a national board of examiners.[73]

Dr. Logan was also active in a campaign to require registration of marriages, births, and deaths in Kansas. With J. P. Root and Tiffin Sinks, he drew up the draft of such a law and presented it to the legislature of 1867. But the legislature was uninterested, and a disgruntled Logan complained that "the moral obliquity of legislators generally is so great that they cannot even conceive the possibility of a disinterested motive." Dr. Sinks remained active in the campaign well into the 1870's, following Logan's appointment as minister to Chile. In his own presidential address to the Kansas Medical Society in 1876 Sinks appealed once more to doctors to put pressure on their local legislators on behalf of a vital statistics law.[74]

To make the Society more than an annual convention it was vitally important to stimulate the growth of local medical societies in the state. In the charter of the Kansas Medical Society was a provision that any three of its members might organize an auxiliary association in any county of the Territory. After the Civil War the revived state society "earnestly requested" its members in 1867 to form county and city associations in their home areas. That this had its effect is clear from the

large number of county societies whose histories date from this year. Atchison, Doniphan, Jefferson, Riley, and Bourbon counties, to name only a few where dates of organization are certain, saw the birth of county medical societies in 1867. Some of these did not remain continuously in existence. The Bourbon County society, for example, is found organizing again in 1871, with a woman, Dr. Sarah Hall, among those in attendance. Her presence precipitated a minor crisis. A warm discussion turned on the question of whether a woman could be a member of the county and state societies. A cautious decision was taken to refer the matter to the state society. The following March, at the annual meeting in Leavenworth, Dr. D. W. Stormont resolved the question when he moved the admission of another woman physician, Francesia Porter of Lawrence, to the Kansas Medical Society. The vote was twenty to five in favor of her admission. She was reportedly the first woman in the United States to be admitted to a state medical society.[75]

More local societies were formed during the next few years. An attempt was made, whether successful is not certain, to organize a joint society in Jackson and Brown counties in 1867. The following year a regional association was formed in the Stranger Valley, with representatives from Atchison, Leavenworth, Oskaloosa, Troy, Holton, and other towns on hand. To the south an Osage and Southern Kansas Medical Association made its appearance in 1870.[76]

One of the more flourishing of these early county societies was the Shawnee County Medical Society centering in Topeka. Organized in 1866, the Society had as its first president a returning Civil War surgeon, Mahlon Bailey, who was later to head the state society. Bailey, an inveterate adventurer, had joined the gold hunt in the Pike's Peak region in 1859 and was later to volunteer for service under General Phil Sheridan in the last Indian uprising in Kansas in 1868. Among the ambitious projects of this Shawnee County society in its early years

were a medical school, a hospital, and a dispensary, all to be located in Topeka.

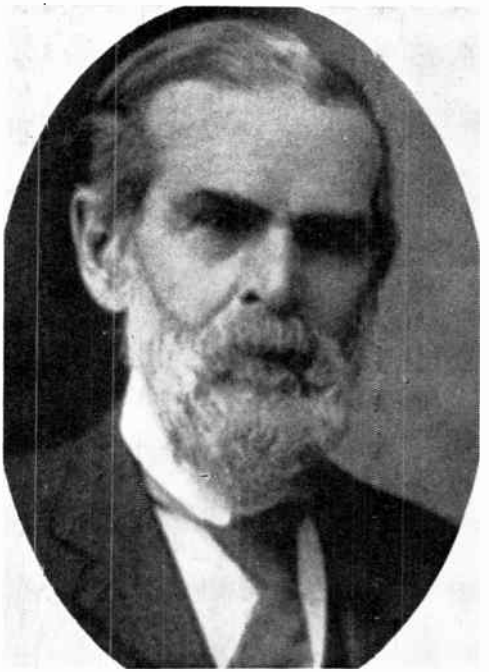
It was difficult to keep many of these local societies alive in an era of scattered but growing practices, restless doctors, and poor roads. As late as 1867 the *Medical Herald* could speak of "the very bad condition of the roads; rendering it almost impossible for those not living on the railway lines to travel at all." Many county and regional societies, notably the later Golden Belt Medical Society along the Union Pacific road, drew their members from towns served by railroads.[77]

Some feared even for the life of the state society as the number of members present for the annual meeting dropped steadily in the late 1860's to a low of seven in 1869. Many blamed the policy of meeting always in cities close to the eastern border of the state, while others were critical of the lack of a permanent site for the meetings. Tiffin Sinks called for a permanent location for the annual meetings during his presidency in 1876, but this proposal was voted down by the Society. As a scholarly man Sinks was much concerned that the Society was collecting no library and museum by its system of itinerancy. He reminded his hearers that numerous railroad lines in Kansas had cheapened travel so that distance was no longer so important. In fact, the attendance at the Society's annual meeting began to climb during the middle 1870's and passed fifty in 1875. Total membership in the Kansas Medical Society jumped from 58 in 1869, the point of lowest interest, to well over a hundred by 1879. Leavenworth continued to claim the largest number of members in the Society as it had from the beginning, but Topeka and Atchison were growing in representation. Only Lawrence seemed to be playing a smaller role in the Society's affairs than in the early days.[78]

At the annual meetings medical papers were the most important item of business. When those responsible for papers were unprepared or failed to appear, volunteer papers from the

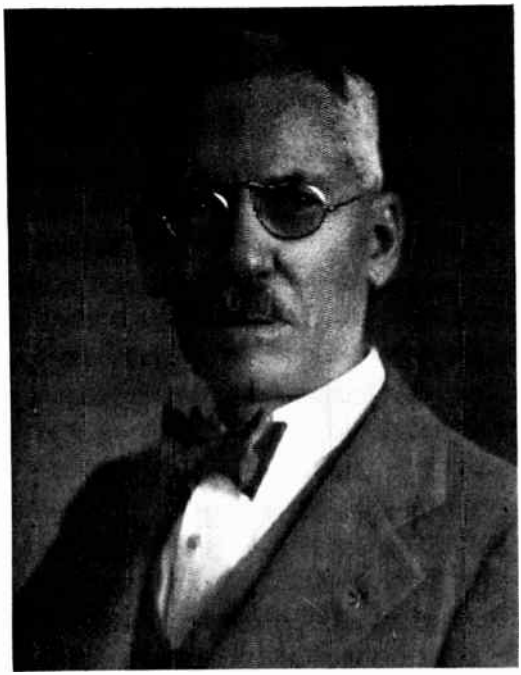
floor were called for. In 1870, for example, extemporary talks were given on calomel, the medical properties of ironwood, and an unusual case of dislocation of the hyoid bone. Many early meetings were dominated by such informal reports of the doctors' own experiences. At the Wyandotte meeting in 1871, to note one further example, one doctor exhibited a human skull revealing several anomalies, another discussed a case of loss of memory from inhaling nitrous oxide, and a third introduced a patient with an unusual eye affliction. Formal papers were likely to be reviews of the medical literature on some common disease, frequently salted with the author's personal experiences. To stimulate original papers, the Society offered a prize of five dollars in 1867 (later raised to fifteen dollars) for the best essay on the endemic diseases of Kansas.[79]

At the close of the pioneer epoch, several presidents of the Society looked back on what had been accomplished and what remained yet to be achieved. One president, H. K. Kennedy of Topeka, director of the pesthouse there, asserted that the Society had failed to live up to the high hopes of its founders. Membership of the Society was still but a fraction of the state's physicians, he pointed out, committees had not carried out important assignments, and little impact had as yet been made on health and medical practice in Kansas. Even stronger was the plea of W. L. Schenck of Osage City to the membership in 1878. Medical men, in his view, were responsible for state hygiene whatever the criticism or indifference of legislators. "We are to see," he declared, "that laws are executed prohibiting murder by smallpox, cholera, scarlet fever, and like diseases." If legislators demur, show them the foul air, impure water, and bad drainage which invite disease! Show them that one-half of all Kansas children die needlessly before reaching their fifth birthday! Show them how vaccination, parks, public baths, and vital statistics laws will prolong life and promote health! The people must be protected, too, against a condition where "the



W. L. Schenck, M.D.
Courtesy of the Kansas Medical Society

Andrew H. Fabrique, M.D.
Courtesy of Mrs. George T. Nolley, Dr. Fabrique's daughter



William E. McVey, M.D.
Courtesy of the Kansas Medical Society

Dean Samuel W. Williston
Courtesy of the Watson Library

most ignorant pretender may dub himself doctor, and administer arsenic and antimony." And quarantine must not be weakened by selfish merchants and timid legislators. He called attention to a recent scarlet fever outbreak in Wichita: "Do her people require any more little mounds to prepare them for preventive medicine?"

Dr. Schenck now rose to his peroration. "We believe the life and development of the men and women of the State are as important to its interests and to humanity, as the life and development of its hogs and potatoes, and we believe they are capable of expansion and prolongation, and we should ask, we should demand, that the State of Kansas shall manifest an equal interest in them, and that its legislators shall enact a law organizing a State board of health, giving it full power to protect the interests under its care."[80]

Strong words were followed by strong action. The demand for greater state responsibility for the health of Kansas citizens rose in volume in the late 1870's and became a crescendo by the middle 1880's. Kansas stood on the threshold of a revolution in medicine and public health and men like Schenck did much to push the state into the new era. Within seven years of Schenck's powerful challenge, Kansas had a board of health, a stronger medical practice bill, and a law regulating the drug trade. In that same period would come the launching of a medical school, a burst of hospital construction, and a remarkable growth of specialization in medical practice. News of Koch's identification of the tubercular bacillus and other medical wonders were likewise on the way. Medicine was becoming a science, and the unschooled prairie doctor a memory of the past. But we are getting ahead of our story.

Schooled or unschooled, the pioneer doctor had made an immense contribution to the health and welfare of early Kansas. He had been faithful, by and large, to the profession he

had learned or adopted. Old diaries and letters tell us that "Doc came every day to change the bandages" or that "the doctor stayed from Tuesday to Friday." Instances of real heroism in the face of disease, suffering, and danger are not hard to find. The people of Riley County have not forgotten Dr. Samuel Whitehorn, who carried only his fresh medical diploma to do battle with the cholera at Fort Riley; nor will citizens of Trego County soon forget Dr. A. B. Jones, who swam the Saline River in flood stage to reach a dangerously ill patient on the other side.[81]

Doctors made their mark in every line of endeavor in the young state. They had been dentists, veterinarians, teachers, journalists, preachers, and politicians. They had been mayors of a score of towns or more. They had held high posts in state government and lesser posts in countless villages and cities. They had founded a dozen towns and at least two, Hepler and Furley, still bear their names. They had built flour mills, stores, bridges, and ferries. They had written books and poems, one of them later famous as the song "Home on the Range."

This, then, was the Kansas doctor. Generous, versatile, hard-working, on occasion brave, anxious to learn, resourceful, perhaps a trifle unpolished in manner and speech, he was the epitome of the best and the worst in the Kansas pioneer. He had lived his life in uncertainty, even danger, had seen his state survive a perilous infancy, had grown old in the service of his profession, and now saw a new generation of doctors coming to take his place. The new doctor would be better educated, more scientific, have more equipment, but would he match his forebear in faithfulness and concern for human suffering?

II

Kansas and the Rise of Scientific Medicine (1879-1904)

A MORE EXCITING EPOCH for the life of a doctor than the 1880's and 1890's can scarcely be imagined. Those were the years when a host of discoveries and events in medicine crowded for his attention. From France came sensational reports of the work of Louis Pasteur in immunizing against hydrophobia and anthrax. From Germany came word that Robert Koch had found the bacillus of tuberculosis, had tracked down the source of cholera, and was on the trail of other killers. From England came more surgical papers from the pen of Joseph Lister, whose system of antiseptic surgery was now in vogue everywhere. The "reign of the microbes" had begun. Between 1880 and 1900 the germs responsible for bubonic plague, diphtheria, and typhoid fever, as well as tuberculosis, cholera, and dozens of other diseases, were discovered. These rapid-fire discoveries inspired a tremendous burst of pioneering in surgery, provided a new and broader basis for public health work, and opened up a new world of protection against illness through immunization.

For Kansas doctors these years were made doubly exciting by the colorful pageant of events against which their own lives were played. By the late 1870's the great cattle drives north from Texas were reaching their peak, and Dodge City had replaced Abilene, Ellsworth, and Wichita as the "Queen of the Cow Towns." Wild and woolly Dodge, as the citizens of eastern Kansas called it, was the home of Dr. T. L. McCarty, who treated many of the gunshot wounds inflicted by Bat Masterson and Wyatt Earp. And although the medical profession cannot claim him, the town's first dentist is known to millions of American youngsters and movie-goers as Doc Holliday, a fast man with a gun as well as with dental forceps.[1]

Immigrants were pushing into the farthest corner of the state by the 1880's, aided by the many railroad lines which now crisscrossed Kansas. The depression, grasshoppers, and drought of the 1870's were forgotten, and venturesome settlers were convinced that, though beyond the 100th meridian, Kansas climate was becoming wetter to accommodate them. In 1888 the last of the state's counties was organized. Far western settlers faced anew the weakening bouts with ague and fever, made worse by the unseasonably heavy rains of the middle 1880's. Sod houses were so saturated with water, according to a Norton County doctor, "that they have become damp and musty, sufficient to spread the germs of zymotic diseases."[2]

Heartened by the surprising weather and glowing reports of good crop yields, the flow of immigrants to central and western Kansas reached flood tide. Farmers and fortune-seekers from the Old Northwest and the north-central states, Negro exodusters fleeing poverty and discrimination in the South, Mennonite flocks from Russia and Germany—all swelled the population of the growing state. Between the census of 1880 and 1890 the number of Kansans jumped almost 50 per cent to more than 1,400,000, the largest absolute increase in Kansas history.

Then came the hard times of the late 1880's and 1890's. Drought began once more to parch the fields, money became scarce, mortgages were called in, and farms were abandoned or surrendered to creditors. The flow of immigration faltered, halted altogether, and then backed up. "In God we trusted! In Kansas we busted!" read the signs painted on hundreds of wagons fleeing the disaster-torn state. Rainmakers plied their trade in the hard-hit central and western regions. Farmers were selling their land for fifty cents an acre in the Dodge City area. Samuel Crumbine, soon to be state health officer, was offered a farm by a Dodge City man in payment of a thirty-five dollar debt. Merchants without customers were forsaking their busi-

nesses and towns. Some southwestern counties lost more than half of their people in the 1890's.[3]

In their frustration, Kansans, many doctors among them, turned to politics to remedy their plight. Long-standing grievances against the railroads were now aired with a vengeance: excessive rates, control of warehouses and elevators, and huge land holdings. Low farm prices and high tariffs, unreasonable interest rates and deflated currency came in for angry criticism and denunciation. The currency question had already brought some of the doctor-politicians of territorial days out of retirement. Charles Robinson and Joseph Root were both active in the Greenback Party, which sought in the 1870's and early 1880's to keep the currency inflated by issuing paper money. Root composed a "Cathechism of Money" which argued the Greenback cause, while Robinson ran unsuccessfully for governor on a Greenback-Labor ticket in 1882. Other doctors were very active in the Populist party, which by the 1890's was championing the cause of free silver as a means of currency inflation. A Linn County physician, S. M. Brice, wrote in true Populist style that "the infamy of the gold pirates in control of both old parties grows blacker as we examine it more closely." Another doctor, Stephen McLallin, headed the Kansas delegation to the first national convention of the Populists in Omaha. Even the *Kansas Medical Journal,* published in Topeka by the distinguished Dr. William E. McVey, entered the heated debate with an editorial which concluded: "There is something wrong in the financial world for professional and laboring men generally. There is plenty of money, but it is held by comparatively few persons. . . . Why was silver demonetized in the United States? Who asked for its demonetization?" By 1896, the year of the climactic struggle between the Populist and Democratic standard-bearer, Williams Jennings Bryan, and William McKinley, champion of sound money and the gold standard, Kansas doctors had made up their minds. If they voted like most Kansans

that year, they cast their ballots chiefly for the unsuccessful Bryan.[4]

With one eye on politics, the Kansas doctor kept the rest of his attention glued on the practice of medicine. While physicians in western Kansas were repeating his pioneer experiences, the doctor of eastern Kansas, especially in the cities, was beginning to build hospitals and sponsor medical schools, and specialize in a single aspect of medicine. And he was becoming more scientific. Samuel Whitehorn, a quarter-century after his battle with the cholera at Fort Riley, could be heard telling the Kansas Medical Society in 1878 that "I believe the microscope and test tube will be the chief agents and methods in ferreting out diseases and their causes and cures." Wichita doctors were meeting daily to study pathology, about 1880, each bringing his microscope with him. Kansas doctors, societies, and medical journals were beginning to give their attention to antisepsis, Koch's postulates, visits to Pasteur's laboratory, and the advantages of European study. Articles with such titles as "A Kansas Doctor in Paris" and "Post Graduate Work in Europe" became more and more common. By 1900 no aspiring specialist would consider his education complete without a course of scientific study at Berlin, Vienna, Paris, Heidelberg, or Munich.[5]

Actually, most doctors began to accept Lister's germicidal technique before they would hear of the germ theory itself. Lister's work was practical and simple to repeat, and it brought results. But in the early 1870's and 1880's it took a good deal of faith to believe that organisms too small to be seen could be the cause of so much death and suffering in humankind. How did these tiny beings do their deadly work? Were they parasites? Did they produce some poisonous gas or miasma? Were they animal or vegetable? That redoubtable champion of public health from Osage City, W. L. Schenck, explained why he could not accept the germ theory in 1877, the year before his

stirring appeal for public health measures to the Kansas Medical Society. If germs were the cause of such diseases as typhoid fever or tuberculosis, he argued, then they must be present before the onset of illness. Then why had they not been discovered? To prove that they were present during the disease proved nothing. Their presence might be only incidental. Lister may have demonstrated that antiseptics kill germs but not that germs *cause* disease. From his own practice, he cited the case of a woman who developed childbed fever while living on the high prairie with no close neighbors. "Whence came the micrococci?" he demanded. For him there was no doubt, despite Pasteur, that disease poisons did originate spontaneously.[6]

Dr. Schenck was in good company. Such authorities as Max von Pettenkofer of Munich continued to deny the bacterial origin of typhoid fever, while N. S. Davis, the father of the American Medical Association, held as late as 1884 that diphtheria could originate *de novo*—1884, the year when Klebs and Loeffler announced the discovery of the diphtheria bacillus. It was a rare practicing doctor who accepted the germ origin of diphtheria much earlier than this, yet Charles C. Furley of Wichita had declared in 1878 that "if micrococci are not present, it cannot be true diphtheria." Furley, the only two-term president of the Kansas Medical Society, explained that the success of Lister's antiseptic dressings had convinced him that "there exists for each definite disease of infectious origin, a principle peculiar to itself, which is reproduced by the living germs of that disease, though it is impossible with our present microscope to distinguish the difference in some of these parasites." A remarkable statement, indeed, for 1878![7]

Throughout the 1880's the battle raged between the defenders and attackers of the germ theory. An article in a Kansas journal declared for the bacterial cause of childbed fever in 1882; and a prominent eclectic doctor stated during the following year that the "preponderance of testimony" favored the

germ theory. But at the same time a Wichita doctor was insisting that malaria was due to "some peculiar condition of the atmosphere, dependent always on some particular electrical disturbance." And somewhat later in the decade the editor of the *Kansas City Medical Index* chided American physicians, "not noted for ability or close investigation," as he expressed it, for believing that it is a multitude of unseen germs "which crowd and choke and irritate, consume and destroy vitality and function." Certainly the idea of a host of parasitic tenants housed in the human body was at first sight revolting. No one put it better or with more quiet humor than J. J. Wright at a meeting of the Lyon County Medical Society.[8]

He [Wright] said that the air we breathe, the water that we drink and food that we ate, swarmed with living organisms. He had witnessed the diagrams with feelings of repulsive interest, illustrative of the microscopic showing of the hideous animalculae that lived and moved and grew in a drop of Neosho water. He had seen fat thousand-legged bugs retreating from view from a particle of a prune placed under the microscope, and that since this showing he had excluded this fruit from his bill of fare. He thought there was a possibility of monkeying with these microscopic investigations so much that mere existence would seem so hazardous that life itself would become burdensome; at least he did not propose to turn the magnifying lens on another favorite article of food.

By the late 1880's proponents of the germ theory clearly had the upper hand. A survey reported to the Kansas Medical Society in 1889 showed all but one respondent answering yes to the question: "Do you accept the germ theory of fevers?" In a paper on cholera, W. W. Cochrane of Atchison, a former president of the state medical society (1872), remarked on how little had been known of this disease until Koch had isolated its germ cause in 1884. Some doctors were beginning to apply bacterial explanations not only to the common infectious ailments but also to infantile disorders. F. W. Bailey of Topeka argued con-

vincingly in 1891 that "micro-organisms are the immediate and specific cause of most of the bowel troubles of children." This meant that prevention through pure water and sterile milk was by far the most effective antidote for the high infant death-rate. Sterilization of milk was already advocated by a few doctors, as revealed by a discussion of 1889 at the Topeka Academy of Medicine. When at this meeting Dr. C. C. Green urged careful sterilization of all milk other than that from the mother, his colleagues generally applauded his views, though one argued that "there was too much importance attached to bacteria causing disease" and another predicted that sterilized milk would never "take the place of cow's milk."[9]

One curious heritage of the pre-bacteriological age which lived on into the 1890's was the "madstone" cure of hydrophobia. Although Pasteur had first successfully inoculated against this violent disease in 1885, Kansas doctors continued to apply the stone for almost another decade. A doctor in Paola and a druggist in Fort Scott were reported to own especially potent stones, which supposedly attacked the disease by adhering to the open wounds inflicted by a mad dog. These stones were supposedly made of porous, calcareous matter found in the stomach of cows and other animals, and they "cured" by "drawing out" the virus from the wound. The longer the stone adhered to the wound, the more poison was being absorbed. A most interesting news item of 1891 describes the experience of a Leavenworth man bitten by a mad dog and taken to Kansas City for treatment. A madstone was applied to the wound and, according to the account, it adhered successfully eight times but to be safe the patient was advised to go to the Pasteur Institute in Paris. Next day the newspapers reported that he had decided not to go to Paris but would take his chances with the madstone![10]

This experience of Kansas doctors in gradually accepting the full implications of the germ theory was repeated all over the nation. Younger doctors, in general, were more willing, even

eager, to accept the new findings than their elders. Students in medical schools of the 1880's usually found themselves taking the side of younger teachers, many of them just returned from study in Europe, against older men with greater prestige. The confusion was understandable. Before 1884 there was no book in the English language that treated the subject of bacteriology comprehensively; there was no standard apparatus available before 1882 and none made in America until about 1890. Small wonder that "few men were correctly informed as to what had been achieved in Europe, very few able to appraise the value of the achievements, and scarcely any able or ready to pursue research in the new field." In the Kansas area, the first instruction in bacteriology was given by an ophthalmologist, Flavel B. Tiffany of Kansas City, Missouri, who conducted brief postgraduate courses in 1889 and 1890 at the University Medical College in that city. An excited account in the *Kansas Medical Index* told of his receiving "a *complete outfit* for the thorough study of microscopy and bacteriology" direct from Germany, including "germs of all contagious diseases" and "one of the best microscopes ever imported to America.[11]

In surgery, as mentioned earlier, Kansas practice was much more quickly influenced by the work of European pioneers. A Kansas City journal spoke for hundreds of Kansas doctors when it held that, despite the lack of proof of the germ theory, Lister's success made it undeniable "that the best results in the treatment of wounds may be obtained by strict cleanness and the exclusion of atmospheric air when laden with poisonous and noxious gasses." Several Kansas surgeons later recalled using Lister's carbolic spray in the 1870's. Dr. N. J. Taylor of Topeka remembered an operation of the late 1870's made sterile by "an atomizer fiilled with disinfectant." It was his job, Taylor recalled, "to stand at the foot of the table and send a spray from the atomizer over the table and the hands of the doctors when they commenced to operate." In 1879, a pioneer Kansas eye surgeon,

Blencoe E. Fryer, reported that he had been using a variation of Listerism for some time past, though he had had to dispense with the spray as impracticable in eye operations.[12]

Perhaps the best method of imparting some of the flavor of surgical thinking about this time would be to reproduce the actual words of a number of Kansas surgeons discussing a surgical case. The following is a verbatim account of remarks made by several surgeons at a discussion of a case of pleurisy in 1880, as recorded by the secretary of the South Kansas Medical Society:[13]

Dr. Furley [C. C. Furley of Wichita] favored the antiseptic treatment; said when a free opening is made atmospheric germs may find their way in the cavity, more especially if the lung tissue was punctured.

Dr. Floyd [T. S. Floyd of Sedgwick] did not like the aspirator, but favored free incision and the antiseptic treatment to destroy the bacteria. He thought Lister's plan should be followed as near as practicable.

Dr. Allen [E. B. Allen of Wichita] said that physicians lost time by depending on the antiseptic; he had never had atmospheric germs produced in abscesses.

Dr. Buck [L. A. Buck of Peabody] generally used carbolized water applied to his instruments before using; also to his sponges, hands and patient's garments as would seem to be indicated.

Dr. Floyd remarked that cleanliness was more essential than antiseptics, and that all air which conveyed light contained germs; without germs there would be no light. Said the pus of an abscess was laudable, and putrefaction could not be established until it had been exposed to air and light.

Dr. Floyd's statement that "cleanliness was more essential than antiseptics" bore the stamp of prophecy. Gradually it dawned on the surgeons of the 1880's that it was clothes, instruments, sheets, and their own hands, rather than the air of the operating room, which brought the disease-bearing germs to the patient. Sprays and harsh germicides were abandoned for

soap and rigid cleanliness. A room in which an operation was to be performed, warned John B. McClintock of Topeka in 1889, must have its ceiling, walls, and floors scrubbed, carpets and furniture removed, the operating table scrubbed and disinfected, and instruments covered with a hot solution of carbolic acid. A zealous cleanliness was now seen to be the key to success in all surgical operations. Even country doctors were urged to carry soap, nail brushes, and a razor, to wear clean shirts or gowns with their sleeves rolled, and scrub and boil their instruments for twenty minutes or more. This in 1890 when some prominent doctors still clung to ideas of laudable pus and bloodletting![14]

Soon after came the general transition from antisepsis to asepsis in the handling of most surgical procedures. It was still widely held in the early 1890's that complete cleanliness, while sufficient to prevent infection, was not obtainable. Until perfect asepsis could be achieved, urged one Kansas medical journal, it was better "to cling to the cleansing obtained by the use of antiseptics." A debate was staged on the question of asepsis versus antisepsis at the Lyon County Medical Society in 1891. Defenders of antisepsis concluded that "chemical substances alone have made asepsis possible," and that soap and water were not true antiseptics. Their opponents charged that antiseptics had been given too much credit for making surgery safer; that it was not chemicals like carbolic acid but the changes in treatment wrought by the germ theory, specifically cleanliness, avoidance of unnecessary exposure, and the abandonment of bleeding that were responsible for the gains made. Though the champions of asepsis lost the battle (and were forced to buy the victors an oyster dinner), they were to win the war. As early as 1893 the *Kansas Medical Journal* was reporting that the majority of surgeons were doing away with strong antiseptics and relying on cleanliness. Two years later, the same journal spoke of the decline and fall of antiseptic surgery. In the late 1890's came the

final refinements in modern aseptic technique, including the use of rubber gloves.[15]

By the turn of the century, surgeons could look back on a revolution in their art within a scant quarter-century. From laudable pus, frock coats, and filthy aprons they had graduated to cleanliness, surgical gowns, and rubber gloves. Surgical mortality rates were declining dramatically and popular fear of surgeons and hospitals was fading with the decline. That whole burst of new energy in surgery and the medical specialties, in public health and hospital construction, in medical education and scientific journalism at the close of the 19th century was closely related to the basic change in attitude toward disease. Old theories were crumbling, feelings of helplessness were giving way to hope, public confidence in medicine was rising. Charles Gardiner of Emporia grew rhapsodical as he described the dramatic impact of asepsis and the germ theory on the practice of medicine:[16]

Asepsis is the child of antisepsis, formed in her womb, nurtured in her bosom. She is the hygeia men looked for and dreamed of in the past made manifest in this favored age. She is the redeemer of the body as Christ is to the soul. Her teachings will re-create mankind and banish diseases from earth—under her benign sway cancer, that hollow eyed, wan cheeked, citron tainted demon, fit emblem of hell's malignancy will afflict humanity no more. Phthisis [tuberculosis] will cease to light the twin lamps of death in the cheeks of blossoming womanhood and that Herod, diphtheria, will be shorn of power to slaughter the innocents. Mothers will no longer look through blinding tears on the faces of their dead babes, nor fathers mourn beside the graves of their sons. Humanity will not bow down under infirmity but will live out the full measure of their days and at last in the fulness of time lie down on painless couches.

Gardiner's predictions, alas, were utopian but his enthusiasm and optimism tell us much of the spirit of his age. The vast advances in scientific knowledge of the cause, transmission,

and cure of human ills led many physicians like Gardiner to believe that their calling was becoming more science than art. And it was only human to believe that in the conquest of so many epidemic diseases, cancer and other age-old terrors would likewise succumb to the microbe-hunters. The belief was widespread in the 1890's that cancer, too, was caused by a germ, and one Kansas doctor claimed to have seen the *coccidium carcinoma* under his microscope. A professional journal in Kansas City predicted that men living in the 1890's would live to see cancer among the curable diseases. Another zealous Kansas physician went so far as to advocate barring cancer victims from marrying so as to "curtail the germs" of this terrible affliction. Similar optimism prevailed with respect to the other ailments of mankind.[17]

The rapidly accumulating knowledge upon which the optimism of Dr. Gardiner and the believers in the cancer germ rested demanded a spurt in medical specialization. No longer was it possible or even wise for every physician to attempt to master the details of new research in bacteriology, pathology, pharmacology, and a dozen clinical specialties. In part, of course, medical specialization in Kansas was the natural result of the multiplication of doctors in a state which was increasingly populous and urbanized. But the greater part of the stimulus to specialize came from the doctor's own realization that opportunity now lay in exploiting and (hopefully) advancing a solitary field of labor.

To the Civil War and after, specialization had been held back by the humoral pathology which taught that the fluids rather than the solid parts of the body were the seat of most diseases. Also, an unfortunate tradition that had made the word "specialist" almost synonymous with quackery must be overcome. For until well after the Civil War the country was full of "eye doctors," "foot doctors," and other quack "specialists" with

no special training at all. With the teaching of a localized pathology in the medical schools, however, and the advent of the germ theory, specialization in diseases affecting particular parts of the body became more reasonable.[18]

One of the oldest of the medical specialties, aside from surgery, was ophthalmology. In the wake of the creative genius of Helmholtz and Graefe in Germany ophthalmology held the limelight of interest in the medical world of the 1850's. Elkanah Williams of Cincinnati, the first American specialist of note, brought the ophthalmoscope to the United States in 1855, but it was rarely used in this country until the 1870's. Indeed, it was 1879 before Blencoe E. Fryer, pioneer Kansas eye surgeon, illustrated its uses to the Kansas Medical Society. Papers on the growing science of ophthalmology became more frequent in Kansas in the early 1880's under such titles as "Optical Perplexities" and "Glaucoma and its Treatment." Best-known among the eye specialists of the Kansas area at this time were Fryer, an English-born army surgeon at Fort Leavenworth, who had studied under the great Herman Knapp in New York, and Flavel B. Tiffany, mentioned earlier as the father of bacteriology in Kansas City. Both taught in Kansas City medical schools, and their students were numbered among the first oculists in dozens of Kansas communities. In Wichita, for example, one of Tiffany's students, J. G. Dorsey, was one of the early practitioners of scientific ophthalmology. Both Fryer and Tiffany were charter members of perhaps the first specialty society in greater Kansas City, the Kansas City Ophthalmological Society, organized in 1889.[19]

Many of these early oculists had been general practitioners who resolved to specialize late in life. This was very common in the rush to specialization of the 1880's and 1890's. Some found it difficult to decide in what area they wished to specialize and combined several specialties, not always complementary, as the Dickinson County doctor who specialized in the diseases of

women and children "and the curing of drunks." More common, happily, were such combinations as eye, ear, nose, and throat, which probably claimed the attention of more pioneer specialists than any specialty but surgery. A man who confined himself to nose and throat work alone was very rare. When C. H. Guibor settled in Topeka in 1889, for example, the *Kansas Medical Journal* said of his interest in laryngology and rhinology that "we believe he is the only specialist in the State on that specialty alone." Interest in nose and throat specialization must have mounted in the 1890's, however, for we find the ear, nose, and throat men of Greater Kansas City preparing to found an organization of their own in 1896.[20]

By its delicate nature, surgery of the eye, throat, and interior cavities of the body required more skill, training, and patience than the general surgery performed by the early doctors of Kansas. Beginning in the 1880's a whole host of surgical branch specialties began to break off the main trunk of surgery. A vital change in the role of surgery in disease was in fact taking place. It was no longer the last refuge in hopeless cases, but the first choice in treatment of dozens of serious ailments. By 1880 the two earlier obstacles to surgical progress—pain and secondary infection—had been overcome by antisepsis and anesthesia, the latter now becoming a specialty in its own right. With disease now thought of as an invasion of the local regions of the body, surgeons were encouraged to push into the abdomen, the thorax, and the skull. From J. A. Lane of Leavenworth came the opinion in 1886 that brain and chest operations were "comparatively harmless." He advised surgeons to abandon their cautious policies of "watchful waiting." Three years later, D. F. Rogers of Topeka was telling the Pottawatomie County Medical Society that the abdomen could safely be opened for a diseased kidney, impacted gall bladder, or ailing liver. A colleague of Rogers', J. C. McClintock of Christ's Hospital in Topeka, reported twenty-nine successful abdominal operations in 1892.

Another famous Topeka surgeon, Milo B. Ward, was urging prompt operation for appendicitis by 1893 and complaining that he found it "inexplicable that there is such a dread of surgical interference" in this disease. Ward was the moving spirit in the formation of an important regional society of specialists, the Western Surgical Association, in 1891.[21]

Thoracic and abdominal surgery were only the first of the surgical specialties. From the abdomen surgeons began to move into the pelvic cavity, and gynecology emerged as a specialty. From the beginning gynecology was closely tied to general surgery and obstetrics. General surgeons as well as gynecologists were performing hysterectomy and other operations on the female organs by the middle of the 1890's. Once again, Kansas was the site of a regional organization in this specialty when in 1892 the indomitable Milo Ward organized gynecologists and obstetricians from six states (Kansas, Missouri, Iowa, Nebraska, Colorado, and New Mexico Territory) into a Western Association of Obstetricians and Gynecologists.[22]

Other pioneer surgical work in the Kansas area dealt with poliomyelitis, first studied in 1887, heart surgery, and skin grafts. The skin grafts were reported by Flavel Tiffany, the oculist and early student of bacteriology, who performed several plastic operations in 1895 for malignancy of the orbit. Many of Tiffany's colleagues were disposed to make light of this pioneer effort, saying that placing skin grafts in a mass of diseased tissue was like throwing a sound apple into a barrel of rotten ones. But Tiffany's success proved that it was more "like grafting a healthy bud into a nearly sour apple tree and getting most excellent fruit." In heart surgery, the first significant paper by a Kansan came from the pen of David W. Basham of Wichita. His bold paper, read before the surgical section of the American Medical Association in 1902, called for incision of cardiac abscesses, removal of tumors on the surface of the heart, suturing

of heart wounds, and exploratory incisions of the pericardial cavity where necessary. [23]

Great as was the progress in surgery and the other specialties, not all doctors applauded the spread of specialization. As early as 1880, some general practitioners saw the handwriting on the wall and raised their voices in opposition. "Where will it all end?" queried the editor of the medical journal at Fort Scott. Already, he charged with considerable exaggeration, "every cross-road village has its ophthalmologist, aurist or gynecologist, not mentioning the gentlemen who in a minor way make the rectum, urethra, throat, nose, pharynx, etc., their particular field of onslaught." Surrounded by a closing circle of specialists, the general doctor would soon be reduced, in the editor's words, to treating the umbilicus. This challenge brought several replies, one from R. J. Peare, an ophthalmologist, who assailed the idea that a general practitioner could possibly know everything necessary to treat glaucoma, amputate a foot, and administer an anesthetic. "The more a man spreads himself," he warned, "the thinner he gets."[24]

The issue was joined. For the next two decades and more, doctors, journals, and medical societies argued the "growing evil" of specialization. With the appearance of new specialties in the 1890's—gynecology, pediatrics (still joined to obstetrics in Kansas), anesthesiology—and the subdivision of surgery, more and more warnings of overspecialization were heard. By 1894, Peare himself was lamenting the decline of the general practice of surgery. "Where, now, is to be found the general country or village practitioner who has done half a score of operations of any surgical importance?" he asked. This was especially unfortunate in those emergency cases where the doctor must operate or see his patient die. Surgery was fast becoming a lost art to the general practitioner and his pride was understandably hurt. Envy of the surgeon was felt, too, by the country practitioner who plodded several miles through rain and mud for a

two-dollar fee, only to see the city specialist perform the needed operation in comfortable surroundings for a hundred dollars or more. Some tried to fight the trend, a few with success, but the way was hard. Antisepsis in a farm home was difficult to achieve, much experience was necessary to acquire the needed dexterity, and patients themselves were now demanding hospital and specialist treatment.[25]

Last and most spectacular of the specialties to appear before 1900 was radiology. When Wilhelm Roentgen announced his discovery of a "new kind of ray" in January, 1896, the press was filled with the most fanciful speculations on the uses of this new instrument. The public got the idea that the air would soon be full of them and each man would be able to stock a few rays for his own private use. A New Jersey assemblyman distinguished himself by introducing a bill to prohibit X-rays in theater opera glasses. An English firm, anxious for the morals of a nation, brought forth a line of women's underwear which was impervious to the new rays.[26]

Medical uses of the X-rays were not immediately foreseen, though doctors were interested from the first. Three months after Roentgen's announcement, for example, we read of a lecture and demonstration of X-rays before the doctors of the Eastern Kansas Medical Society by Professor Lucien Blake of the University of Kansas Department of Physics. Blake, according to this account, was able to make a shadowgraph of the bones of the foot through ordinary footwear, as well as the bones of the hand through a piece of board. Apparently the first medical use of the X-ray in Kansas came at the end of the year when Professor Blake used his apparatus to X-ray the badly infected foot of a Hiawatha girl. By 1897 several Kansas doctors had bought or constructed their own apparatus for taking X-ray pictures and scattered reports of the ray's use in diagnosing abdominal, stomach, and chest disorders were beginning to appear. From then on, the range of usefulness of the X-ray steadily

widened. A discussion at the state medical society meeting of 1904 showed it being used by Kansas doctors for diagnosing fractures, locating foreign bodies, and treating skin afflictions and reducing tumors.[27]

Several martyrs paid the price of progress in radiology. The dangers of radiation were at first not understood and the pioneer radiologists frequently subjected themselves and their patients to long exposure to the damaging rays. One early patient reported she had spent an hour and a half at one sitting beneath Professor Blake's fluoroscope. A number of doctors suffered severe burns which shortened their lives. A president of the Sedgwick County Medical Society, Dr. H. Michener, lost his right hand to X-ray burns; another Wichita doctor, George H. Siegel, lost his left arm and died prematurely; a Kansas City, Kansas, pioneer died of cancer arising from severe burns. And there were many more. One well-known Kansan, not a doctor, who suffered from X-ray exposure was Ed C. Jerman of Topeka, famous across the nation as a pioneer in X-ray education and building X-ray machines. His courses in the proper handling and operation of X-ray equipment were attended by thousands of technicians and professional men from all over the world, but were too late to help him. An author and founder of the American Society of X-ray Technicians, he also achieved distinction for his radiographic studies of the causes of death of the Egyptian mummies in the Field Museum of Natural History in Chicago.[28]

The rise of modern specialization in medicine had a curious effect upon public attitudes toward the doctor. Whereas one might venture to guess that the scientific doctor, equipped with X-rays and specializing in one small segment of medicine, would inspire greater confidence in his patients, this was not wholly true. Indeed, if we are to believe the complaints of medical spokesmen in the decade of the 1890's, the actual prestige of

medicine declined. A typical complaint, in this case from the president of the Kansas City Academy of Medicine, reads: "We are obliged to admit that the standing of our profession with the community is not what it should, or even what it might be."[29]

Why should this be so? For one thing, the tempo of change had been so swift that the public image of the doctor had become blurred. Traditionally more artisan than scientist, he had been a counselor, a friend skilled in tending the sick, a dispenser of drugs, a shrewd, practical diagnostician. Now he had forsaken his frock coat for a laboratory coat, spent more and more time in office and hospital, rarely dispensed drugs, and relied heavily on instruments and laboratories for his diagnoses. He was more impersonal and more scientific but, aside from surgery, did he save any more lives? Many could not understand the young doctor who had thrown out the old drugcase as being only "subjective therapeutics" and was content only to diagnose and wait. For the fact was that despite the vast gains in knowledge of the cause and transmission of disease, little more was known than formerly of how to cure disease. Indeed, what little was known of therapeutics suggested that most older remedies were useless or downright harmful. This "therapeutical nihilism," as the older doctors called it, did little to inspire public confidence in medicine and many mourned the passing of the old country doctor.

This Achilles heel in the armor of the new physician was regularly exploited by the army of quacks, irregular doctors, and medicine vendors which regularly invaded every town and village of size in Kansas. In the early years they had exploited popular fears of calomel, bleeding, and blistering; now they challenged the public to compare their "cures," no matter how ludicrous, with the achievements of the scientific doctor. In the glare of newspaper publicity, testimonials by prominent citizens, perhaps an entertaining medicine show, some sufferers

were inevitably deceived. A scanning of almost any newspaper of the 1870's and 1880's will inform the reader of magnopathic physicians with marvelous cures, magnetic healers who cure by electricity, visiting professors bringing the phenomenal "electric oil," or vita-pathic doctors who have divined the secrets of nature. Marvelous, too, were the cures effected by "Dr. Jaque's German Worm Cakes," which destroyed worms and made the children happy, Eilert's Daylight Liver Pills, the perfect tonic for despondent livers, and Dr. Pierce's Golden Medical Discovery, which, according to the testimonal, had cured one Vitus Killian of her heart disease. Doctors galore swarmed to Kansas in the 'seventies and 'eighties—botanic, magnetic, eclectic, homeopathic, hydropathic, physio-electric—and raised their voices in protest against any attempt to regulate medical practice.[30]

Most respectable of all the irregular doctors were the homeopaths and eclectics, who differed from the regular doctors only in therapeutics. In their medical colleges, the best of which were on a par with the regular schools, they studied the same texts and heard much the same lectures as the regulars in anatomy, physiology, chemistry, pathology, and the clinical subjects. In therapeutics, however, they agreed that "old-school" insistence on bleeding and particularly on large doses of harsh drugs was mistaken. Basic to the peculiar pharmacology of the homeopathic doctors was the belief that dilution increased the power of drugs. They believed, too, that particular diseases could be cured only by those drugs which would produce in healthy persons the same symptoms as the disease. Like cures like, as they were wont to say, or in the more favored Latin *similia similibus curantur.* The broader-minded eclectic physicians, on the other hand, as their name suggests, claimed to borrow the best from both worlds. In practice, however, they relied heavily on botanical remedies. Of the two cults, the eclectics were by far the stronger, the experience of Kansas differing in this respect from Illinois and other Midwestern states. Reliable figures for 1883 show 515

eclectic doctors in Kansas compared with 104 homeopathic and 729 regular physicians. There were more eclectic doctors in Kansas than all New England, and one eclectic boasted that there was "no State in the Union in which eclecticism is more flourishing, or numerically stronger, than it is in Kansas." This could well have been true.[31]

Enmity between the regular doctors and these two irregular sects waxed and waned for a half-century in Kansas. Both homeopaths and eclectics had come with the early settlers, had flourished, organized, and steadfastly opposed any grants of special privilege to the more numerous regulars, or "allopaths," as they were sometimes called. They would agree to public regulation of medicine and a state board of health only if they were granted equal status with the allopaths. They clamored for representation at state hospitals and other institutions. They harangued newspaper editors for equal publicity with the regulars. They supported their own candidates for public office in order to protect their interests. And they were often successful.

Frequently the regular doctors themselves won converts to homeopathy by their heroic dosage and continued bloodletting. In the absence of any proof that these severe measures actually aided him, the patient was likely to be drawn to the infinitesimal doses of the homeopath or the pleasant herbs of the eclectic. People had "got enough of calomel and quinine," cried the president of the Kansas Homeopathic Medical Society in 1885, "and have learned to appreciate the little pill." No way of measuring the action of these competing drugs was available and, if there had been, who knows that the irregulars did not have the better score? Certainly the competition of the homeopaths and eclectics kept a healthy check on the size and frequency of the Old School doctor's dosing.[32]

But the Old School doctor would have nothing to do professionally with the irregulars. He was certain that their concept of disease and their pharmacology were nonsense, whatever the

effect of their drugs. Consultation with irregulars was rigidly barred by the Kansas Medical Society and virtually every local society. But no local society was free of concern over the continued growth of the irregular sects well into the 1880's. They were roundly condemned in virtually every meeting of this period, frequently with bitterness, as, for example, in President E. B. Allen's barbed remark to the South Kansas Medical Society: "They only deserve a passing notice—just as a man would stop in the street to kick a cur from his heels that was not hurting him any, and only annoying him a little."[33]

Not until the medical revolution of the 1880's, however, did the regular doctor have proof that the monistic theory of cures accepted by the homeopaths and their allies was a relic of a prescientific age. The coming of a localized pathology and the germ theory of disease finally made anomalous a therapeutic system based on symptoms. Many irregulars grasped this as quickly as the regular doctor and made haste to abandon their former beliefs. A *rapprochement* on the grounds of a rational pathology and therapeutics was now possible, and concessions were made from both sides. One diehard professor resigned from the homeopathic medical college in Kansas City because colleagues were ridiculing small doses and telling their students that "infinitesimals are nothing but bottle washings." A regular journal, on the other hand, now admitted that medicine owed something to homeopathy, particularly simplicity in drugs, which "we were centuries in recognizing."[34]

It was the conservative homeopaths that kept the faith who benefited from the therapeutic nihilism of scientific medicine in the 1890's. As late as 1896, one outstanding homeopath, C. F. Menninger of Topeka, wrote that "Homeopathy is making steady progress. The Conquest is on. If we will but adhere with all energy and steadfastness to Homeopathy, victory will be ours." But Menninger, too, was shortly to abandon homeopathy and begin a second distinguished career as a regular physician.

Dr. Menninger's first partner and long-time friend, Henry W. Roby, probably the best-known homeopath in Kansas, also drifted eventually into regular medicine. Though a confirmed homeopath, he was one of the few doctors of that persuasion ever to be invited to address a regular medical society. Known widely as an author, member of the state board of health, and secretary of the first board of medical registration, he also helped to invent and build the first Remington typewriter.[35]

Hostility among the three schools of doctors figured largely in the failure of Kansas to achieve a real medical practice law in the 1880's and 1890's. Like sovereign states which refused to recognize each other's governments, these schools of medicine, particularly the regular, insisted that to co-operate with the others in controlling practice would be to grant recognition to schools based on falsehood and deceit. Yet no legislature would dare pass a law without the agreement of each of these powerful groups. So there followed two decades of storm and stress, advocacy and opposition, inflexibility and (sometimes) compromise.

And still the flood of unqualified practitioners poured into Kansas. The legislature of 1879 was responsible for an abortive attempt to dam the flow by requiring doctors to have certificates from boards of examiners to be established by the homeopathic, eclectic, and regular state societies. These certificates were to be issued to all graduates of "recognized" medical schools, to all doctors in practice five years, and to all those who should pass examinations set by the respective boards. It was a weak law. The examinations were to be "of an elementary and practical character." A physician was loosely defined as anyone "who shall profess publicly to be a physician, and engage in the practice of medicine, or who shall habitually prescribe for the sick, or who shall append to his name the letters 'M.D.'" Yet the law was better than none in the view of most regular physicians, who had worked for a stronger measure and a single examining board.[36]

But their opinion soon changed. The eclectics immediately contested the law, despite their right to a separate board, and even challenged the legality of the territorial charter held by the Kansas Medical Society. They offered to license all candidates from whatever "school." Newspapers charged the regular doctors with trying to create a monopoly by their campaign for a single examining board. One influential paper called the law "class legislation," which prevented people from choosing the physicians they wanted, and threatened doctors with imprisonment "for doing what they have for years done, and what those who employ them desire them to do." Furthermore, the law proved unenforceable, and "doctor cases" clogged the courts for a year or more.[37]

The Kansas Supreme Court's decision of February 4, 1881, declaring the law unconstitutional, was greeted with relief by most regular physicians. A committee of the East Kansas Medical Society had reported a month earlier that the law was a failure and only made quackery respectable. In the Court's decision was a ruling that the Kansas Medical Society, though not incorporated under the laws of the state, was a legal body. But the Court felt that the law as a whole gave legislative power to three private corporations.[38]

Out of this unsuccessful attempt at regulation came the first fragmentary figures, computed by the three examining boards, on the number of doctors practicing in Kansas. According to the report of the board appointed by the Kansas Medical Society, certificates were issued to 663 graduates in medicine during the first year of the board's operation. Most of the graduates were from Middle Western schools, the largest number claiming Rush Medical College in Chicago as their alma mater. Of non-graduates, only 148 passed, less than half of those taking the examinations. No certificates were issued under the five-year provision. The homeopathic and eclectic boards issued over 600 certificates and refused only 35. These figures agree quite well

with those of F. F. Dickman of Fort Scott, who published the state's first medical directory in 1881. His figures show 1,269 doctors of all types practicing in Kansas, about two-thirds of them graduates from some medical institution. As we might expect, the proportion of graduates was much higher in the settled eastern areas, very low in some western counties.[39]

The failure of the law of 1879 set in motion a new round of pressure and opposition, persuasion and resistance. Rivalry between the Kansas Medical Society and its competitors, now sharpened by accusations of betrayal, entered into a bitter phase. Spokesmen for the regular organization still wanted a single medical board, dominated by regulars, to pass on the qualifications of all candidates for licenses. Eclectics and homeopaths, lukewarm about any legislation, insisted that separate boards like those of 1879 be provided in any new law. "Is there an eclectic in Kansas," demanded Noah Simmons of Lawrence, president of the state eclectic organization, "who is so anxious to nestle under the aegis of allopathy that he would sacrifice all his manhood by endorsing a system of practice that has shed more blood and destroyed more lives than Caesar, Hannibal and Napoleon combined?"[40]

From the ruins of the 1879 campaign the regular profession derived several important lessons. First of all, no drive for regulating practice would be successful without positive support from the state's six hundred or more eclectics and homeopaths. Distasteful as the idea was, the regular physicians must co-operate with their bitter foes if they wanted a workable law. Just as important was the support from the great masses of people, most of whom were indifferent or opposed to any restriction of their right to visit any doctor they pleased. Finally, they badly needed effective political support in the state legislature.

Gradually, a new strategy formed. In Illinois, regulation of medical practice had recently been made a function of the state board of health with spectacular success. Why should Kansas

not follow the example of Illinois? Perhaps popular and legislative support could be rallied behind a board of health, if not behind a medical practice law. Even the irregulars might give support to such an idea. And certainly the state needed a board of health. For a decade or more, doctors had urged the necessity of uniform sanitary and health laws, state-wide quarantine regulations, and concerted effort to control disease. So, in 1881, a committee was appointed by the Kansas Medical Society to work for a state board of health with power to license medical practitioners.[41]

From the eclectic physicians came the first rebuke the following year: a resolution against all medical legislation, especially that originated by "partisans." Further, if Kansas were ever to have a board of health, they demanded equal recognition in its membership. Other discouragements followed in the next few years. The homeopaths were apathetic. The public showed no interest. The legislature refused to consider any law which lacked the backing of all doctors. Still, the idea of a board of health stirred a faint echo in some Kansas newspapers, a few politicians were interested, and the *Kansas Medical Index* at Fort Scott kept up a heavy drumfire of editorials, articles, and letters aimed at the doctors and politicians of the state.[42]

Then Providence took a hand. Governor John A. Martin received a letter in the winter of 1884-85 from the National Board of Health in Washington, warning of an expected invasion of Asiatic cholera, and urging every state to take steps to combat the danger. A bill to create a state board of health had already been drawn up by the Kansas Medical Society. At the Society's urging, Governor Martin now appealed to the legislature in January to give special attention to the creation of a board of health. A petition was circulated to every member of the legislature by the Society. Dr. C. H. Guibor, president of the Society, called a special meeting of the entire organization to coincide with the January session of the legislature. Doctor-members of

the legislature were invited to a special evening session. Every means of pressure available was used on behalf of their bill, which included the regulation of medical practice.[43]

A special meeting was held with representatives from the eclectic and homeopathic societies to consider the Society's bill and solicit their support. Immediate opposition appeared to the proposal that membership on the Board of Health be irrespective of schools of medicine. The eclectics and homeopaths insisted upon equal representation on the Board. The regulars refused to concede. With no agreement reached, the meeting broke up in rancor.[34]

The press now took up the doctors' battle. Most newspapers opposed all regulation of medicine, but were strongest in their denunciation of the Kansas Medical Society's stand. "No board of health should have the right to interfere with the practice of medicine in any way," read an editorial in the *Topeka Daily Journal*. According to the *Topeka Daily Commonwealth,* long opposed to the regulars' fight for control of licensing, it was "the good-for-naughts in the profession who are pressing these measures." Many papers saw the doctors' fight as purely for selfish gain, an attempt to bar competitors from medical practice by the force of law. Nor was the opposition confined to newspapers. One Grange lodge charged that the bill was designed solely "to create a monopoly in the practice of medicine that would be adverse to the best interests of this state." The people of Kansas were intelligent enough, the Grangers concluded, "to protect themselves from quacks, whether they have a diploma or not." Kansas individualism was proving a stony barrier to medical regulation![45]

Opposition centered on the medical practice sections of the law. No one seemed too much disturbed about the creation of a board of health, so long as it did not enter the No Man's Land of medical regulation. Gradually, under great pressure, the Kansas Medical Society and its supporters in the legislature drew

back. The bill approved by the legislature on March 7, 1885, was stripped of all references to medical practice.

By the time of the creation of the State Board of Health, Kansas was the plague spot of the nation in its indiscriminate licensing of doctors. Kansas had one doctor for every 332 persons, according to one reliable source, compared with one to 548 persons in Chicago, usually regarded by eastern critics as the home roost of all quacks and irregulars. Under the provisions of the bill creating the Board of Health, all practitioners were required to register their names with the Board for statistical purposes. Even this requirement was resisted by some irregular doctors. By 1887 some 2,400 practitioners had registered, including 1,500 regulars, slightly under 600 eclectics and homeopaths, 135 midwives, and 201 "others."[46]

In his report for the year 1885, John W. Redden, first secretary of the Kansas State Board of Health, reported a remarkable discovery. He had found the forgotten but unrepealed Medical Practice Act of 1870 on the statute books and had got a favorable opinion of its validity from the Attorney-General. Here was an instrument which, if rigidly enforced, might yet reduce the number of unqualified men practicing in Kansas. This law, which required doctors in practice less than ten years to have a certificate from a medical school or medical society, was published in pamphlet form and widely distributed to the medical practitioners of the state. It was contested, of course, wherever Redden sought to enforce it, and numerous cases were taken to the courts. But in 1890 the Kansas Supreme Court upheld the law and the way was cleared for the Board to undertake a vigorous campaign to drive out the more flagrant quacks. That Redden and his successors had a herculean task before them is attested to by this excerpt from a letter from a Kansas practitioner, asking Redden's aid in a malpractice suit against him:[47]

Under existing Sircumstances I write to your honorable Board asting you for A letter in writing to Stand By me. if I have those

that is Practising in medison and Surgery, and midwifery, in this visinity, the largest majority that is A Practising heare has not even got a Surtificat, from eny board of the state the most of them clames to be Gratuats, but got thair Diplomis lost or burnt, by fire, in thair Palmy Days. of in some of the Eastern States the know what the law is but know one attempts to inforce it. I have tried to get Some one of the Fraternity to help me Start the ball A roling but when it coms to the Point of ection the back out, and that is the last of it.

Whether the author of this letter was protected by the ten-year clause is not known, but many of his colleagues of similar literary and (presumably) scientific attainments felt the ax in the next few years. From a high of 2,900 practitioners registered with the Board in 1889, the figure dropped to about 2,000 in 1893 and remained there throughout the 1890's. The man primarily responsible for this war against the quacks, after Redden's resignation, was the Populist Henry A. Dykes. A man of unbounded energy, patience, and ability to face opposition, he won the plaudits of most Kansas doctors, including the shrinking band of homeopaths and eclectics, for his tireless campaign. By the turn of the century, scientific medicine, moreover, was making a mockery of some of the quacks' more ludicrous antics. Only the ten-year clause, denounced by Dykes and every medical association, sheltered some of the pretenders from the law. One Kansas journal mixed humor with sarcasm in describing this ten-year exemption: "Does not this admit the Faith-curist; the druggist who prescribes 'over the counter'; the itinerant fakir with his 'magic' ointments and 'electric' oils; the traveling mountebank in the side tent of the country circus, who excavates cerumen from the ears of his dupes; the medicine man of the Kickapoo tribe, let his name be Rain-in-the-face, or Paint-on-the-nose or Vacuum-in-the-skull, or what you will, provided that he can secure affidavits from the braves to the effect that he has been rattling his bear-claws and beating his tom-tom for a decade?"[48]

Though Dykes and his supporters waged a hard campaign, they did not win the war against quackery. Stymied by the ten-year clause, public apathy, and considerable newspaper opposition, they were content to suppress the flagrant violator and encourage others either to migrate or to continue their education. Newspapers were understandably loath to lose the extensive advertising of the quack and the medicine-vendor, and some of them were genuinely concerned over what they considered to be an invasion of personal liberty. If medicine were truly a science, some argued, why did it need the support of law to prop it up? In a republic of liberty, why should reason, persuasion, and free choice not be relied upon? There were further reasons. The resurrected law of 1870 was cumbersome in its legal machinery. To move against an unlicensed practitioner, the prosecuting attorney required a sworn complaint. No one but a regular physician, normally, would be likely to do this and he was usually most reluctant to do so, particularly if local opinion was favorable to the accused. Certainly, the secretary of the State Board of Health could not be expected to spend his time pursuing litigation in a hundred counties at once.

Furthermore, the board secretaries had much else to do. Pursuing quacks was an incidental (and extra) part of the many duties prescribed by law for the State Board of Health. Under the law of 1885, the Board was to make and enforce rules for public health, keep all vital statistics records, concern itself with sanitation and contagious diseases, and work with local health officers, all on a budget of from two to five thousand dollars annually.[49]

And the Board had problems of its own. Politicians, editors, quacks, and disgruntled doctors all regarded the Board as fair game for attack and criticism in the decade after its founding. Bills were introduced in the legislature in 1887, and every two years thereafter, to abolish it. Attempts to enforce quarantine were met by such editorial rebukes as "if the legislature don't

set down on some of those fool boards, we hope the people of Kansas will set down on the legislature." Doctors objected to being required to report every birth, death, and communicable disease. A laconic report from the Senate Committee on Public Health in 1889 stated that the Board "is of no public utility." The Senate then voted to abolish it, but the House refused to concur. Small wonder that Dr. David Stormont, a regular member of the Board (on it were three doctors from each school of medicine), advised the Kansas Medical Society not to urge the legislature to strengthen the Board "because if they think we want it they will certainly not pass the bill."[50]

It is a marvel that the Board, with its one salaried employee, accomplished so much with so little in these early years. Within nine months of its creation, the Board had inaugurated studies of vital and mortuary statistics in Kansas; adopted rules and regulations governing sanitation, quarantine, and disinfection of sick rooms; and called local health boards into existence (a few were already organized) in all but six counties of the state. To make the task more difficult, the Board was informed by the Attorney-General that its powers were "almost exclusively advisory." At the close of the first year, the Secretary marshaled the pitiful possessions of the Board for public inspection and approval: 6 cuspidors, 1 washbowl and pitcher, 1 doormat, 1 shovel, 2 coal buckets, 1 soap dish, and 1 looking glass.[51]

With this scanty armament, the courageous Dr. Redden went forth to do battle with the Board's enemies. Nothing stirred up more opposition than Redden's powerful stand on behalf of vaccination and strict quarantine. Vaccination was still unpopular in the middle 1880's, and even a rumor of quarantine was a death blow to a town's business. Yet the Board, at Redden's prodding, passed strict quarantine rules and ordered that no child should be admitted to any public school in the state without evidence of successful vaccination. Such action was likely to provoke opposition even in time of epidemic, but Redden himself

admitted that there was not a case of smallpox in the state to his knowledge! Here was new evidence of the arrogance and pretension of doctors and their boards! "Shutting our children out of the public schools unless their blood has been poisoned by vaccination," read a letter published in the *Daily Commonwealth,* "suggests the inquiry, does the state board of health own our schools, likewise our children?" From the local health officers came more reports of protest and angry refusal, sometimes from doctors themselves. It was quickly apparent that compulsion would be necessary to enforce the ruling, but the Attorney-General had made his position clear. Dr. Redden argued for more power to enforce the Board's rulings before legislative committees the next year and periodically thereafter, but without success. A less resolute man would have become discouraged.[52]

Yet for all the early discouragements, a beginning had been made. Much more was now known of the prevailing diseases of Kansas, clean-up campaigns had been started in several cities, communities were being made aware of the importance of good sewerage and a pure water supply, and a skeletal cadre of health officers was on call in the event of an epidemic invasion. Further, a basis was being laid across the Atlantic during these years for a science of public health. Soon preventive medicine would be more than a name, and only the foolhardy would argue against vaccination and immunization.

It is remarkable how much was understood about sanitation and health measures even before the germ theory provided them with a rational foundation. The great "sanitary awakening" which spread across Europe and America beginning in the 1850's was based, not on a knowledge of bacteriology, but on intuitive and often statistical evidence that filth and disease were related. Where there was no visible filth, sewer gas and other effluvia were suspected as causative agents. John H. Rauch, the great Chicago and Illinois health officer, was pleading for more sew-

erage as early as 1873, solely on the empirical grounds of a measurable relationship between mortality rates from infectious disease and the amount of sewerage in an area. Dr. Redden of the Kansas board was one of three Americans to accompany Rauch to the great congress on hygiene in Paris in 1889.[53]

In Kansas, interest in sewerage and water supplies mounted throughout the 1880's. We read that the Board of Health approved Redden's request for a microscope in 1886 and that some microscopic and chemical analyses of samples of Kansas water were carried out in the next few years. A chemist was employed to analyze these samples for local health officers, who were given instructions on how to collect water samples. In Wichita, the mayor in the late 1880's was a druggist, J. P. Allen, whose efforts to enforce sanitation and install a decent sewerage system won his regime the sobriquet of "the sewer administration." By the closing decade of the century, a vigorous campaign was in force to persuade cities to improve their sewerage and water systems, and acquaint farm families with the dangers from poorly located or constructed wells. The State Board warned Topeka in 1896 that its water supply was not safe to use without boiling. A report from the Board that year made it clear that streams did not purify themselves, that typhoid fever was carried downstream by polluted water, and that protection of water supplies at reasonable cost was available through the sand-filtration method. Then came a further warning in 1898 from Samuel Williston, then Dean of the Medical Department at the University of Kansas, that a recent typhoid fever epidemic at Emporia had been confined to those houses where water from wells and cisterns was used. By this time the Board also had a civil engineer and advisers in sanitation (Williston), chemistry (E. H.S. Bailey, also of the University of Kansas), and bacteriology (Paul Fischer of Topeka). And there could no longer be any doubt of the importance of sewers to good health. Not only were there the previous studies of Rauch and others, but the

Kansas Board released some revealing figures of its own in 1900 on morbidity in and outside the sewer district of Topeka:[54]

Disease	Out of Sewer District	In Sewer District
Typhoid fever	15 (cases)	4
Malarial fever	14	2
Scarlet Fever	4	0
Diphtheria	15	2
Croup	6	2

Growing cities had other health problems than sewerage and water supplies. Poor housing, insufficient ventilation, close contact, the crowding of people in the poorer sections were also of concern to those responsible for the health of cities. Furthermore, it was in the cities that the factories, workshops, packing-houses, and mining areas centered. Working conditions in these mines were sometimes appalling: long hours, few rest periods, no safety precautions, the use of drinking water drawn from shallow cisterns, and exposure to deadly gases which attacked the lungs. Factory-workers in Kansas complained of similar conditions, though they escaped the danger to their lungs. Women and children, furthermore, were employed in factories, where they worked the normal ten-hour day. Boys began to enter the coal mines of the state in the later 1880's. In all, more than a thousand children, most of them under 15, were at work in the mines and factories of Kansas by 1889, receiving average wages of four dollars a week. No law regulated the employment of children until 1905, except in the coal mines, where children under 12 were excluded. The working conditions of these children were no less pitiable than those of laboring children anywhere, as the Kansas Commissioner of Labor confirmed after his first detailed inspection of Kansas factories in 1897:[55]

Could our legislators and the humanitarians of our state have accompanied the Commissioner as factory inspector in his investigations, and seen the small boys and girls from 10 to 14

years of age working in packing-houses, oftentimes on damp and wet floors, and under other unhealthful conditions, or small boys sitting on benches, their feet scarce touching the floor, attending wood-working machines in furniture factories, with fingers missing, their hands and arms maimed by cruel saws and machinery, working through long weary hours, with a hopeless look on their wan white faces, striving to earn a pittance . . . it is certain that a child labor law would be an assured fact in our state.

For the most part, health conditions in the factories, mines, and packing-houses of Kansas were the responsibility of the Bureau of Labor, though the State Board of Health sometimes joined in particular investigations. Health officials, however, were more likely to be concerned with diseased meat coming from the packing-houses than with the health of packing-house workers themselves. Periodically throughout the 1880's and 1890's there were "diseased meat" scandals in such cities as Lawrence and Topeka, and one Lawrence butcher was threatened with tar and feathers in 1884 if the charges against him were proved true. Insanitary meat, as well as adulteration of food and drink, was a leading health problem by the close of the century, but as yet no means for establishing standards existed, and there were no enforceable laws. One outraged Board of Health member, Dr. David Surber of Perry, urged Kansans to "arrest every man who ought to be arrested; stop all business of adulteration which ought to be stopped; publish in the daily papers every fact which ought to be published. Such a course would benefit every man, woman and child in the State, except those who wish to get rich by poisoning and defrauding their fellow-citizens." But such vigorous action would have to await the coming of Dr. Crumbine and a later chapter in Kansas' medical history.[56]

A final word must be said about the statistical work of the early Board of Health. Probably no other service proved more important in the long run than the inauguration of accurate records of the diseases and causes of death in Kansas. Incomplete though these early returns were, they afford us our only reliable

information on the mortality and sufferings of Kansans in the closing years of the century. We know, for example, that infant mortality fell slightly in the decade and a half after the Board's establishment but was still appallingly high. Deaths of children under five fell from nearly 50 per cent of all deaths in 1885 to 37 per cent in 1900. One of every six deaths in the latter year was an infant under one year of age. The major causes of death among Kansans as the new century dawned were virtually the same as a half-century earlier: pneumonia, tuberculosis, heart diseases, typhoid fever, and "cholera infantum." Cancer was becoming more prominent but ranked far below pneumonia, tuberculosis, and a number of the infectious diseases. Tuberculosis was the most feared disease among adults, being regarded, as one Board of Health report put it, as "inevitable, incurable, and unpreventable." Although such improbable causes of death as "old age," "teething," and "debility" were also given a place on the list of killers in 1900, the classification of diseases was becoming more scientific under the influence of newer concepts of etiology.[57]

Among the more contagious diseases, smallpox and typhoid fever were still prevalent, though declining, and diphtheria had become the most feared of childhood diseases. Wider vaccination, together with better sewerage and water supplies, accounted for the drop in the former, but little could be done for diphtheria sufferers. A Board of Health pamphlet on diphtheria, distributed in the late 1880's, called it a "filth disease" communicable by persons, clothing, or air, and preventable only by banishing filth and letting in air and sunshine. Epidemics of the disease raged periodically in Kansas in the late 1880's and 1890's, one of the most virulent striking Jackson County in late 1883. So malignant was the invasion, according to a local physician, that whole families were swept away, children sickened one day and died the next, and near-panic reigned before the attack subsided. Dr. C. F. Menninger recalled his feelings of helplessness and inade-

quacy when he thought of the sorrowful parents who begged, "Doctor, can't you do *anything* to save this child?" He would then "look at the helpless, suffering youngster and at the telltale cyanotic blue coloring of his body and I would know that there was nothing I could do for him or any other like him."[58]

Even after Behring's antitoxin first became available in 1893, physicians and patients were slow to see its value. Despite a severe epidemic of diphtheria the following year, a discussion of the disease at the Topeka Academy of Medicine brought only a casual mention of antitoxin as "still on trial." It was apparently not used in Kansas until 1895 and then only sporadically, with considerable opposition. An editorial in the *Western Medical Journal* at Fort Scott described the serum as a "fad" and condemned the press for its "injudicious haste" and "craving for notoriety" in publicizing it. Some feeling of the strength of the opposition can be gained from the paper of a Wetmore doctor read to the Northeastern Kansas Medical Society in early 1895, which condemned any "injecting into the arms of our dear ones of the decomposition products derived from some animal perhaps half rotten with tubercle, anthrax, glanders, or some other foul disease." Bolder doctors, however, resolved to try the serum when the epidemic renewed its malignancy in the summer of 1895. Evidence soon began to pile up of its miraculous work and the majority of doctors were converted within a short time. Later, the Board of Health would require that antitoxin be given in every case where throat swabs confirmed the presence of the disease.[59]

Diphtheria antitoxin, called the "savior of the children" by newspapers of the 1890's, gave spectacular confirmation to the view that public health work in the future would be preventive and educational. A science of public health was in the making, with bacteriology and sanitary engineering as its base, and education as its handmaid. Doctors, too, must be teachers. Dr. J. L. Gilbert of Topeka urged the Kansas Medical Society in 1896 to "teach

that the consumptive who expectorates on the street . . . adds untold misery to the world. Teach that the child with a sore throat may be the means of sending the dark angel into many a household. Teach that cleanliness is next to Godliness." In the next great epoch of public health, the state's greatest work would be in health education, and her greatest doctor would be first and foremost an educator; but the scientific foundation for their achievements was laid in this darker, cruder, yet supremely adventurous age.[60]

Thus, the revolution which had begun in the laboratories of Pasteur, Koch, and Behring had its reverberations, at times muted, in the distant commonwealth of Kansas. Surgeons and physicians, specialists and sanitarians, legislators and health officers had felt in turn the stir of new discovery. Other parts of the medical world also caught the early light of the dawn of modern medical science. Hospitals, medical schools, medical societies, and professional journals were charged, too, with the impulse of new knowledge and changing attitudes.

The revolution in medicine meant most to the hospitals. Aside from the federal forts, they had scarcely existed in Kansas in the pioneer era, and the few exceptions were simply places for the care of strangers and the sick poor. Hospitals were emphatically for the care, rather than the cure, of patients. Friendless, unclean, saddled with a reputation for unhealthfulness, they provoked loathing, even terror, in the mind of the average citizen. No self-respecting woman ever thought of having her baby in a public hospital. No patient in his right mind went there if he could possibly avoid it. If hospitals were to be more than "vestibules to death," they must overcome the dread of surgery, suppress the "hospital fevers" which threatened those who survived the operating table, and provide services not available in the home.

These things were all accomplished by the end of the century and the fear of hospitals was fast breaking down. Antisepsis

and advances in surgery changed their whole atmosphere. The few pioneer institutions, such as St. John's of Leavenworth, founded in 1864, were now joined by dozens of other hospitals, which offered such new services as X-rays, trained nursing, special diets, and laboratory tests. Typical was the conversion of the older Leavenworth Home for the Friendless of the 1870's—the name is descriptive—to a full-fledged hospital, Cushing Memorial, in 1893. This new hospital was the work of a band of local physicians, as was true of so many of the hospitals founded in the 1880's and 1890's, an indication that the public was still far from taking the initiative. Sometimes they were little more than private hotels for the doctor's patients. One critic in 1894 called these doctor-owned hospitals a "distinct evil," since they offered the doctor the temptation of prolonging a patient's stay for purely economic reasons.[61]

Perhaps the first modern hospital in Kansas was Christ's Hospital in Topeka. When the early plans for this institution were being made in 1882, the population of Kansas had already passed one million, with St. John's of Leavenworth still the only civilian hospital in the state. The success of Christ's Hospital was due to a famous Topeka surgeon and a clergyman's wife. Ellen S. Vail, wife of an Episcopal bishop, had come to Kansas with two young children in 1864. Her family was early attacked by some mysterious ailment which claimed one of her children and left her a blind invalid. Now dependent on friends and relatives, she turned her sympathies to those without such tender care. With her husband's help, she bought ten acres on the outskirts of Topeka, and then began canvassing fellow-townsmen for contributions for a hospital. One of the early contributors and a long-time chief of the medical staff was Dr. John C. McClintock, whose career was inextricably woven into the life of Ellen Vail's hospital. Finally, in 1884, the hospital was opened in a small, wooden structure of army pavilion type. Another decade passed before Dr. Milo B. Ward, the founder of many medical institu-

tions, opened the second Topeka hospital with funds contributed by Jane C. Stormont, widow of another prominent Topeka physician. Initially a woman's hospital, it was converted to a general hospital, the Jane C. Stormont Memorial, in 1897.[62]

Other cities likewise gave some support to the hospital movement in the 1880's and 1890's. In Emporia, citizens and doctors furnished food, money, and medical assistance to the Poor Sisters of St. Francis, who opened St. Mary's Hospital there in 1884. A year later the first hospital was established in Wichita by local women seeking to give shelter and assistance to the homeless and sick of that city. This was the nucleus of the Wichita Hospital, chartered in 1889. Also in Wichita Andy Fabrique collected fifty dollars in 1887 to pay the first rent on a small hospital, whose operation he had persuaded the Sisters of Mercy to undertake. It was indicative of the hard times of the late 1880's and the still hesitant attitude of Kansans toward hospitals that this venture failed. But another Catholic order, the Sisters of the Sorrowful Mother, renewed the effort in 1889, and after incalculable hardships, including begging tours and private nursing to raise money, reached success in the changing climate of opinion toward hospitals of the 1890's. The role of these Catholic sisterhoods in caring for the sick and homeless during these dark, early days was arduous and heroic. In city after city—Leavenworth, Pittsburg, Sabetha, Concordia, Salina, Fort Scott, Hutchinson, Great Bend, and others—these sisters founded or took over the care and management of pioneer hospitals.[63]

In Kansas City, according to George M. Gray, an early surgeon there, a real future for Kansas physicians did not dawn until the Reverend Anton Kuhls founded St. Margaret's Hospital in 1887 for the Poor Sisters of St. Francis. Under their skilled management, the hospital grew rapidly in size and reputation. Five years later Bethany Hospital was organized by Methodists in the city, thus enlarging the small number of beds available for surgery and other treatment on the Kansas side of the

Missouri River. A word should be said, finally, about Douglass Hospital, the first such institution for Negroes west of the Mississippi River. One of its founders and long its moving spirit was Dr. Solomon H. Thompson, a medical graduate of Howard University and a physician of reputation and skill. In 1899 he selected with his co-founders a site in old Quindaro, which had been the gateway of free-staters into Kansas and a haven for slave refugees from Missouri. With the contributions of packing-house workers, a small state subsidy, and support from physicians, both Negro and white, the hospital was able to survive until 1905, when it was taken under the wing of the African Methodist Episcopal Church.[64]

By the late 1880's, certainly in the 1890's, hospitals were more than places for the care of those without homes or families. Surgery, in particular, was coming into the hospital, and the country doctor, as noted earlier, was lamenting the loss of a part of his practice. Probably the first hospital established primarily for surgery in Kansas, if we may believe several authorities, was that of Dr. John T. Axtell at Newton in 1887. As a recent graduate of Bellevue Hospital Medical College in New York, Axtell was conversant with the latest thinking of the medical world and unhesitatingly adopted such hospital practices as special kettles for sterilizing instruments, fresh muslin shielding each day for the skylight, and a scrubbing of the walls and floor after each operation. At first his patients were few, one account reads, "as people who could pay for care had homes and everyone still feared surgery as a last desperate resort." But by the 1890's, we are assured, his hospital had more patients than he could accommodate.[65]

After 1900 public resistance to hospitals collapsed entirely. A boom in hospital construction swept across the state. In ten years more hospitals were built than in the preceding forty-six. From 1900 to 1910, more than a score of new hospitals opened their doors, the great majority of them still privately owned.

This was the largest number built in any decade until the passage of the Hill-Burton Act and the great medical renaissance in Kansas following World War II. A more dramatic illustration of the impact of the Pasteurian revolution would be difficult to imagine.[66]

One type of hospital was not affected by the new achievements in bacteriology and hygiene. This was the mental or state hospital, whose aura of mystery and dread has not entirely lifted even in our own day. In the 19th century it was incomparably worse. Mental disease was an affliction apart, a lingering, hopeless dethronement of reason, an illness of unexplained violence which demanded isolation and custodial care. To protect themselves and their communities, insane persons must be locked up in lunatic "asylums," deprived of all normal human contacts, and, if violent, chained or incarcerated in wire "bed-cages" which would terrorize even a sound mind.

Neurology and psychiatry were only beginning to emerge as medical specialties at the close of the century, and they bore the stigma of their ties to the asylum. A few men of real distinction in these fields—Clarence Goddard of Leavenworth and Kansas City, Samuel Glascock of Kansas City, who had been trained in Vienna, John Punton of Lawrence and Kansas City, founder of the first private hospital for mental disorders in the Kansas region, and B. D. Eastman, long-time superintendent at the Topeka asylum—were little known outside their own specialties. Eastman delivered a most interesting paper before the Topeka Academy of Medicine in 1897 on what today would be called "psychosomatic medicine." He insisted that the attitude of the physician, especially if it were buoyant, hopeful, and optimistic, exerted a profound influence upon his patient. Charlatans, he said, do perform psychic cures, some of them permanent, because of their understanding of the role of the mind in disease. And he told his hearers that legitimate doctors also had a field of psychic healing which they should cultivate.

Remarkable, too, were the insights of early papers with such titles as "Some Disorders of the Stomach Considered as Nervous" and "The Gastro-Intestinal Neuroses." By the early 20th century many of the general medical journals, including the *Journal of the Kansas Medical Society,* were featuring specialized articles on mental disease.[67]

But the mental hospitals were another story. Here politics and mismanagement, brutality and overcrowding, parsimony and barbaric laws made a mockery of the best-intentioned specialist. In Kansas as elsewhere a man suspected of insanity was tried in the probate court and, if adjudged insane, committed to a state asylum. These cases of insanity were "tried" like any criminal case with juries of six, one a physician, and verdicts of "guilty" or "not guilty" rendered. In the *Fort Scott Monitor* of June 15, 1884, for example, we read that "Martin J. Davis (colored) was tried in the probate court yesterday upon the charge of insanity and found guilty." Psychiatrists pleaded that commitment laws must be changed, but they were told that these laws protected the rights of the accused. Dr. Eastman, in an able paper on "The Rights of the Insane" in 1896, argued eloquently for a newer, more humane concept of mental illness. "Insanity," he wrote, "is a disease which should be diagnosticated and treated by medical men just as typhoid fever is." Yet what was the actual practice in Kansas?[68]

Taking an insane person into court, forcing him to hear the testimony as to his own insanity, which testimony often comes from members of the patient's family . . . ; obliging him to listen to the necessary statements regarding his mental infirmity and a recapitulation of his delusions, may be likened to a case of severe gunshot wound brought into court. Six men from store, shop or stable, successively push their bacteria laden, filthy fingers into the wound, the lawyers do the same thing, the sheriff takes his turn and the janitor has his opportunity and then the case is turned over to the surgeon who is expected to do an aseptic operation.

This argument would echo again and again in the legislative halls of Kansas, but it could scarcely be put more forcibly. Most of the protests of these early superintendents, in fact, would be heard again and again until the ears of Kansans were deafened into insensibility and neglect.

Overcrowding, to take a further example, was an abiding complaint of superintendents and investigators from the time of the founding of the Osawatomie Asylum to the great upheaval of 1948. In the first report from Osawatomie, published in 1867, the superintendent estimated that the two small wards thus far constructed would care for no more than 7 per cent of the insane in the state, and reported that thirty-eight patients had already been denied a refuge. Although another wing was soon added and eventually a large central building, the protests grew louder. One visitor to Osawatomie in 1869 was Dorothea Dix, patron saint to the mentally ill in America, who predicted that all of the inmates would soon become chronic cases unless more space were provided. By 1875, a reporter was describing patients at Osawatomie as crowded together "like herrings in a box." Those who could not be taken in were lodged in poorhouses or, more often, in county jails, whence in time they might be sent to Osawatomie in exchange for incurable patients returned to county care. One superintendent's report for this period showed eighteen "chronic cases" dismissed to make room for more recent and "curable" cases. Those returned went chiefly to jails, where they were locked in a felon's cell with criminals for their companions. What this all meant for the family of a man afflicted with mental disease, surrounded by fearful neighbors, and confronted with a crowded asylum was poignantly described in 1876 by a pioneer Osawatomie superintendent, A. H. Knapp: "The Asylum is already packed full, and the patient cannot be admitted. Imagine if you can (for I cannot), the terrible shock inflicted by this intelligence. But the worst is yet to come. Officers of the law, with manacles, aided by strong men,

now appear upon the scene, and the first act closes by the sick person being seized, bound and dragged off to jail. What a commentary upon the civilization and intelligence of the nineteenth century! Can it be possible?"[69]

It not only was possible but grew even worse by the close of the century. Despite the opening of a second state hospital at Topeka in 1879, the melancholy statistics of persons denied admission mounted. In 1883 an estimate placed the number of insane confined in jails, basements, and poorhouses at more than three hundred. Shocking stories of the consequences of this policy abound in the newspapers of the 1880's and 1890's—a poor-farm keeper in Saline County killed by one of his lunatic charges, a violently insane man strapped down and guarded by four keepers in a Fort Scott jail, a Topeka man caring for the overflow from the Asylum at 50 cents per day, an elderly Lawrence woman transferred as incurable to an unheated cell shared with men in the Douglas County jail. And how much remains unsaid in this brief news item which appeared in the back pages of the *Fort Scott Monitor* in 1895: "Sheriff Allen will leave this morning for Osawatomie with Johanna W. Johnson . . . who was adjudged insane in probate court. . . . On his return he will have charge of Eliza J. Guilfoyle, an incurable who will be taken to the poor-farm at Uniontown. It was necessary to have her removed before Mrs. Johnson could be admitted as the asylum is in such a crowded condition."[70]

One would suppose from the struggle to gain entry that treatment at the asylums offered much in the way of hope. For some, indeed, it did. Despite later depreciation of the efforts of these early hospitals, the fact is that a considerable percentage of patients were restored to their families. It seems reasonable to assume that rest, reasonable quiet, nursing care, occasional psychiatric treatment, and separation from the emotional storms of their private lives must have had their healing effects. We do know that a rather extensive program of recreational therapy,

including concerts, plays, glee clubs, and semiweekly dances was carried on at the Topeka asylum in the 1880's and 1890's. There was even an asylum orchestra and dramatic club in the middle 1890's, and we learn of guest appearances of "Bailey's Orchestra, with whistling Miss Evans" and "Kurtz & Your's Legerdemain and Black Art Company" in 1895. Such a program seems scarcely benighted even by modern standards.[71]

But, on the other hand, there was no question that psychiatric and other professional help was scarce, that attendants were few, and that treatment was often brutal. At the wages paid attendants—fifteen to twenty-five dollars per month with room and board—it was scarcely possible to get skilled help, and little was done to give them the specialized training they needed. Ignorant attendants frequently misinterpreted the violence or ill manners of patients as consciously motivated, and they retaliated. Some simply regarded the insane as prisoners to be guarded, directed, and if necessary beaten. Typical of hundreds of charges of cruelty in Kansas asylums from their very beginning was a letter from an Osawatomie employee to the *Topeka Capital* about 1900. It was common, in his words, to see "such sights as throwing patients down on the floor, holding them there and stamping them until they were too weak to remonstrate or offer any resistance, kicking them in the stomach, side and face because they refuse to take a dose of medicine; dragging women around the room by their hair and throwing them against benches until they do not have life enough to cry out; smashing them on the head with scissors or anything handy; holding them in bath tubs until almost drowned; shutting them up in dust or air wells and leaving them there all night, and a thousand other such sights."[72]

It was as difficult to prove such charges as it was to disprove them. Sometimes they provided the fuel for investigation of the asylums, which were always open to the buffeting of political storms. In the 1890's both Populists and Republicans accused

each other of mismanagement, but neither did much to improve actual conditions in the asylums. A comparison of appropriations for the asylums under Populist and Republican administrations reveals that the Populists were only slightly more generous to these institutions than their opponents. But the Populist-Democratic coalition, long out of office, atoned for greater generosity by placing a larger number of political hacks as attendants in the asylums. Resignations flew thick and fast as political fortunes seesawed during the middle 1890's. "It was such a quiet day at the Topeka Insane asylum," reported the *Fort Scott Monitor* in 1894, "that only three employees were discharged." Dr. Eastman, removed by the Populists from his Topeka post, recovered it by court order. One superintendent's policy of castrating some of his charges at the Winfield Asylum for Imbecilic and Idiotic Youth became a major campaign issue in 1894. There appeared a book in 1895 under the lurid title of *Two Years in the Osawatomie Insane Asylum: A Few of the Scenes behind the Curtains,* which castigated the Osawatomie superintendent for cruelty, neglect, poor food, and deception of visitors.[73]

Finally, in 1898, came the sensational resignation of C. H. Wetmore, a Populist superintendent at the Topeka asylum, charging his Populist superiors with having stuffed the Asylum with drunkards and political hacks. The president of the Board of Charities, Horace G. Jumper, had been, in Wetmore's words, "on one continuous and protracted debauch for the last fifteen months." Political doctors neglected their patients and one had abused his position to take advantage of women inmates. Wetmore finished his barrage of charges with some rapid-fire bursts at particular persons: Dr. Wellman, son-in-law of President Jumper, was a "street fakir" and "professional quack"; Dr. D. H. Smith acquired his position because of money lent the Governor; the assistant superintendent was a "vile and repulsive" being; and the assistant steward, a position created for a friend of the

Attorney-General's, was "an habitual drunkard." Here was scandal indeed! And a doctor willing to put the interests of the insane above those of party! An editorial in the *Kansas Medical Journal* spoke for most of the state's doctors in its wish "to incite the strongest and bitterest kind of rebellion against a system which allows the continued repetition of such scandals." Certainly Wetmore's courageous revolt was instrumental in bringing reform to what one newspaper called, probably with justice, the "caldron of rottenness" at the Topeka Asylum.[74]

However melancholy this recitation of the dim achievements of politicians in governing asylums, guarding public health, and regulating medical practice, the record of Kansas is no worse than that of her sister states. Politicians, after all, are more likely to reflect strong public attitudes than to divert and lead them. And the public's view of insane asylums, boards of health, and medical men was unenlightened. Across the nation, asylums and other state institutions had become the prey of "boodlers" and corrupt gangs in the lax moral atmosphere of the post-Civil War years. Illinois, for example, experienced shock after shock of revelation and scandal in her mental hospitals. And the insane, it need hardly be said, had no political power. Other states, too, were slow to regulate medical practice and create boards of health. In a climate of apathy, mistrust, and corruption it is remarkable that doctors and reformers accomplished so much.

Politics played a less damaging role in the state's attempts to found a medical school. There was, to be sure, some early jockeying for advantage among Kansas cities in selecting a site for the medical school, but as yet to no avail. As early as 1859 a medical faculty was appointed by the trustees of the Lawrence University, then planned and expected to become the nucleus of a state university. Still later, Lawrence and other cities, especially Leavenworth and Topeka, hoped to claim the site for the medical school foreseen in the legislative act of 1864, organizing the University of Kansas. From Leavenworth came a petition to the

regents of the new university from the Medico-Chirurgical Society, urging that the medical school be located there. But the regents, recognizing the haste and rivalry behind the move, wisely concluded that it "would be premature, inexpedient and fatal to the first great objects of a State University." Having tasted defeat, the profession at Leavenworth now opposed locating the medical school at Lawrence. At their head was Dr. Logan, who sought an appointment to the board of regents to forestall a Lawrence victory. "It would be a great outrage to locate the Med. Dept. in a little town like Lawrence," Logan wrote a close friend in 1870, "with no *hospital facilities* for teaching, either present or prospective. Neither any facilities for dissections, etc. That dept. can only succeed in *Leavenworth* and it will be robbing the medical profession of its heritage and the people of their money, to plant a little fourth rate medical school in a little fourth rate, Yankee town."[75]

Neither was to win. The future site of the University of Kansas Medical School was a struggling town with no claim to recognition at all in the 1860's. But Lawrence did win a modest triumph with the establishment of a one-year preparatory course in medicine in 1879. Under the professors of chemistry and natural history, a rudimentary course of instruction in chemistry, anatomy, physiology, biology, and materia medica was offered. Like most medical colleges of the day, little was demanded in the way of preliminary education. While the university catalogue of 1880 "recommended" a full collegiate course in preparation for medical study, it quickly made it clear that all students would be accepted who were "prepared at least for Freshman class in all English studies."

But the intellectual glow of Lawrence in the early 1880's must have been an education in itself. Few students, a single building, and a small number of outstanding professors made the University of Kansas of this period almost the ideal institution for a liberal education. The brilliant Frank Snow provided

instruction in physiology and biology for the medical students; Kate Stephens remedied deficiencies in Greek language and literature; Frank Marvin taught mathematics and physics, as well as civil engineering; and "Jimmy" Green was in the midst of his long tenure as the soul of the Law Department. Interested medical students might have heard such general lectures in 1879 as Benjamin Mudge on "Volcanoes," James H. Canfield on "Russia," or General Dexter Clapp on "Abraham Lincoln." Further, tuition was free, books and incidentals were cheap, and board was reasonable. These first medical students were advised by the catalogue to "seek plain, nutritious food, well prepared, served at regular intervals, and never taken in haste nor in the presence of books."[76]

By the middle 1880's pressure was mounting for the establishment of a full medical course. Students, their teachers, and some doctors were trying hard to stimulate enthusiasm for the idea. Chancellor Lippincott, long interested in the possibility, sent a circular letter to all the state's physicians in 1888 to learn their views. A majority of the replies showed that the profession as a whole did not believe that the time was ripe to establish a medical college. What entered into their decision is difficult to say but certainly the quarrel between homeopaths and regulars (who would control the state medical school?), the question of where the school would be located, and the strong feeling that the state already had too many doctors were important. One doctor wrote Lippincott that "the crying evil of the day is the multiplication of small medical colleges. . . . This can only be made worse by establishing more medical schools in small towns and cities without proper facilities." Lippincott himself concluded that no attempt should be made unless it were done well. "It will not be wise," he told the Kansas Medical Society, "to attempt the enterprise merely because some city or some syndicate of capitalists desire it." Furthermore, he pledged that the University would not inaugurate a medical

school without the support of the medical profession of Kansas. Instead, for the present, he suggested that the University add one more year to the preparatory medical course, and raise entrance standards to a minimum of two years of college. His final words to the Society provoked a loud debate and a good deal of criticism: "Those of our own young people who desire to study medicine can find in Eastern cities the best of facilities; and however the saying of this may wound our State pride, it is doubtless true that it will be many years before any of the Western States shall be able to compete with these Eastern schools in the wealth of their facilities and in the skill of their physicians and surgeons."[77]

It was Lippincott's feeling that the integrity of the University must be preserved. Lawrence lacked sufficient clinical facilities for a full medical course but to divide the medical school would be to weaken it. The only solution for the present, at least, was for the University to concentrate on those fundamental branches of medicine—anatomy, physiology, chemistry, pharmacy—which could be taught wherever qualified men were available, in small as well as large cities.

It was another decade before the School of Medicine was finally organized on a two-year basis. In the meantime, enrollment in the preparatory program was falling off—at one time only two students were enrolled—and transfer to other medical colleges following the single year was becoming increasingly difficult. Francis H. Snow, long eager to give Kansas a state medical school, had become chancellor in 1890. For a time it seemed that Snow would be able to achieve a complete medical school when Dr. Simeon Bell of Rosedale offered the University land and money with a total value of $75,000 in 1894, providing that clinical teaching, at least, be carried on in a hospital to be built in Rosedale. But opposition mounted, particularly from Topeka physicians and those farther west, who were opposed to the school's location so far east where it might be dominated by

Kansas City, Missouri, specialists. Further, it would take time to provide more facilities at Lawrence for a second year of basic medical study, as well as clear the Rosedale land and undertake construction. Bell's offer was not so much declined as held in abeyance.[78]

In the ultimate organization of the two-year school in 1899, another powerful University of Kansas professor emerges as the dominant figure. When Snow was elected chancellor, he wrote to his old friend, Samuel W. Williston, a Kansas State College graduate then teaching anatomy at Yale, that he would accept the chancellorship only if Williston would come and help carry on the work in science. He came and a greater intellect than his has probably not been seen on the campus since. Master of a number of languages, a world authority on flies, expert in fossil reptiles and amphibians, paleontologist, and author of a great report on the geology of Kansas, he was a versatile scholar. While at Lawrence, this tall, imposing, energetic man served on the State Board of Health, wrote the first effective medical practice law in 1901, and was the prime mover and first dean of the School of Medicine. A teacher intensely interested in his students, impatient of large classes, he left an indelible mark on scores of his Kansas students who gained prominence in a half-dozen scientific fields. Clarence E. McClung, probably his greatest student, recalled "an earnest and imposing gentleman in frock coat, who, in high pitched voice and rapid utterance, talked for an hour upon a subject which my freshman . . . mind followed most limpingly. Although it is a quarter of a century ago I can recall in detail the voice and gestures of this astonishing man who, upon one day, could be simple and common, and upon the next the inspired prophet, in public exposition, of philosophies which profoundly moved his large and critical audience."[79]

Williston was dean of a medical faculty in 1899 which included such outstanding men as Lucien Sayre, nationally known

dean of the School of Pharmacy, E.H.S. Bailey, noted chemist, Clarence McClung, who taught histology and embryology, and Marshall Barber, bacteriologist and future world-renowned specialist in malaria. Significantly, it was Williston who first interested Barber in the malaria parasite. Barber had offered the first course in bacteriology to medical students at the University of Kansas in 1896. This was only a few years after the subject was introduced into Chicago and Philadelphia medical colleges.[80]

Williston fought hard to get recognition of the two-year course. He pressed the School's claims before the Association of American Medical Colleges in 1899 and won its approval. But the Illinois State Board of Health, one of the most influential examining boards in the country, steadfastly refused to give recognition to a two-year school. The indefatigable Williston hurried to Springfield, where he pleaded his cause with the Board's president. He also enlisted the support of William Rainey Harper, president of the University of Chicago, soon to entice Williston to his school as professor of paleontology. Finally, success crowned his efforts, and other examining bodies, including the New York State Regents, followed suit in approving the two-year course.[81]

Not all of the state's doctors were happy about the cautious, hesitant policy of the University in advancing toward a full medical course. Some wanted a complete medical school from the first. Others were jealous of Lawrence as the site of the embryo school. Still others saw in medical education the prospect of making money. Across the nation there had sprung up in the 19th century a whole series of proprietary schools, usually physician-owned, which outrivaled each other in shortening curricula, reducing tuition, and setting easy requirements for degrees. The proprietary medical college fitted in perfectly with the rampant spirit of free enterprise and laissez-faire so characteristic of this age in America.

Kansas, too, had its share of proprietary medical schools,

most of them unsuccessful. Scarcely a city of any size in Kansas escaped the organization of a medical college, though few went beyond the charter stage. These schools demanded virtually no preliminary education, hired "professors" from the local medical talent, and promised to hand out diplomas after two courses of lectures. Cornelius Logan advertised a medical college in Leavenworth under the auspices of Baker University in 1860 with a faculty including four future presidents of the Kansas Medical Society! Doubtless the instruction at this college would have been of a higher quality than most, had it materialized. Topeka doctors, too, sought to organize a medical college in 1872 and reached the stage of opening a clinic which was to be used for instructional purposes. This college, according to the newspaper advertisement, "has large pecuniary resources, and will command a corps of professors which cannot be excelled west of the Mississippi." A well-ventilated college building, a lying-in department, and abundant clinical material from Topeka's "large floating population" were among the inducements offered. Dr. Logan greeted this announcement in his Leavenworth journal with the tart comment that "a fine college building, a hospital, and a dispensary for the poor exist only in the announcement. They will undoubtedly be well ventilated, as they are purely airy structures. We would suggest that the 'Lying-in Department, attached to the Dispensary,' should be termed the Lying-*out* Department."[82]

In 1873 the medical profession at Independence, Kansas, succeeded in opening the first medical college in the state. Although all the professional chairs were filled, according to one local account, the benches of the students were not overflowing, and the college closed its doors after two brief sessions. Dr. Logan's successor wrote caustically of the anatomical material afforded by the graveyard at Independence as amounting to "one finger per year."[83]

One final interesting though abortive attempt to found a

medical school took place in Wichita. Andy Fabrique and seventeen of his colleagues bought shares in the Wichita Medical College, which succeeded in opening its doors for two four-month terms beginning in 1889. Here, too, the would-be educators were plagued by the shortage of anatomical material, meager hospital and clinical facilities, and, above all, the paucity of students.[84]

It was the problem of finding sufficient anatomical material for dissections which plagued the one successful proprietary school of this period, the Kansas Medical College. Time and again, the students of this Topeka school, founded in 1890, complained of the inadequacy of the supply. Then, curiously, the supply improved in the middle 1890's. Complaints became fewer. Somehow, the problem seemed to have been solved. Then, suddenly, came the greatest uproar in the history of medical education in Kansas. "HOUSE OF GHOULS!" read the headline in the *Topeka Capital* for December 11, 1895. A body of a Topeka woman only twelve hours in the grave was found on a dissecting table at the Kansas Medical College. The Dean was called but denied any knowledge of the event. When he refused to open any more doors, they were broken down and two more bodies of local women were discovered. As the news spread, a mob formed and a strong guard had to be placed around the College. The Governor ordered a company of militia in Lawrence to stand on guard. Members of the faculty and student body hid or left town. A vigilante group voted to demand the identity of the "ghouls" and, if refused, to give the faculty twenty-four hours to leave town. This was subsequently amended to three hours. But law and order won the day. Several members of the faculty and a student-janitor were arrested but eventually acquitted for lack of evidence.[85]

For the medical educator, particularly in a city of Topeka's size, the problem of procuring anatomical material was acute. Following the revelations at the Kansas Medical College, Henry

Roby, the homeopathic leader in Topeka, gave voice to the physician's dilemma: "The public says to the physician: 'You shall not practice in our midst without the full knowledge of the human frame and its functions, and we shall make you a criminal under the law if you attempt it,' and then it says to him: 'Have a care! If you rob our graves for bodies to dissect, we will send you to prison as a malefactor.'" A new anatomical law passed by the legislature in 1897 made the problem less urgent by requiring superintendents of state institutions to notify medical colleges of unclaimed bodies.[86]

For a quarter-century (1890-1913), the Kansas Medical College managed to survive the manifold problems of a proprietary school in an increasingly scientific age. With virtually every able specialist in Topeka connected with the College—Milo Ward, John McClintock, John E. Minney, William E. McVey, William S. Lindsay, and a dozen others—it had prestige and stature within the state. Furthermore, it was for almost a decade the only Kansas medical college offering the M. D. degree. Enrollment climbed steadly from 22 students in 1890 to a peak of 104 in 1901, then began a precipitous decline. Rising standards, competition from the two-year course at the University of Kansas, and ease of transportation to Eastern schools all contributed to the decline. Only a small percentage of the students completed their medical training at the College, never more than 25 per cent. Yet for a generation of Kansas doctors the Kansas Medical College stood for small classes, individual attention, local initiative, and opportunity close at hand, all characteristics of abiding merit.[87]

It was the rise of scientific medicine in Kansas which doomed the private medical college. No venture financed and operated by a score of medical men could for long keep pace with lengthening curricula, expensive laboratory equipment, the demand for research opportunities, and progress in the basic sciences, where even full-time scholars now had difficulty in staying atop

the flow of events. Not until the 1890's were the medical schools in the Kansas region even graded; previously a student would hear the same exhaustive (and doubtless exhausting) lectures and demonstrations for two successive years.

A similar story could be told of the medical schools of greater Kansas City, a number of them located on the Kansas side, but all dependent on the metropolitan population to fill their hospitals and clinics. Nearly a score of Kansas City medical schools, regular and homeopathic, eclectic and female, high-grade and low, played their brief roles and left the medical stage between 1869 and 1916. The great majority were short-lived: some were outlawed by the Missouri Board of Health; a number were closed for lack of students; three of them were absorbed by the University of Kansas School of Medicine in 1905. Perhaps a thousand graduates went forth from these schools by 1916 to practice their art, for the most part in Kansas and Missouri. Those from the better schools, such as the Kansas City Medical College and the University Medical College, both in Missouri, had probably received as good a medical education as was available west of Chicago. One by one, however, these schools gave up the fight, particularly as the forces of reform gathered in the first decade of the new century, until only the University of Kansas School of Medicine was left.

One final area of Kansas medical life which felt the spur of a more scientific atmosphere was medical organization. Just as the Kansas doctor of the late 19th century sought to modernize his medical practice, improve hospitals and public health, and lift up the standards of medical schools, so did he strive to raise the quality and worth of his medical associations. A Kansas medical meeting of the 1890's was likely to be an exciting adventure as returning doctors described a lecture of Koch's or a visit with Behring, or demonstrated the latest bacterium found responsible for some deadly disease. Members of

the Kansas Medical Society were stimulated to do more original work by the news of remarkable discoveries in Europe. The number of original contributions to the medical journals of the state rose markedly in the 1880's and 1890's. Papers dealing with surgery, pathology, and bacteriology became increasingly popular at medical meetings. It was now clear that medical societies served a vital scientific and research function as well as the traditional social one.

Reflecting the rising interest in medical organization was the spectacular jump in membership of the Kansas Medical Society. Figures for 1888 show close to 300 members, and by 1900 membership must have soared beyond 400. For the first time, county and district societies were restricted in the number of delegates they might send to the annual meetings, but this limitation was apparently abandoned after a brief trial as too severe. Sections were also organized so that doctors interested in the growing specialties might meet apart from the general scientific sessions. Another attempt was made, too, to make Topeka the permanent site for the annual meeting but this went down to defeat by a narrow margin. Topeka, however, continued to be the favorite meeting-place of most of the state's doctors, thanks to its excellent rail connections and the zeal of the local profession in arranging entertainment and recreation. We read that in 1888, for example, the arrangements committee invited the assembled doctors to take a free ride on the city's new street-car system.[88]

Questions of medical ethics sometimes occupied an inordinate amount of time at these annual meetings. The *Kansas Medical Index* complained in 1881 that scientific papers were sometimes sacrificed to lengthy discussions of personal quarrels and ethical matters. Controversy arose from a lack of clarity and consistency in interpreting the code of ethics of the American Medical Association. Typical cases involved charges of advertising, consultation with homeopaths and eclectics, and practicing contract medicine. A resolution had been adopted in 1871 condemn-

ing all contract doctors and "those bidding for practice at less rates than those established by a majority of regular graduates of the same locality." But difficulties arose. What of doctors employed by business corporations on a yearly salary? And when was a doctor advertising? Did advertising include the placing of professional cards in a newspaper? Some held that it did, but members of the Elk County Medical Society voted in 1902 to keep their cards in the newspapers. What of involuntary advertising of doctors' feats by newspapers themselves? These were all difficult questions with varying answers. Expulsion from the Kansas Medical Society for unethical conduct was uncommon before 1900. Apparently the first member of the Society to be expelled was a Lawrence doctor in 1868, but we are left uncertain as to the reasons for this drastic action. A very rare case of expulsion for plagiarism occurred in 1893, when a Kansas City doctor was convicted of reading as his own a long paper on atrophic rhinitis copied from a medical journal. Expulsion from county and regional societies was even more uncommon. One of the few cases on record occurred at a South Kansas Medical Society meeting in 1887, when a Winfield doctor was expelled on the cumulative grounds that "he is not a graduate in medicine, he is an incompetent practitioner, he is unprofessional, and he is an abortionist."[89]

By the 1890's doctors were equally concerned at the low economic status of their profession. Not only did they face the competition of quacks and irregulars, but their incomes generally were low, patients were reluctant to settle accounts, and they gave much of their time to charity. This was also a period of severe depression in Kansas, and rural practitioners, in particular, felt the pinch of low farm prices and shrinking population. Many local societies drew up fee-bills in this period to prevent cutthroat competition among doctors. But they had no legal status and were difficult to enforce among members. Some doctors were strongly opposed to them as savoring too much of

trade-unions. According to the editor of one medical journal, "Every physician ought to be left to obtain for his services whatever he thinks they are worth or as near it as he can induce his patients to come." Where fee-bills were adopted, charges had scarcely advanced beyond the pioneer era, ranging from 50 cents for prescription writing to $1.50 for city visits, with 50 cents per mile added for country calls. The Elk County Medical Society set $10 as the charge for deliveries and tonsillectomies in 1902, and a like charge for consultations.[90]

A new economic concern appeared in the 1890's in fee-splitting. More and more specialists, especially surgeons, were engaging in this practice of returning a portion of the patient's fee, without his knowledge, to the referring doctor. This quickly became, in practice, a competition between specialists as to who would offer the largest commission to the general practitioners of the surrounding countryside. The practice was justified on the ground that it spared the doctors concerned the unpleasant necessity of presenting the patient with more than one bill; but the potentialities for abuse were very early apparent. As one Kansas Medical Society president, Lawrence Reynolds of Horton, expressed it: "It is so easy and profitable to divert a case from one to another that the temptation with some is too great to be resisted." Both the Kansas Medical Society and a majority of the local societies condemned fee-splitting, but many years would elapse before the practice was brought under control.[91]

One last economic grievance of the local practitioner was the niggardly fees paid by county authorities for medical care of the poor. Sometimes this took the form of asking local doctors to "bid" for the pauper practice, with the contract going to the lowest bidder. In any case there was widespread dissatisfaction among doctors. "We protest," read an article in the *Kansas Medical Index*. "If the poor are entitled to medical attention at the expense of the county, we say the county ought to pay the physician a fair and reasonable compensation." Why, the argu-

ment ran, should the doctor supply cut-rate services any more than the grocer, butcher, or the landlord? Here was another vexing problem that would not soon be solved to the physician's satisfaction.[92]

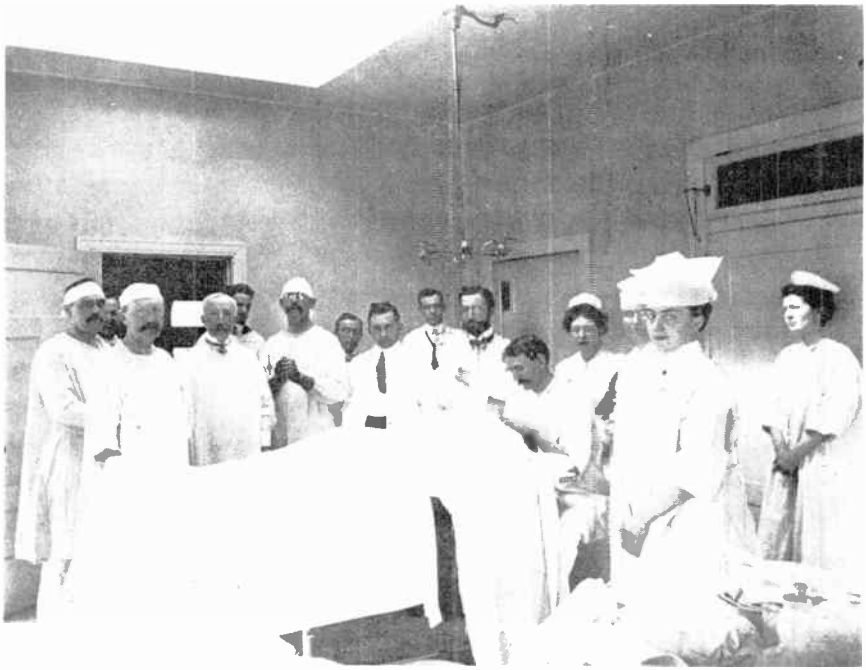
As the 20th century dawned, the Kansas Medical Society embarked on a new venture with far-reaching effect upon the medical practice of Kansas. This was the inauguration of the Society's own publishing medium, the *Journal of the Kansas Medical Society,* in 1901. Within a very few years, it absorbed the few competing periodicals and became the sole medical journal published in the state. Its success in wiping the slate of competitors came just as the state medical school was in the process of doing the same thing in medical education. In both cases, superior resources, rising standards, and the impact of scientific medicine were responsible.

Earlier it had been different. A number of commercial medical periodicals, some very successful, had been published in Kansas since 1867. Cornelius Logan and Tiffin Sinks had started the state's first medical journal in Leavenworth during the pioneer era. In the years in which it appeared (1867-1875), the editors pleaded constantly for original material from Kansas doctors, urging them to "wake up and seize hold of your pen . . . your practice don't require your whole time; if it does, you have more patients than we do." With the demise of the *Leavenworth Medical Herald,* as it was called, the editor's mantle was transferred to F. F. Dickman of Fort Scott, a Prussian-born, Civil War veteran who for four years (1880-1884) made his *Kansas Medical Index* the liveliest journal in the Middle West. Vigorous, outspoken, reform-minded, Dickman caused the journal to live up to its motto of "Independent in all Things, Neutral in Nothing." Later he inaugurated a second journal at Fort Scott, the *Kansas Medical Journal,* which ran for thirteen years (1890-1903) before it was swallowed up, along with the short-lived *Wichita Medical Journal* (1902-1903), by the new organ of the Kansas

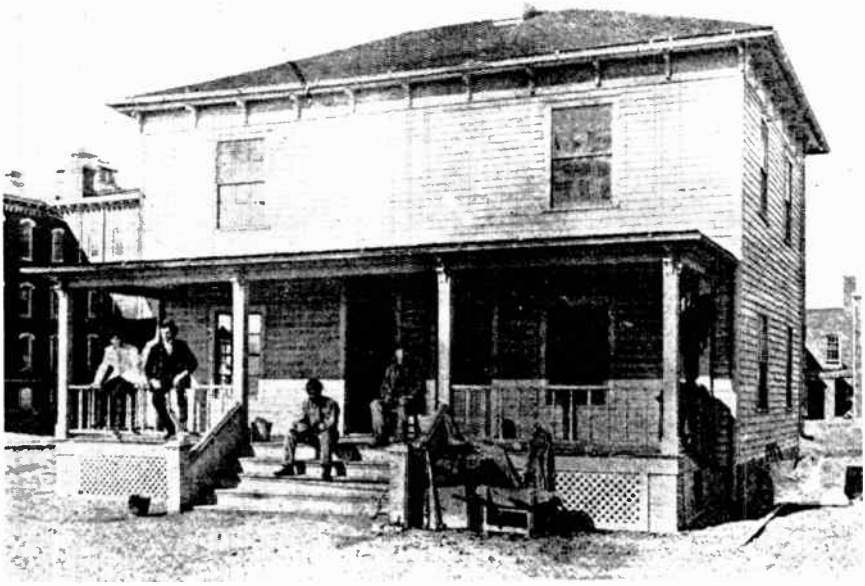
Medical Society. One final Kansas journal of importance was published in Topeka by the versatile, scholarly William E. McVey, later the brilliant editor for almost twenty years of the *Journal of the Kansas Medical Society*. Like all of these early ventures, McVey's *Kansas Medical Journal* (1889-1898) was divided into sections on original communications (always sizable in this journal), proceedings of medical societies, abstracts of important European and American articles, reviews, and outspoken editorials. It is a matter of some interest that Logan, Sinks, Dickman, and McVey were at one time all presidents of the Kansas Medical Society, the body which would carry on through its new journal the journalistic tradition which they had helped very greatly to shape.[93]

Scarcely a president of the Kansas Medical Society in the 1880's and 1890's failed to point to the long-standing need for reform in the structure of medical organization in Kansas. City, county, regional, and state medical societies existed side by side, frequently overlapping, with no clear line of authority or jurisdiction between them. All sought to send representatives to the American Medical Association, as well as to the annual meetings of the state society. A doctor by virtue of his geographical location might be eligible to membership in as many as six medical societies, or perhaps only one, if his region was sparsely populated.

An attempt had been made in 1879 to organize district medical societies throughout the state, particularly for the benefit of thinly populated counties, but this had only complicated the problem. No territory was to embrace fewer than 75 doctors, thus assuring, it was hoped, a good attendance at the semi-annual district meetings. In time, a South, Southeastern, North, Northeastern, Central, and East Kansas Medical Society, together with a Kansas Valley Medical Society, were called into being. By the end of the century, however, most of these district societies, crippled by competing fraternities and slow transportation, were dead,



Above: Operating room in Jane C. Stormont Hospital, Topeka, about 1900
Below: Interior of staff room, about 1900
Courtesy of the Kansas State Historical Society, Topeka



Above: First Osawatomie Insane Asylum, about 1902
Below: Dr. F. E. Richmond's office in Logan, Kansas, about 1906 (Dr. Richmond is in the center)
Courtesy of the Kansas State Historical Society, Topeka

except for the still vigorous South Kansas Medical Society centering in Wichita.

Of the other medical societies organized in these years, the Golden Belt Medical Society best illustrates the continuing dependence of medical organization upon good transportation in Kansas. Lying athwart the Union Pacific rails through central Kansas, the district taken in by this Society included Hays, Salina, Abilene, Junction City, Manhattan, and Topeka, a total stretch of 200 miles. This enormous distance may be contrasted with the twenty miles which separated the most distant practitioner from the county seat in Elk County, yet we read in 1905 that "on account of the muddy condition of the roads and threatening weather, none of the physicians from other parts of the county were present." The shortest distance between two points, for these years at least, was not a straight line but a railroad! Elk County, it should be said, was one of several new counties to organize medical societies in this period. Others for whom records dating from these years are available include Lyon (1882), Neosho (1886), Pratt (1887), Pottawatomie (1889), Wyandotte (*c.* 1890), and Douglas (1898).[94]

As the new century opened, the Kansas Medical Society underwent the most drastic transformation since its birth. Beginning in 1901 plans were drawn to tighten the relations between the county, state, and national medical associations. Membership in a county medical society now became a requirement for participation in the work of the Kansas Medical Society. The state society in turn would send only official delegates to the American Medical Association. For years it had been the practice of a good many doctors to join the state society, which was required before they could join the American Medical Association, and then drop out of the state body once the admission to the latter had been won. But henceforward, in line with far-reaching changes adopted by the American Medical Association in 1901, this would no longer be possible.

In the new constitution of the Kansas Medical Society approved in 1904, the purpose of reorganization was declared to be "to federate and bring into one compact organization the entire medical profession of the State of Kansas." All members of the Society must now be members in good standing of their county medical associations. Delegates from these component county societies would sit as a House of Delegates, now the legislative body of the Kansas Medical Society. There were also to be six district societies, from which councilors would be elected to a central Council, to become the executive arm of the Society. Councilors would also act as "organizers, peacemakers, and censors" in their own districts.[95]

Here were radical changes indeed for a Society claiming only one-sixth of the state's doctors! Only a fourth of the counties, moreover, had functioning medical societies in 1904. There was also opposition. Wichita and the South Kansas Medical Society complained of the dominant role played by those described as the "Topeka crowd" in the reorganization. Fears for the democratic character of the reformed Society were voiced. When the Golden Belt Medical Society was asked to become an auxiliary society, it refused at first. "What can the K.M.S. return to us for the three dollars they ask us to contribute?" demanded a prominent Golden Belt member, "They never have returned anything save a training in political maneuvers." There was even some talk of these two powerful organizations seceding from the Kansas Medical Society to form their own independent society.[96]

Eventually, however, both acquiesced in the reorganization. A very successful state meeting in Wichita in 1905 did much to dispel the clouds of resentment which had blown up from the South. Political wisdom prevailed, too, in the choice of a Wichita man, Dr. C. E. Bowers, as president of the Society. By 1905 an organizer from the American Medical Association could report that the membership of the Kansas Medical Society had doubled

to around 800 within four years. Less happy was the spirit of hostility to the state society which he found in the district meetings he attended, and he was strongly critical of the weakness of county medical organizations in Kansas. He was sure, however, that Kansas "was ripe for a real reform."[97]

Real reform had, in fact already come to Kansas. More important to Kansas doctors than the reorganization of the Kansas Medical Society was the host of new laws affecting medicine which came with the new century. In the same year that the Kansas Medical Society was planning its drastic reforms, a Kansas legislature passed two laws for which the Society had long fought hard and for which scientific medicine had prepared the way. In the memorable session of 1901, Kansas gained both a strict quarantine law and a law against quackery.

These measures may be thought of as the logical culmination of a quarter-century of scientific advance, professional struggle, and growing public enlightenment. The spectacle of powerless health officers in a serious epidemic and unlettered doctors in an age of science had become ludicrous by the 20th century to even the dullest mind. A tide of opinion more favorable to the medical profession was welling up as the century turned, and these were only the first fruits of a more friendly view.

Even the ancient wars against homeopaths and eclectics seemed out of date as the meaning of the Pasteurian revolution sank deeper into medical consciousness. In fact, only close collaboration among all three schools of medical thought made possible the presentation of a united front to the public and legislature in 1901. A series of joint meetings with eclectic and homeopathic physicians was held by the Kansas Medical Society at the close of the century to work out details of the new law. Chastened doctors from all three branches heard a homeopathic spokesman, H. M. Ochiltree of Haddam, tell them that "the great Chinese wall has been broken down and the three great schools of medical practice stand face to face, hand in hand, in

the attitude of fraternity." In this tolerant view Kansas certainly led the Midwest and a good part of the nation. Henry Roby warned his homeopathic brethren outside of Kansas that sectarian medicine must crumble in an age of science. "I sincerely hope," he wrote to a severe critic of *rapprochement* with the "regular" physicians, "that the homeopathic press, both east and west, will now show itself honest and generous enough to let up on flinging their maledictions at the Kansas fraternity, and let us set the pace for a higher comity and a better agreement in the ranks of medicine. We are ripe and ready for it."[98]

The medical bill which brought homeopaths and regulars together in 1901 was largely the work of Samuel Williston, who had first made a careful study of the laws of other states. It provided for a Board of Examination and Registration of seven members, two of whom would be Williston and Roby, which would register the diplomas of medical graduates and administer examinations to those without them. Those in practice for seven years as of 1901 were exempt, but after April, 1902, *every* new licensee must show proof of four terms of six months each at an approved medical college. At the discretion of the Board, he must also pass an examination. Under the new law, 2,269 licenses were issued to graduates in medicine in the first year, as well as 258 to those exempt under the seven-year clause. As the ranks of these 258 "doctors by courtesy" thinned in the years ahead, the quality of medical practice in the state must inevitably improve.[99]

In just a few years, these Kansas doctors of the early 20th century saw their state society reorganized, medical regulation finally won, quarantine at last given the force of law, and ancient homeopathic and eclectic enemies extend the hand of friendship. The long winter years of frustration and denial had drawn to a close, and doctors saw in these measures the first flush of a more abundant spring.

By 1904 a half-century had passed since the first pioneer doctors had made their way into Kansas. Towns had been built, the land cleared and cultivated, iron rails flung across the state. They had been years of crisis and calm, struggle and achievement, hard times and good. In the interim much had happened and swiftly, in medicine. In a single lifetime a man might have seen the first doctor, the first hospital, and the first specialist in his home town. He might also have seen the first vaccination, the first quarantine, and the first sanitary regulation of his community life. He might even have seen the first doctors trained in Kansas schools come home to practice.

Changes had been swift and vast. Medical practice, public health, hospitals, medical schools, and professional societies had all felt the twin thrust of a medical revolution and an expanding population. A new sense of confidence and mission runs through the journals and society meetings of the Kansas doctor in this second great epoch of Kansas medicine. If the first generation of doctors had planted the seed of future Kansas achievements in medicine, this second generation had nurtured it well. It remained for the third generation to pluck the ripe fruit.

III

Kansas Leads the Nation in Public Health (1904-1923)

"KANSAS IS ONE OF THE FEW really active states in health work," remarked J. W. Kerr, assistant surgeon-general of the United States, to a reporter in 1914. He had just made a thorough investigation of the work of the Kansas State Board of Health. That same year the Pure Food and Drug Commission of Illinois invited the secretary of the Kansas Board, Samuel J. Crumbine, to come to Springfield and assist the Commission in its inspection and educational work. But the Board could not spare the man rated by Illinois experts as the greatest food official in the nation. A Rhode Island newspaper also carried an account that year by a Providence doctor who had been investigating state boards of health for the American Medical Association. "I stopped off in Kansas," he wrote, "to learn, not to investigate. Dr. Crumbine's work is too well known in the East to require anything but emulation."[1]

And so it went for a score of years. Newspapers in New York, Boston, Chicago, and a dozen other large cities regularly contained accounts of the latest campaign of the best-known man in Kansas. The *Boston Transcript* gave him credit for the best pure food law in the country; the *American Food Journal* called him a "model official"; a thousand papers carried stories of his great campaigns against the housefly, the common drinking cup, and the roller towel. Others applauded his war against insanitary hotels, his pioneer campaign for child hygiene, his efforts at tuberculosis control, or his handling of the great influenza epidemic of 1918. Still others were amused by his homely aphorisms on health, his flair for the dramatic, his threats against Missouri prostitutes who infected Kansas men. His colleagues elected him to every national office within reach of a health

officer; his successes and his popularity became, in the words of William A. Evans, a Chicago health officer, "a beacon of encouragement to other states"; and not a few prominent experts wanted to see him succeed the great Harvey Wiley, father of the American pure food and drug movement, as chief of the Bureau of Chemistry. Some Kansas newspapers even put forward his name as a likely governor of the state.[2]

How much had happened in so short a time! When Samuel Crumbine became secretary of the Board of Health in 1904, the yearly appropriation for all purposes was $3,080. Of this munificent sum, Crumbine received $1,200 in salary. His predecessors, of necessity, has spent a good deal of their time in private practice in order to make ends meet. Governor Hoch even suggested that the board should be combined with the Board of Medical Registration in the interests of economy and efficiency! Under his predecessors, the Board had become as much a political football as the asylums. The Populist secretary, Henry Dykes, had won an emergency appropriation of $10,000 in 1893 to fight off an expected cholera invasion, but when the contagion veered away from the Midwest, he confronted a hostile legislature and press. "Confiscate the cholera fund before Dykes spends the rest," screamed a score of politicians. "He Almost Smells Cholera in the Air Now" was the sarcastic headline in the *Topeka Capital* above a letter from Dykes defending his use of the fund. This vigorous secretary was now driven from office, and new movements to wipe out the Board were known to be afoot. Widespread was the feeling, aggravated by ruthless politics, that the Board was "a useless and expensive appendage." An editorial of this period from the *Topeka State Journal* asserted that "it isn't worth ten cents to the people of the State." Then, in 1899, came the final indignity when another deposed Populist secretary, H. Z. Gill, refused to resign. The state was treated to the spectacle of two secretaries battling for the office. When the Governor marched to the Board of Health office one noon and

replaced the locks, Gill took up vigil at a desk in the corridor, where he claimed he was transacting the business affecting the health of the state. Nor would he capitulate until month's end, when the state treasurer denied him his salary.[3]

This was hardly the atmosphere in which good public health work flourishes. Crumbine was more fortunate in the political era in which he lived and worked. For the early 20th century was a period of political cleansing and reform. Across the nation a series of blows were struck at machine politics, corruption, and dishonesty in government. Reform-minded leaders sought to break up the trusts, destroy special privilege, and restore government to the people. Some spent their energies in slum clearance or improving the health of underprivileged children; others aimed their efforts at the great drug trusts, patent medicines, or food adulteration; still others exposed the shocking insanitation of packing-houses and their products. Jane Addams, Jacob Riis, and Upton Sinclair were as well known to this new generation as Edward Harriman and John D. Rockefeller had been to the last.

Many of the reforms of this Progressive era struck Kansas with peculiar force. Idealism and bitter experience had convinced many Kansans that much needed to be done to make government more representative, business more democratic, and society more equalitarian. Under such Progressive leaders as Edward Hoch, Walter Stubbs, Arthur Capper, and William Allen White, Kansas instituted the direct primary, put public utilities under state control, set limits on freight charges, and lessened the politicians' grip on the welfare institutions of the state. Thus, the political atmosphere which Crumbine took in at his Capitol office was fresher, cleaner, and more invigorating than any breathed by his predecessors.

Wholesale attacks on the Board of Health ended. Crumbine found the support his precursors had missed in editors, legislators, and the people as a whole. Particularly was this true

when he flayed the great drug chains, excoriated the railroads for their lack of co-operation, or shamed the purveyors of adulterated food. Here were public health issues with a sharp political angle. Public health could be made as exciting as politics when a courageous, likable warrior like Crumbine, with a flair for drama and publicity, went forth to defend the people against the trusts, food chains, dairies, and packing-houses which were poisoning and defrauding them.

Here was the secret of Crumbine's unparalleled success. Ripe for reform, the state applauded a master tactician who knew when to advance and when to retreat, when to speak softly and when to raise the big stick. His sense of timing was uncanny. By one or two dramatic strokes, he brought compliance with pure food laws, yet was fair and reasonable with the vast majority of dealers, who learned to respect him. He won more publicity for the Board of Health than was won by any other department of the government. A dry, statistical report in his hands became the raw material for a story that would capture headlines on even an eventful day. "TWO THOUSAND BABIES TO DIE SAYS CRUMBINE" was his way of dramatizing the painful statistics on infant mortality. When cuts in appropriations threatened, Crumbine might call in reporters to tell them every child in Kansas would live five years longer than other American children, and offer the opinion that this might be worth something to the people of Kansas. He had also a marvelous faculty for coining slogans—"Swat the Fly" echoed around the world from Topeka—and minting aphorisms on health which were widely reprinted. And what other state in this early period, though many were to follow, had "Better Baby" contests, gave a Governor's trophy to the healthiest county, or offered a bounty for rat's tails? Imagine if you will the little town of Fredonia in Wilson County on October 5, 1915. A great "Sanitation Parade" is in progress, with thousands of marchers led by Governor Capper and all the Senators and Congressmen of the state.

Schools are closed; enthusiastic crowds have pushed into the town from miles around; trains leaving the city are held up so that visitors will not miss the parade. There are twenty-six floats, including a procession of undertakers in deep mourning at the coming of sanitation. A huge fly is dragging in its wake thirteen empty baby buggies; boys dressed in black robes have ropes around their necks held by Typhoid, the Lord High Executioner; all the hearses of Wilson County are participating, with each hearse containing an effigy of some disease caused by insanitary conditions. Was public health education ever made more forceful or meaningful? Would anyone presume to weigh the impact of these events on the impressionable minds of children?[4]

First among the great campaigns stands the battle for pure food and drugs. In the background was the national effort to legislate against fraud and adulteration in food and drink, reenforced by the conviction of many that food and drug chains were numbered among their shadowy, powerful oppressors. The Kansas Medical Society and several local medical societies in the state supported the Pure Food and Drug Bill before Congress. One appeal for support of the food bill came from Jesse Fear, son of the Waverly pioneer doctor whose country exploits were recounted in the opening chapter. Fear told the Southeast Kansas Medical Society in 1905: "The luckless infant is fed on milk, water and chalk, later on sugar and white dirt in about equal quantities, called candy, alum in his bread, sand in his sugar, pumice stone and alum in his baking powder, logwood and tobacco in his whisky (in all states except Kansas), and if he is so unfortunate as to fail to enter at the 'pearly gates' no doubt his satanic majesty will entertain him with a substitute for brimstone that is JUST AS GOOD."[5]

Crumbine entered the lists in 1905, a year after he had come from his Dodge City practice to put on the secretary's mantle.

He had just uncovered an earlier state pure food law, thought to be unenforceable. He asked the Attorney General if he might use his meager sanitary fund to purchase samples of food for analysis. His answer was an emphatic NO. Out of his own slim salary he then collected the first samples and took them to E.H.S. Bailey, chairman of the Department of Chemistry at the University of Kansas. Here began that remarkable co-operation between Board of Health and University, soon broadened to include the Medical School, which became the envy of other states. Bailey's sensational report was published in January, 1906, and the Kansas struggle for pure food was launched. He had found adulterants, preservatives, and coloring matter enough to frighten the most apathetic. Sausages, in particular, were loaded with preservatives and artificial color. A few months later, Crumbine reported some experiments he had made in feeding dogs with food preserved by chemical preservatives. Accompanying the report were pictures of the puny, dispirited animals which told their own story. A pamphlet by Professor Bailey containing simple kitchen tests to detect adulteration was now released under the imprint of the Board of Health.[6]

With the passage of the national Pure Food and Drug Act in 1906, the way was made easy for Crumbine to press for a stringent law in Kansas. He had already inaugurated a second drive that year against fraudulent and dangerous patent medicines. Doctors had known for many years that some of them contained from 25 to 50 per cent alcohol and were dangerous to young children. Then came the death of a young girl in Ellinwood from taking tablets called "Vestitone." Crumbine sent samples of the drug to Dean Sayre of the School of Pharmacy, who told him that he had found considerable strychnine. This story, too, lost none of its drama in the hands of Kansas newspaper men. Also in 1906 came the Board's third onslaught of the year, this time against the twenty-two packing-houses in the state. This was the year in which Upton Sinclair published

The Jungle, with its hair-raising details of insanitary conditions in the Chicago stockyards. Crumbine found the country slaughter-houses the chief menace in Kansas. Revolting evidence of cumulative filth and decomposing offal, swarming flies, and decaying carcasses brought a warning from Crumbine that five days only would be allowed for cleaning up. One slaughtering house near Wellington he described for reporters as "so bad that I cannot see how the place can be cleaned in five days or fifty days. It is my opinion that the burning of the house will be the only means of eradicating the disease germs."[7]

Kansas had already learned to expect strong words, as well as strong actions, from their new secretary. William Allen White was already describing him as the "St. George of the Pure Food Crusade." Now, in 1907, the Kansas legislature provided him with a real weapon, an enforceable food and drug law. Adulteration, mislabeling, or adding preservatives to food, drugs, and medicines was made punishable by fines up to $300 and jail sentences up to one year. Crumbine was given four food inspectors to enforce the law.[8]

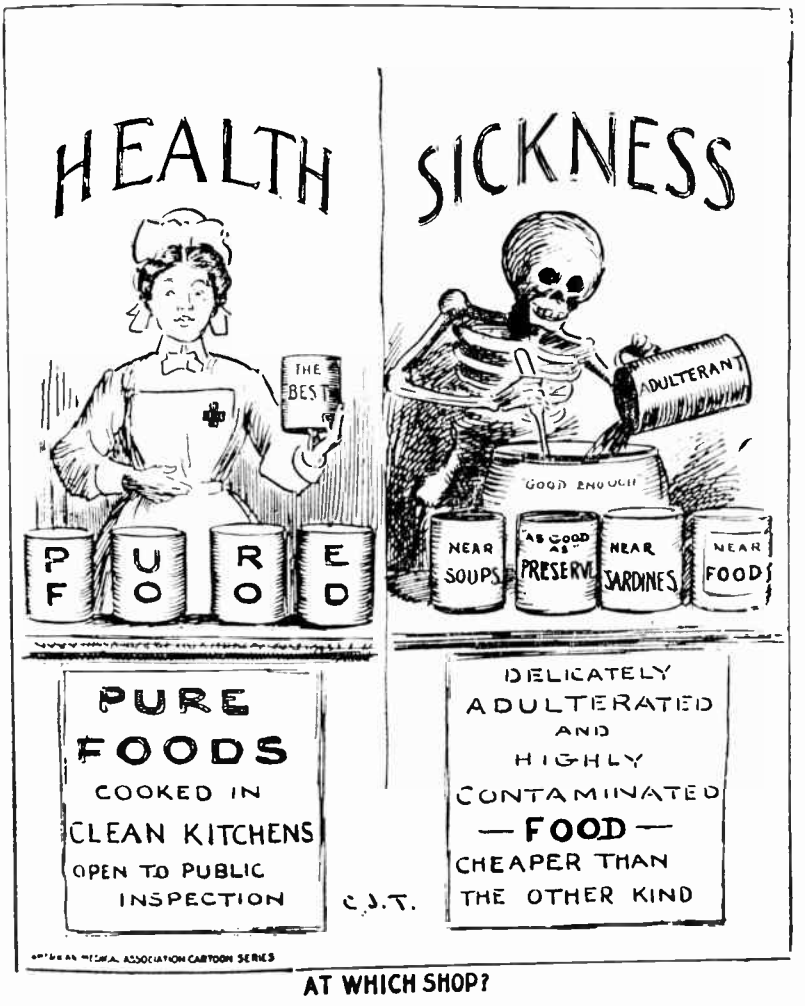
Typically, he regarded understanding of the law as the first step to real enforcement. Co-operation from the wholesale grocers had already been won before the law was passed. They had agreed to buy no more goods from manufacturers who would not stand by every rule laid down by the Board of Health. No prosecutions of retail dealers, furthermore, were undertaken until all were conversant with the law. He addressed groups of grocers, sent copies of the law to every grocer in the state, instructed his inspectors in tact and restraint, and staged a pure food show at the Kansas Mid-winter Exposition of 1907. Even the *Merchants' Journal* was praising his methods and complimenting his fairness and restraint. He was also expert at the game of bluff. "Dr. Crumbine paid his second visit to Garden City a few days ago," read a story in the *Emporia Gazette,* "and intimated that there would be something doing before long—

something that would interest the grocers who have been violating the pure food laws and regulations." But beyond the educational stage he proved he could be tough, too, with willful violators.[9]

In bringing public support to his enforcement campaign, he employed his usual dramatic technique. Dozens of women's clubs in the state witnessed his microscopic demonstrations of some of the things they were eating along with their food. One group was shown some hair, a shingle nail, and some kindling wood found in a ginger snap. For another group he picked a ginger snap at random from a box and located some broom straws in it. "This shows conclusively," he told the shocked ladies, "that sweepings about the tables where pies and cakes and cookies are made, are used in ginger snaps."[10]

One by one the items on Kansas tables were brought under the scrutiny of the Board. Glazed coffee, colored vinegar, mislabeled beer, uncovered fruit and vegetable displays, and pastry from insanitary bake shops were outlawed. All kinds of drinks from penny lemonade to 2 per cent beer were tasted and analyzed by Crumbine's men. Even the Ringling Circus was met at the station in Topeka by "Dr. Crumbine and his Light Brigade," as the *Emporia Gazette* now called them, and warned that it could not sell citric acid and water as genuine lemonade. More serious were the suits against butchers who were selling hamburger "doped" with embalming fluid. Eventually this practice, too, was stopped. Later Crumbine moved against the hash and stew being served in boarding houses and restaurants. This brought a round of merriment to the editorial pages and cartoons of the state's newspapers. Even the *St. Louis Post-Dispatch* got wind of it and printed a cartoon of a Kansas boarding-house scene, with boarders clamoring for more hash while the chef is being sentenced to thirty days' hard labor for his "bum hash."[11]

Even the patent medicine moguls bowed to the law of Kansas, which went considerably beyond federal law in its require-



From the *Kansas State Board of Health Bulletin*, February, 1912; courtesy of the Kansas State Historical Society

ments for labeling. In early 1908 Crumbine sent his men to a wholesale drug house with instructions to pick out all misbranded goods and label them "illegal." Every patent medicine bottle, according to the Kansas statute, must bear a label giving its name and formula, including the proportion of alcohol and

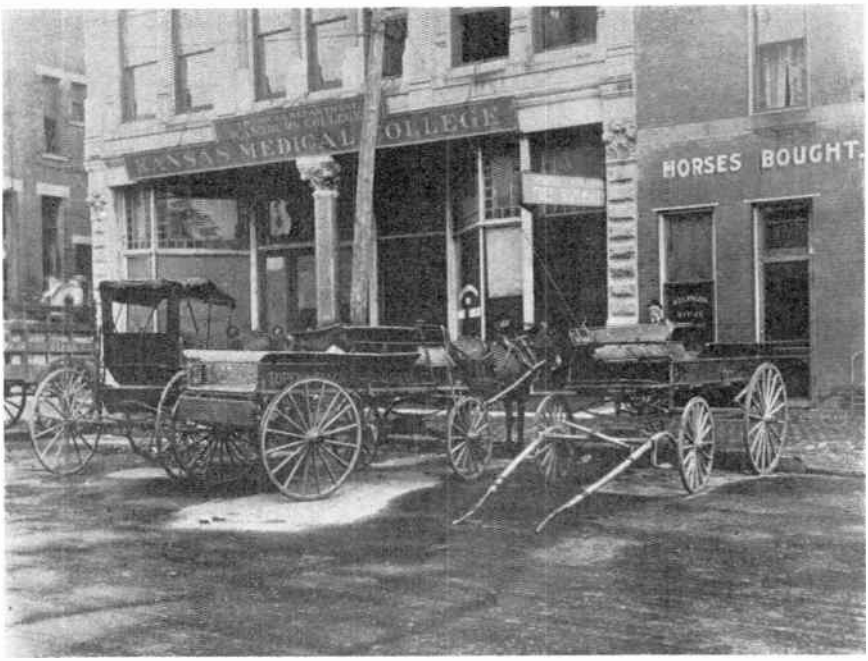
such drugs as opium and cocaine it contained. Further, no baseless claims that the medicine was a "cure" would be tolerated. Crumbine sent out warnings to mothers of the often dangerous ingredients found in the "soothing syrups" dispensed for baby complaints. The famous Mrs. Winslow's Soothing Syrup contained morphine and sulphate; Dr. Fowler's Strawberry and Peppermint Mixture also owed its soothing powers to morphine; and Dr. Moffett's Teethina Teething Powders were found to have powdered opium in their formula. Coinciding with Crumbine's mobilization of the Board of Health against fraudulent labeling of patent drugs was a Kansas Medical Society drive to get patent medicine advertisements out of the newspapers. William Allen White and a number of others complied early, but Arthur Capper steadfastly refused to remove them from his publications. When Capper ran for governor in 1912, therefore, virtually every medical society in the state pledged itself to work for his defeat. As the election results piled up to show Capper the loser by only 29 votes, Kansas doctors could claim with some justice that they had defeated him.[12]

One of the more fascinating sidelights of the many-sided Crumbine crusade for better food and drugs was the adoption by Kansas of the world's first minimum standard for oysters. That the state farthest from the ocean should lead in this regard is due to an incident in 1907 which Crumbine recalled many years later. A mail-clerk had come to his office to inform on several expressmen who had been working on the same mail-train as he. It seemed that a stack of wooden tubs containing oysters had shifted and one had broken open, dumping the oysters on the dirty floor and all over a chained dog who was being sent by express. "This is a hell of a mess," he heard one expressman say, "what will we do?" Said the other, who was in charge: "You've heard the expression 'dumb as an oyster,' haven't you? I guess they won't tell anyone where they have been." So, armed with dirty brush and pan, they scooped up the fallen oysters,

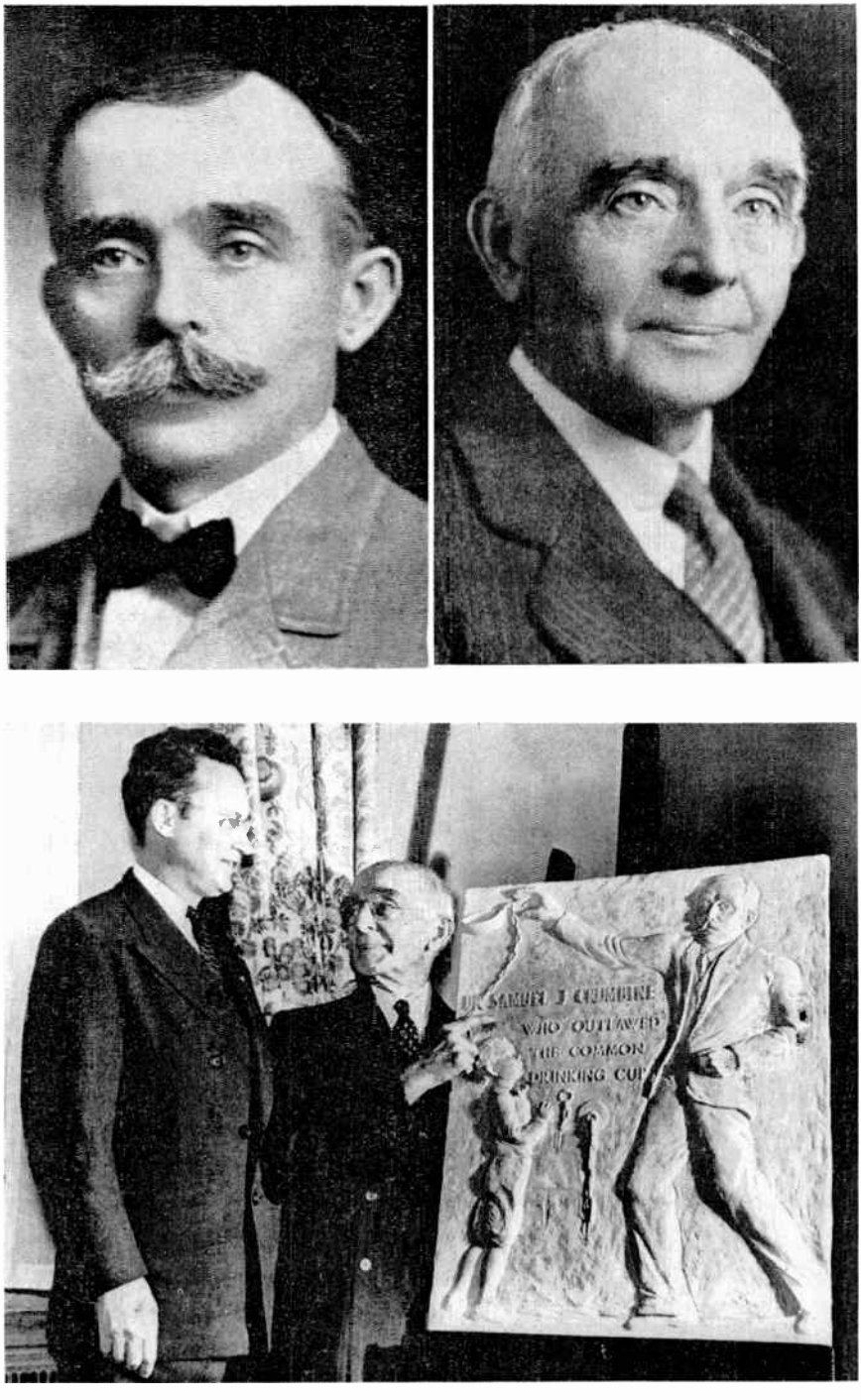
together with several chunks of ice, and nailed the cover back on the tub. This tale sent Crumbine to the express company, one of three in the state which acted as agents for the oyster-shippers. The result was a notice to all three that hereafter sending oysters by tub, refrigerated by ice in the tub, would be considered adulteration. Now they must be put up in sanitary containers with ice packed *around* the containers. A by-product of this experience was an extended research on whether a trace of copper found in the oysters was indigenous or represented adulteration. Professor J. T. Willard of Kansas State College was sent east to observe the oysters in their native habitat and found the copper was normal, not artificial. A minimum standard for oysters, to be copied across the nation, was then established by the Board.[13]

So popular was his work in enforcing food and drug laws that the legislature in 1909 put upon Crumbine's shoulders the additional responsibility of enforcing laws affecting weights and measures in the state. Incredibly, he was also given responsibility that same year for making sanitary inspection of all the hotels in Kansas. Again came the familiar stages of education, guarded threats, and final rigid enforcement. Papers as far away as New York copied the story of his determined statement after closing two unco-operative hotels. "I have closed one hotel in Clay Center and one at Jewell City," reporters were told, "for failure to comply with the law. The place at Jewell City was the only one in town, but it made no difference. I play no favorites, and rather than have the law ignored I would close down every hotel in the State." His flair for favorable publicity also brought the people down heavily on his side in his drive to rid the state of dishonest weights and measures. "EVERY KANSAS STORE SCALE TO BE TESTED" was the headline over a story of how Crumbine saved the people of Kansas one million dollars in 1909. Specific figures were given:[14]

Kansas City Medical College
Courtesy of the Kansas Medical Society



Kansas Medical College, Topeka
Courtesy of the Menninger Foundation



Above: S. J. Crumbine, M.D., in earlier and later years
Below: Dr. Crumbine with Payne Ratner at a dinner given by the Kansas Society of New York in honor of Crumbine in November, 1942
Courtesy of the Kansas State Historical Society, Topeka

Squeezing water out of oysters	$100,000
Stopping short weight flour sales	500,000
Stopping short weight butter sales	150,000
Forcing honest weights on other provisions and drugs	150,000
Stopping sale of dirty potatoes	100,000

Here was a man getting more publicity than the governor himself by 1909! People began to talk about him, mention his name for political office, inquire about his background. They discovered he had been born in Venango County, Pennsylvania, of a soldier-father who was to die a prisoner in Libby Prison. Reared by his grandmother, he was educated at a nearby soldiers' orphan school. After a stint as a drugstore clerk and general handyman, he had studied medicine with a preceptor and then worked his way through the Cincinnati College of Medicine and Surgery. Then he had come to Kansas, where he practiced in Dodge City for sixteen years before becoming secretary of the Board of Health. Contemporary and later accounts agree that in the years of his great triumphs he was a rather short, slight man with thinning gray hair. His eyes were kindly and twinkling, or so his friends thought, and shone out from under bushy eyebrows which complemented his equally bushy moustache and made him a cartoonist's delight. A reporter found him calm, friendly, and affable with a soft quiet voice. One woman remembered him as a "dignified little man." He apparently never fussed or fumed or tore his hair in anger, despite monumental provocations. "He don't ask you to obey him," wrote the reporter; "he asks you to obey the law."[15]

People were never neutral where Crumbine was concerned. No man could have achieved so much without making enemies. Yet the range of his support was remarkable. He carefully abstained from politics, a fact which strengthened his position in the legislature. No secretary has enjoyed so much backing from the press. In an editorial of 1908 the *Lawrence Daily Journal*

summed up well the reasons for his popularity: "He certainly has been useful to Lawrence and he is not going to play favorites. Kansas needs a man who flies about doing his duty wherever he finds it and it finds that kind of a man is Dr. Crumbine." Another paper the same year admired "his quality of keeping everlastingly at it, and sparing none," and added that this "makes Dr. Crumbine deserving of all praise." In Emporia, William Allen White had no end of fun with the colorful Crumbine. "Dr. Crumbine is still busier than a monkey with the itch," wrote White. "His latest announcement is to the effect that grocers who sell adulterated coffee will be burned at the stake."[16]

Yet there were enemies. Patent medicine manufacturers fought the labeling provision in the law of 1907. Druggists and country editors sent telegrams to the legislature paid for by the drug firms. Pressure was put on Governor Hoch to relieve him, but the Governor stood behind him. Some threatened lawsuits; others tried bribery; after the Crumbine revelations about ginger snaps a Chicago manufacturer blasted him in the newspapers. Victor Murdock and the *Wichita Eagle* were after Crumbine's scalp for unexplained reasons. "We note," wrote Murdock, "that the State Board of Health graft, for some inscrutable reason, still survives to annoy innocent and healthy people, and that its secretary, Doctor Crumbine, is much in evidence with his dictums, behests and mandates in restraint of trade."[17]

A change of state administration in 1913, this time to Democratic, brought Crumbine his severest test. The usual wholesale charges and investigations of the outgoing administration's conduct of public institutions followed. Crumbine was pilloried by the incoming Democratic spokesmen, old antagonisms to the Board of Health were revived, and food adulterers and drug moguls saw their chance for revenge. The campaign was led by Mike Frey, a Democrat from Junction City, who was himself a representative of a preserving firm found to be filthy by the Board of Health. His brother had also been arrested at Crum-

bine's order for conducting an unclean lunch counter. The first move was to reorganize the Board of Health and staff it with businessmen friendly to the wholesale food and drug interests. A delegation from the Kansas State Bottlers' Association was present to urge action in this or any direction which would depose Crumbine. When this failed, Frey introduced a resolution to investigate Crumbine's conduct of the Board. He was specifically charged with wasting money on useless supplies and junketing trips east, and drawing more salary than he was entitled to. This resolution was defeated but revived when word came that Crumbine wanted a thorough, public investigation.

Crumbine turned the investigation into a personal triumph. Support mounted from the press, clergy, medical societies, hundreds of citizens, a surprising number of grocers and druggists. The *Merchants' Journal* carried an editorial saying there was "ample ground for convicting Dr. Crumbine of good management." William Allen White was angry. "That's the worst of politics," he wrote. "No matter how highly a man may distinguish himself for efficiency and devotion to the public service, he must expect attacks from pinhead politicians who want to attract a little attention. Crumbine has done more for the good fame of Kansas than all the one horse politicians the state ever grew." On the eve of Crumbine's appearance before the investigating committee, a Wyandotte weekly carried these lines, with an apology to Rudyard Kipling:

> What are the blow-flies buzzin' for?
> said Files on Parade.
> They think they're turnin' Crumbine out,
> the Color Sergeant said.
> What makes 'em seem to gloat and gloat?
> said Files on Parade.
> They think they've got 'is bloomin' goat,
> the Color Sergeant said.
> They're investigatin' Crumbine, you can hear
> the Dead March play,

The Committee in the State House it
investigates today.
They want to take his glasses off an'
tear his eyes away.
They're investigatin' Crumbine in the mornin'!

One by one the charges of Mike Frey and his cohorts were exploded. Crumbine's "junket" to Portland, Maine, was approved by the legislature, and his visit there had culminated in his election as president of the American Association of Food, Drug and Dairy Officers. His increased salary (to $4,000) had also been specifically approved by the legislature. When Taylor Riddle, Frey's henchman and spokesman, came to the charges of waste the investigation broke up in laughter and ridicule. "Here, Doctor, is an interesting item. Can you explain to the committee why the board of health spent the state's money for a phonograph?" Clearly Frey and Riddle regarded this as their clincher. Crumbine patiently explained that the "phonograph" was a dictaphone which saved the State another stenographer at $900 a year. "Now that you have explained that," thundered Crumbine's antagonist, "perhaps you can explain to this committee the meaning of this item. It shows that you spent the state's good money for a shaving set—a shaving set. Now can you explain that?" Then Crumbine administered the *coup de grace*. The "shaving set" was used to shave the dictaphone records so that they might be used again!

Crumbine and his department were completely exonerated. Democrats joined Republicans in refusing to have anything to do with so patent a hoax. Letters of congratulation flowed in to the Board of Health. No voice was raised against the decision. Character and merit had for once triumphed over politics. The victory held for another decade until finally even Crumbine would forsake Kansas rather than try to ride out another great political storm.[18]

But we are ahead of our story. With the battle for pure food

nearing victory, Crumbine had long since channeled his energies into new campaigns. Before 1910 the memorable campaigns against Kansas houseflies, rats, common drinking cups, and roller towels had all been fairly launched. Progress had been made in sanitation; the Board was inspecting all new water and sewage plants; and the long fight against the White Plague of tuberculosis was under way.

Best known of all the Crumbine crusades was his combat with the common housefly. In the background was the brilliant success of Walter Reed and his co-workers in pinning responsibility for the devastating typhoid fever epidemics of the Spanish-American War upon the common fly. The idea that flies might carry disease was thus very new and had made no impression upon the popular mind. Children were taught to be kind to living things, including flies. Imagine the consternation of today's parents if their youngsters came home repeating this rhyme from a 19th century reader:[19]

> Busy, timorous, thirsty fly,
> Drink with me, and drink as I;
> Welcome freely to my cup—
> Wouldst thou sup, come sip it up.

Before Crumbine lay the task of overcoming the ingrained attitudes of a lifetime. Apathy, even outright opposition, met his early efforts. One angry citizen wrote Crumbine that "house flies never bite so don't introduce pizens rather draw it out which is the right way." He offered to eat a quart of flies if Crumbine or someone else would give $1,000 to an orphans' home. Crumbine mapped his strategy carefully. First must come education, then suggestions for eliminating flies from homes and stores, finally the destruction of breeding places. He wrote to the Library of Congress and the United States Public Health Service in 1905 for literature on the history and life-cycle of the fly, its habits and breeding places. Then the first phase of the battle opened. A Fly Bulletin giving all known information on

flies and their danger was widely distributed; a four-page leaflet on the fly was put into all outgoing letters for years; the fly was the subject of large posters displayed in every post office and public building in the state.

The second phase was more difficult. Screening was rare and even fly-swatters were unknown. But Crumbine rose to the challenge. Across the front page of his Fly Bulletin in giant letters were the words "SWAT THE FLY." Newspapers took up the cry; it spread across the United States, to England, Australia, and the remote corners of the globe. Crumbine became famous overnight. Legend has it that this memorable slogan came to him while watching a baseball game. "Crumbine-isms" were now eagerly sought after by newspapermen: "The only good fly is a dead fly," "Swat the fly and save the baby," and a hundred others. Recipes for fly-paper were printed in the popular health *Bulletin,* which he started in 1905. One day came a letter from a schoolteacher at Weir City, Frank H. Rose, who asked if his Boy Scout troop might help in the fight against flies. An amazing development followed. A clean-up campaign was staged under Rose's direction. The town was divided into districts with groups of Scouts armed with rakes, hoes, and shovels in each district. Wagons were provided by the town fathers to haul away the garbage, manure, and rubbish. Fly traps were placed all over town and Rose even got the Scouts to write essays on the fly and its dangers. But most significant of all, the ingenious Rose constructed "fly bats" by tacking wire screening onto yard sticks begged from a local druggist, and the fly-swatter was born! To Crumbine's knowledge—and no one in America knew more about killing flies—these were the first fly-swatters used anywhere.[20]

The final stage called for every town in Kansas to pass an anti-fly ordinance. The Scouts of Weir City had appeared before the city council there and lobbied successfully for the first such ordinance in the United States. A model ordinance was now pre-

SEVERAL REASONS WHY FLIES SHOULD BE UNWELCOME GUESTS.

SWAT THE FLY!

From the *Kansas State Board of Health Bulletin*, February, 1912; courtesy of the Kansas State Historical Society

pared, requiring every breeding-place to be screened, covered, or destroyed.

Crumbine and his supporters pushed the anti-fly campaign in a hundred other ways, many of them ingenious. Club women throughout the state received packets of cards with this inscription: "Flies carry unnamable filth to food. I counted . . . flies in your place of business. Date . . . Customer . . . ." These were to be filled out and mailed by the ladies whenever necessary. Equally ingenious were the bounties offered by health officials for pecks of flies brought in by children. At Hutchinson, a cupful of flies bought a ticket to the local amusement resort, a hundred flies were worth an admission to the moving-picture show, and other prizes were offered at summer's end for the biggest fly-killers. No child growing up in this generation would be likely to share his drink with the "timorous, thirsty fly."[21]

From fly-swatting Crumbine moved easily to an attack on the rats of the state. "After swatting the fly with unabated vigor and enthusiasm," said the admiring *Topeka Capital* in 1914, "and teaching most of the civilized world to swat likewise, [Dr. Crumbine] has started a new warfare in the interest of health and public economy. Yesterday he suggested a nation-wide crusade against the expensive rodent. Here is a new slogan to encourage the crusade. Bat the Rat!" There ensued another rapid-fire educational campaign with stories of the rat's danger to health and property, Bat the Rat weeks, bounties offered for rat tails, and advice on rat-proofing buildings. He enjoyed his usual good press. "KANSAS SPENDS FOUR MILLIONS ON RATS SAYS CRUMBINE" read a *Capital* headline of 1914. Whether or not his campaigns slew many rats or flies, his genius as an educator in public health must be unquestioned.[22]

It was as difficult to keep one's eye on all the Board's activities at once as to watch all the gyrations in a three-ring circus. Before the war on flies had gone very far, Crumbine had also taken up arms against the common drinking cup and the com-

mon towel. As early as 1907 the Board of Health *Bulletin* had warned of the diseases which might be transmitted by the common cup. There followed two years of painstaking investigation. Marshall Barber was sent to Union Station in Kansas City, Missouri, where for one week he took swabbings from the lips of cups and glasses of all trains entering the station from Kansas. He also visited a number of public schools in Kansas and collected samples. Barber, together with Professors Bailey, Sayre, Marvin, and Hoad of the University of Kansas and Professor Willard of Kansas State College, played an important role in a number of these early Crumbine investigations.[23]

One final question must be answered. Would the railroads resist an order abolishing the common drinking cup? An inquiry brought affirmative answers from all but one, which promised compliance if all others obeyed. On September 1, 1909, a Board rule barring the common cup on all trains passing through Kansas became effective. Again Kansas led the nation and the nation followed. The ban was extended to schools and all public places in the state. Surprisingly little resistance was encountered from a public becoming more health-conscious. As usual, Crumbine had a personal story to relate which would press the need for such a ban on even the dullest mind. On a sweltering day in 1907, he related, he had been aboard a train with several "lungers" heading west. Following a long line of tuberculous travelers to the water tank was a tow-headed five-year-old girl, who drank her fill from the single cup provided by the railroad. By 1914 an editorial writer could say that "in the popular mind individual drinking cups, swat the fly, and Dr. S. J. Crumbine are regarded as the Trinity of Health."[24]

A natural corollary to the abolition of the common cup was the banning of the common towel. Once more evidence was collected from roller-towels in hotels and other public places and sent to Professor Barber. In one instance, a case of smallpox was traced to a country hotel where a traveling man had stayed.

From the *Kansas State Board of Health Bulletin*, February, 1912; courtesy of the Kansas State Historical Society

Again Kansas was first with an order in 1911 putting the public towel under official ban.[25]

In another ring of the Board of Health circus steps were being taken to carry out its duty under the Water and Sewage Law of 1907 "to preserve the purity of the waters of the state." Under this law all new water supplies or sewage systems must meet with the Board's approval. This was amended in 1909 to extend the Board's jurisdiction to older water and sewage plants. Here was a difficult and uncharted field for even the experienced sanitarian of 1907. Much research remained to be done if Kansas were to be free of old errors, customs, and superstitions. One of these superstitions, still generally believed, was that running water purified itself every seven miles. Neither Crumbine nor William C. Hoad, who headed the new division of water and sewage at Lawrence, believed this, but evidence was needed. "Tomorrow," read a news item of September 18, 1907, "he [Dr. Crumbine] will begin gathering the official data to lay before the board at its next meeting." This "gathering the official data"

took the form of a painful canoe trip for Crumbine and Marshall Barber down the Kaw River. The River was low, the sun hot, and the wind strong as the two men alternately pushed and rowed the 28 miles from Topeka to Lawrence, taking samples as they went. Professor Barber was ill for two days afterward with severe sunburn and Crumbine "looked like an egg fried on both sides," but they had proved their point. Not in 28 miles, four times the magic figure of seven, had bacterial evidence of Topeka sewage been cleansed from the Kaw.[26]

Then started the patient, tedious process of advising, urging, if necessary compelling cities and towns to install filtration systems and make sanitary provision for sewage disposal. The process was by no means complete in Crumbine's day, but a powerful start was made. An example of what insanitary water meant came to Emporia in 1910 in the form of a severe outbreak of typhoid fever. The *Emporia Gazette* complained in January about the condition of the growing city's water; in July came the epidemic, striking hard at the state normal school there. Crumbine and Hoad hurried to the city. They told the mayor that increasing pollution of the Neosho River made filtration necessary if that source were to be used. "The people of Emporia," wrote William Allen White, "have faith in Doctor Crumbine, and when he says the Neosho river water is unfit for drinking purposes they accept it as true."[27]

Already the Board had begun to condemn any surface water supply which lacked filtration. In 1913 Lawrence was added to the cities forbidden to pump water from the Kaw. From the cities Crumbine looked to rural sanitation in late 1913. A survey of Sumner County, selected as typical, showed widespread contamination of water supplies. "Drinking water supplied the school children at one-fourth of the rural schools in Kansas is absolutely unfit to drink" was the Board's conclusion. Crumbine also moved against communities which were slow to install modern sewerage. By 1914 Kansas ranked sixth nationally

in the number of towns with sewers and fourth in the number of towns with sewage treatment plants. Certainly a creditable record in view of the state's late start![28]

More important was the fall in typhoid fever mortality. A campaign to vaccinate Kansans against this fading killer was begun in 1915, with the vaccine made available at cost to those who could not afford it. For years this disease had claimed about 350 lives every year in the state. But better water and vaccination forced this figure gradually down to 107 by 1922, the last full year of Crumbine's tenure.[29]

One unrealized dream of Crumbine's was to rid the Missouri River of its cargo of sewage. Unfortunately, sanitary authority over the river's course lay in the shadowy No Man's Land between federal and state authority. In Kansas City, Kansas, the situation was serious. Lacking sufficient water from wells, that city was tapping the river water polluted by large cities upstream. Crumbine took the initiative in calling the chief health officers of Iowa, Nebraska, and Missouri to a conference at Kansas City, Missouri, in 1915. Agreement was reached at that meeting that within a specified time all Missouri River cities should stop discharging untreated sewage into the stream. But only Kansas had assumed the sanitary control over its waters which would make the agreement enforceable. Other states were helpless when their river cities refused to move in face of the huge expense involved.[30]

Crusades enough for a lifetime have already been recounted, yet there were still others. "News of a day seems incomplete," wrote one editor, "unless it chronicles some new crusade that has been started by Dr. S. J. Crumbine, secretary of the state board of health." In this case the new crusade referred to was against tuberculosis. Though less immediately successful than his other campaigns, his pioneer work kindled a great effort in the next half-century to reduce the number of victims of this great White Plague.[31]

Physicians of the state were asked by the Board of Health in 1906 to co-operate in a census of tuberculosis cases. Already a sanitarium was foreseen when these statistics were presented to the next legislature. Doctors had been long concerned with this disease, and most were happy to co-operate in any venture which promised a step forward. The Kansas Medical Society had already established a Committee on Tuberculosis Prevention in 1904 and its *Journal* showed great interest in papers, discussions, and letters from doctors concerning the disease. It was more difficult to arouse the general public, however, which found it difficult to believe that an affliction so obviously related to social and hereditary factors could be readily communicable. Further, the slow progress of the disease and the frequent temporary "recoveries" made it difficult to educate public opinion on the dangers of tuberculosis. Yet in 1908 just under a thousand Kansans perished at the hands of this deadly killer.[32]

In 1908 Crumbine headed the Kansas delegation to the great International Congress on Tuberculosis held in Washington. Here was a magnificent opportunity to learn and observe. All the famous men in tuberculosis work—Koch, Calmette, Trudeau —were there. Upon his return to Kansas, he got Governor Hoch to call a state-wide meeting for the purpose of organizing a Kansas branch of the National Association for the Study and Prevention of Tuberculosis. In his accompanying letter Crumbine warned that over 5,000 Kansans were already suffering from the disease and if heroic steps were not taken, 50,000 Kansans then alive would fall to this plague. Twenty to twenty-five persons were expected at the meeting in Representative Hall in Topeka. To the surprise of everyone, the hall was crowded to hear Governor Hoch make a strong appeal for the new organization. He gave credit for the initiative behind this new crusade to Dr. Crumbine, who was elected first president of the new organization. Chancellor Frank Strong of the University of Kansas served as the first vice-president.[33]

So another great campaign was inaugurated. Typically it began with a traveling tuberculosis exhibit which drew crowds numbering in the thousands. Ten thousand people saw it in Emporia alone. It contained material from all parts of the country, some even from Europe. Two sleeping chambers, one dark and dirty, the other light and sanitary, were contrasted. A model dairy was displayed. A stereopticon threw lantern slides on a large screen. Some were pictures of Kansas towns honored for their cleanliness; other towns were shown for contrast in all their ugliness. A lecturer, Dr. S. C. Emley, from the medical faculty of the University of Kansas, spoke to physicians and gave consultations in tuberculosis cases. The first public health nurse in the state, Miss Laura Neiswanger, also accompanied the exhibit, giving talks to the general public and to women's and children's groups. Two interesting aspects of this exhibit stand out in retrospect. This was the first time that a large appropriation ($20,000 for two years) was given for preventive or educational health work alone; and Miss Neiswanger was the first graduate nurse in Kansas whose primary function was disease prevention, rather than cure of the sick. Both of these facts were the visible symbols of a vast change coming over public health work in Kansas. In the light of Crumbine's skillful use of education and publicity no legislator could now be unaware that the old proverb, "An ounce of prevention is worth a pound of cure," had its application in public health as well as other areas of endeavor. No longer would legislators scramble to take a "cholera fund" from a helpless Board of Health.[34]

Following education came action. Tuberculosis was made a reportable disease; pure milk became the cry of health officers and a hundred thousand mothers; anti-spitting ordinances were promulgated throughout the state. A Topeka brickmaker began cutting "Don't Spit on the Sidewalk" into bricks. The demand for a state sanatorium, strongly backed by the doctors of the state, became too insistent to be denied. In 1915 the first

patients were admitted to the new sanatorium at Norton. From the first this sanatorium, like the asylums, could not meet the heavy demand for admission. Superintendent C. S. Kenney reported in 1920 that there were 10,000 cases in the state, yet he had fewer than 100 beds at his disposal. Not until 1926 was a children's pavilion added. Treatment, for the most part, consisted of the rest cure; pneumothorax equipment was added in 1920. A few beds were available at the municipal sanatorium in Topeka, opened in 1916.[35]

From Crumbine leadership in the tuberculosis crusade in Kansas passed to Charles H. Lerrigo, Crumbine's successor as president and later executive secretary of the Kansas Tuberculosis and Health Association (the later name of the anti-tuberculosis organization). Born in England, trained in a homeopathic medical school, Lerrigo had come to Topeka in 1901. He was a member of the Board of Health and a volunteer worker in the anti-tuberculosis movement from the first. Author of a dozen books, several of them fiction, he was a mighty force in the later stages of the tuberculosis drive.[36]

In 1916 Lerrigo and Crumbine co-operated in one of the most successful health education programs in the history of the state. Together they planned the design of a public health railroad car, which toured the state in the interests of public health, sanitation, and help for the tuberculous. Named "Warren" for Crumbine's son, who died during the First World War, the car made a number of journeys over the state, attracting large crowds everywhere. Later it was used once more for a child hygiene campaign.[37]

From a peak in 1913 the number of deaths from tuberculosis began to drop slowly but steadily. Each year saw a slight improvement. By 1923, when Crumbine left office, he could well have been gratified with figures which revealed a 35 per cent decline. Progress had been slow, painfully slow, but tuberculosis was a stubborn fighter that yielded not an inch to its ad-

versaries without a grim fight. A third of a century later the battle would not be completely won.

One might have thought that leadership in a dozen vital health campaigns would have convinced his contemporaries that Crumbine had his hands full at the Board of Health office. By 1910 the one room and typist which he had inherited had grown to half a wing on the first floor of the State House, with thirty employees. His force now included a bacteriologist, three tuberculosis exhibitors, six food and drug inspectors, five stenographers and office workers, nine analysts, a sanitary and civil engineer, three assistants for sanitary inspection of water, and an expert in bacteriological analysis of water. Yet, incredibly, in 1911 a University of Kansas deeply concerned over its fledgling medical school asked him to become dean of the School of Medicine. More incredibly, he accepted.[38]

Six years earlier, in 1905, the long, steady climb of the University toward a full medical course had reached its climax. Simeon Bell's earlier gift of land to the University was increased by another $25,000 in property. The difficult decision was taken to divide the Medical School and the University by building a hospital at Rosedale, across the Kansas River from Kansas City, Kansas, where the clinical instruction of the last two years in medicine might be given. The time was ripe, announced Chancellor Frank Strong, "to establish the best medical school between Chicago and San Francisco." Overtures were made to all the leading medical schools of Greater Kansas City and Topeka to join forces in this venture. The largest schools, the University Medical College of Kansas City, Missouri, together with Topeka's Kansas Medical College (since 1903 the Medical Department of Washburn University) refused. But three others accepted: the Kansas City Medical College and the Medico-Chirurgical College, both in Missouri, and the College of Physisicians and Surgeons of Kansas City, Kansas.[39]

Only faith and resolution sustained the Medical School in these first six years. From the legislature came only lukewarm support. From the physicians of Topeka and Wichita there was only indifference, even outright hostility in some cases. And no Kansas physician relished the knowledge that three-fourths of the faculty of his new state school lived in Missouri. "Surely it would take but a whiff and a blow to make the institution a Missouri one entirely," said the journal of the Wyandotte County doctors in 1906. Yet from the Missouri side came more opposition and a drive to keep University of Kansas clinics out of the new city hospital there. Facilities were pitifully inadequate, even after the Eleanor Taylor Bell Memorial Hospital was opened in 1906. And enrollment fell off precipitously after an initial rush to the new school.[40]

In 1911, the year of Crumbine's appointment, the new Medical School was at the crossroads. George Hoxie, dean of the Rosedale departments in these pioneer years, had resigned in discouragement two years earlier. The Kansas legislature had cut the annual appropriation for the Rosedale institution to a pitiful $35,000. Dissension among the faculty was rife. Much of it centered around Hoxie's co-dean at Lawrence, Mervin T. Sudler, a Johns Hopkins man who insisted on high standards for admission and promotion of students. Then, in 1910, came a blow which could not be ignored. In that year Abraham Flexner of New York published the report on American medical education whose ringing phrases and documented charges reverberated across the nation. The School of Medicine of the University of Kansas, Flexner told his readers, was for all practical purposes "two half-schools." While the scientific departments at Lawrence offered competent instruction, the school at Rosedale suffered from inadequate facilities, a scanty budget, and its isolation from the University. No administration, let alone a divided one, could exert authority over unsalaried practitioners who gave only a small fraction of their time to the school. The

University of Kansas, concluded Flexner in a letter to George Hoxie, had failed properly to organize and support its medical school.[41]

These were serious charges indeed. Overlooked was the even harder blow dealt to the other schools in Kansas City and Topeka. Virtually all of the schools in Greater Kansas City Flexner described as "utterly wretched," while the Kansas Medical College in Topeka he found close to death. Of the Topeka college he wrote that "the dissecting room is indescribably filthy; it contained . . . a single, badly hacked cadaver, and was simultaneously used as a chicken yard." Bearing the full endorsement of the Carnegie Foundation and the American Medical Association, this Flexner Report helped precipitate the changes it predicted. A rash of Kansas City colleges went to the wall, including the University Medical College, oldest of the surviving proprietary schools. In 1913 Washburn University also closed the doors of its medical school, which was now absorbed by the University of Kansas School of Medicine. The editor of the Washburn College *Bulletin* composed the most charitable epitaph possible for these pioneer schools: "This closes an honorable history, but one which will never again be possible. Conditions of medical instruction have absolutely altered, never to be as before."[42]

But what of the University of Kansas? And Dr. Crumbine? Chancellor Strong was convinced that a complete re-evaluation of the Medical School and its place in the University was necessary. He sought first the co-operation of the Kansas Medical Society, which appointed a committee to confer with him. Likewise, Dr. Crumbine was asked for and gave his opinion on the needs of the school. From the outset it was clear that considerable hostility to the location of the school in Rosedale or Kansas City still lingered. Some feeling existed that the clinical years should be abandoned altogether as a failure. One doctor spoke for many at a crowded House of Delegates session of the Kansas Medical Society in 1910 when he said, "If they want

the co-operation of this society they had better get rid of the Missouri men and get Kansas men. . . . It must be demonstrated whether it is a Kansas School or a Missouri School." Strong sentiment for removing the school to Topeka was apparent in some quarters.[43]

The situation was desperate. Doctors, legislators, editors, outside experts like Flexner were all agreed that action was necessary, but what action? A happy thought struck Chancellor Strong. What man was better known to medical men outside Kansas than Dr. Crumbine? Who would command greater respect? What man was more likely to heal the growing breach between the medical profession and the University of Kansas? Was there a better choice so far as political and legislative support were concerned? And who would not applaud a move to tie the University's medical school to the popular State Board of Health?

Ties between the Board and the School of Medicine were already close, thanks to the policy of Crumbine and Chancellor Strong of co-operating wherever possible. Much of the bacteriological and sanitary work of the Board had had its birth in laboratories at the University of Kansas. Dean Sayre was Director of Drug Analysis for the Board; Professor Bailey was Director of Food Analysis; and the professor of physics was State Sealer of Weights and Measures. These relations had all been voluntary. "During my nineteen years as Executive Officer of the Board," wrote Crumbine years afterward, "these relationships were unmarred by a single disagreement of any importance that was not quickly and easily adjusted." Other benefits were to flow from the close co-operation of Board and Medical School in the years after 1911. In his first year as dean, for example, Crumbine inaugurated the first annual postgraduate course for health officers in the United States. Thirty-eight physicians attended the first course in the summer of 1911, which included laboratory exercises in Snow Hall, as well as lectures on bacteriology, chemistry,

entomology, and sanitary engineering. In 1914 the course was moved to Bell Memorial Hospital and radically altered to appeal to the general physician. Clinics in surgery, medicine, and other subjects were held in the morning hours, and laboratory work in such techniques as blood examinations and Wassermann tests was carried on in the afternoon.[44]

Crumbine's appointment as Dean of the School of Medicine in 1911 was widely applauded. Typical of the many favorable newspaper editorials was that of the *Hutchinson News,* which declared that "no one man in Kansas possesses all the necessary qualities equal to Dr. Crumbine." But in actuality Crumbine's appointment meant less than the newspapers and politicians thought. From the first it was understood that Crumbine would remain in Topeka as friend, lobbyist, and last court of appeal for the Medical School. It was never envisioned that he should take over the day-by-day administration of both Medical School and Board of Health affairs. He was, in fact, rarely seen at the Medical School but spent most of his time in Topeka, where, according to Professor Wahl, "he was especially valuable to the University when the legislature was in session." He was later chided by William McVey, editor of the *Journal of the Kansas Medical Society,* for being nothing more than a "figurehead" in building up the prestige of the school. "While the Secretary of the Board of Health has proven his efficiency in that capacity," wrote McVey, "he has added no lustre to his crown of glory as Dean of the Medical School."[45]

Actual rein over the School was held by Associate Dean Mervin T. Sudler. A professor of anatomy in Lawrence, he was now given the responsibility for reorganizing the work at Rosedale. A decision had been made not to move the clinical departments to Lawrence or Topeka, as some critics had wanted, but to keep them at Rosedale. A campaign was begun instead to enlarge the hospital and teaching facilities there and win an appropriation for paying salaries to teachers in the more im-

portant of the clinical departments. One of Flexner's pointed criticisms had been that the professor of pathology was forced to "eke out a living," as he put it, outside the University.[46]

But any campaign involving increased expenditures faced tough sledding. Even Crumbine's Board of Health budget was reduced following his "investigation" in 1913, and the Medical School fared little better. Every effort to strengthen the Medical School at Rosedale, moreover, threatened to dash the hopes of diehard champions of Topeka and other cities, and provoked new resistance. Simeon Bell learned on his death-bed in 1913 that the Commercial Club of Topeka and other organizations were pushing the legislature to remove the School to Topeka. A week before his death he wrote a friend: "Knowing that I am nearing the other side, I earnestly ask that the legislature of 1913 finally and for all time so settle the question of the location of the Medical School that I may, with an unshaken faith in the people of my state, die in peace."[47]

His wish was not granted. For another decade the question of the final location of the School remained unanswered. Nor did the legislature appreciably strengthen the struggling School at its Rosedale site. Crumbine's magic touch with politicians and legislators failed almost completely where the Medical School was concerned. Nor was Chancellor Strong, normally popular at the State House, any more effective. In desperation he raised the question before the Ways and Means Committee of the House in 1913, and again in 1915, whether the Medical School should be continued. In both cases the answer was affirmative, but still no larger appropriation was forthcoming. The legislature did approve a new hospital building in 1915, but Governor Capper struck it down. "This school," said the Governor, "graduated ten physicians last year at an expense to the state of $30,000 above all fees and tuition. . . . Certainly Kansas cannot afford to pay from the state treasury $3,000 each for the education of new physicians." One weekly newspaper complimented the Gov-

ernor for using his knife "on the malignant growth known as the School of Medicine and Rosedale hospital." Once more, it seemed, the University's Medical School might go to the wall.[48]

In 1916, in fact, an Efficiency and Economy Committee appointed by the preceding legislature recommended the abolition of the Rosedale plant. The arguments were persuasive. The Medical School was isolated from the University; it faced stiff competition from schools at St. Louis and Chicago; and it was enormously expensive for the results achieved. Furthermore, the Committee reported, "We do not believe that any Legislature will ever appropriate sufficient money to overcome this school's natural disadvantages and give it a hopeful outlook. No lagging school should be maintained." Strong support for the School come from the Kansas Medical Society, however, which agreed to disagree on ultimate location in their unanimity that the Existing School should not be allowed to expire. Chancellor Strong, too, argued strongly for keeping the School alive, challenging the Committee's assumption that Kansas had less need of a medical than a law or liberal arts faculty. By the end of the decade the question of the future of the Medical School had become a warmly debated political issue in Kansas. It was to be resolved only in the violent political upheaval of the early 1920's which would also drive the impregnable Crumbine from the scene of his great triumphs.[49]

It is remarkable how much was accomplished in this atmosphere of hesitancy and tension. Entrance requirements rose steadily from a high school diploma in 1905 to two years of college work in 1909. Another half-year of medical studies was transferred to Rosedale in 1912, leaving one and one-half years at Lawrence. A fifth or interne year was made a requirement for the M.D. degree in 1919. Enrollment reached 131 by 1920. The number of medical graduates sank to about a dozen per year, to be sure, as compared with the 250 or more turned out by Kansas City and Topeka schools in 1900, but they were far

better trained than their predecessors in the practice of modern medicine.[50]

And who would deny the quality of the faculty at Lawrence and Rosedale in these turbulent years from 1905 to 1920? Scarcely a half-dozen medical schools in the country could have counted a faculty which included men of the quality of Lucien Sayre in pharmacology, E.H.S. Bailey in chemistry, Marshall Barber and Noble P. Sherwood in bacteriology, Clarence McClung in zoology, and George Ellett Coghill in anatomy. All of these men were to acquire national, even world-wide reputations in the basic medical sciences. And at Rosedale students would encounter George Gray, already a surgeon of wide reputation, Franklin E. Murphy, a respected and widely traveled internist, and Richard Sutton, compiler of a monumental encyclopedia on diseases of the skin. Students of the history of sport in America may find it of interest that the inventor of basketball, James Naismith, and the father of the Kansas relays, John Outland, were both respected members of the medical faculty during these uncertain years.

It is difficult to evaluate Crumbine's role in the affairs of the Medical School during this dark period. Certainly he was busy with Board of Health campaigns as he had been from the beginning. It is equally certain that he played no direct role in managing the curriculum, policies, or faculty either at Lawrence or Rosedale. We do know that co-operation in research and educational projects, such as the postgraduate school for health officers, became very close between the Medical School and Board of Health during Crumbine's dual administration. How important his part was in winning support for the School, however, staving off its destruction after 1915, or healing the rift with the medical profession the records do not tell us. From what is known of his character, energies, and achievements in public health, it is probably safe to assume that Chancellor Strong's faith in him did not go completely unrewarded.

During his years as titular overlord of the Medical School, Crumbine was carrying on the last of his great campaigns against sickness and death in Kansas. He co-operated with the Kansas Medical Society in a drive to locate and diagnose all cases of cancer in the state during 1914 because of the "alarming" increase in the number of sufferers from this disease. Their goal was to cut the number of cancer deaths in Kansas by one-half through early diagnosis and treatment, but in this, alas, they were doomed to failure. A cancer bulletin was prepared by C. C. Nesselrode, chairman of the cancer committee of the Medical Society, and widely distributed by the Board of Health. We find evidence, too, of a number of public lectures on cancer. At Newton, for example, both Nesselrode and Crumbine spoke to a public gathering of over 200 people in May, 1914. Nesselrode's warning could scarcely be improved upon nearly a half-century later. He told the citizens of Newton that they must not delay consulting a physician in cases of persistent ulcers, sores that do not heal, lumps that do not disappear, and chronic stomach trouble. Delay, he emphasized, was the greatest danger. Despite all precautions, however, the cancer death rate continued to mount, passing 1,000 in 1915 and 1,500 in 1925.[51]

Also in 1914 came the "Save the Baby" campaign which probably saved more lives than any of the great Board of Health efforts during these years. Here was a humanitarian movement which every Kansan, certainly every mother, could be led to support. Two years of careful preparation preceded the opening of hostilities. A circular on the care of the baby was sent to every new mother in the state, beginning in 1912. Then came a dramatic issue of the *Bulletin,* which translated the cold statistics of infant mortality into a single call to action:[52]

> The baby.
> We all love him.
> But do we always protect him?
> We think we do, but figures prove we do not. . . .

Two thousand five hundred white monuments stand in Kansas cemeteries accusing us of negligence and ignorance.

Newspapers took up the cry. What caused these deaths? Crumbine was asked. "Dirty milk and dirty mothers" was his widely reprinted reply. What could be done? His answer was ready. "We can save the lives of babies for two or three dollars each. Kansas spends thousands of dollars to save the lives of its hogs, horses, cattle, sheep and poultry. Why not spend a little to save human lives, especially little lives that cannot make the fight alone?"[53]

It was outrageously simple. His "Save the Baby" pamphlet had been followed by a drop of five hundred infant deaths. Why not stage a real campaign to reach all mothers, provide medical care, send nurses into the homes of the poor and ignorant, and clean up the dairies? Actually, as Crumbine well knew, there were other factors that made the prospects less sanguine than he pictured them; but he believed firmly in the corrupted adage that "faint heart ne'er won a fair appropriation." And money was needed. He did manage to find enough money to send a package of silver nitrate solution to every physician and midwife in the state with encouragement to use it to prevent infantile blindness; and a "Better Baby" contest was held at the Topeka State Fair in the fall of 1914.[54]

But the plans he had in mind would require a large appropriation. He had heard of the establishment by New York State of a Division of Child Hygiene under a noted pediatrician and was determined that Kansas should follow. Favorable newspaper publicity now smoothed the way. A group of Kansas women had already formed a Congress of Mothers to work for Crumbine's program. "It is cheaper to raise children than it is to bury them," Crumbine told the mothers who unanimously backed his plans for a child hygiene division. When legislators took up the proposal in early 1915 they were told that every women's organization in Kansas stood behind it. The force of

sentiment behind the bill was reflected in a statement from the Speaker of the House of Representatives even before its approval: "This new bureau is going to get an appropriation from this legislature sufficient to enable Doctor Crumbine to carry out the provisions of the bill. The few thousands of dollars required are as nothing compared to the saving of the lives of the babies of Kansas that are lost every year from preventable diseases."[55]

Thus Kansas was second among the states to create a Division of Child Hygiene in her Board of Health. A well-known child specialist, Dr. Lydia Allen DeVilbiss, was persuaded to begin the work in July, 1915. A state-wide educational campaign was immediately launched. She spoke to a hundred women's clubs, issued scores of bulletins, sent numerous letters to the press, compiled a famous *Kansas Mother's Book*. Every city was put under pressure to enact a pure milk ordinance. Crumbine laid down what he called a "clean milk decalogue" to be observed by every dairyman. Kansas became the first state to have a child hygiene traveling exhibit. Better Baby clinics were held in a score of cities. The Governor donated a loving cup to be given to the "fittest family" at the annual state fair. Little Mothers' Leagues were organized to teach teen-age girls the responsibilities of motherhood. A number of infant welfare stations were established across the state.[56]

Other states followed. A score of requests for help and advice from Kansas in this field came from all parts of the nation. To Rhode Island and Michigan went Dr. DeVilbiss to give aid in establishing similar programs; Dr. Crumbine was in constant demand as a child health speaker. A half-dozen states adopted the prenatal letter service inaugurated by Kansas; more than a dozen used the *Kansas Mother's Book* as their own.[57]

In 1918 the Board began an intensive survey to uncover children with orthopedic and other defects which might be remedied. The need for such a survey was made clear by such incidents as the following which fortunately were becoming rare:

A school nurse found a badly crippled boy who had to crawl into the schoolroom on his hands and knees; his attendance was necessarily so irregular that he was in a class with much younger children and they made his situation more painful by watching his clumsy efforts. The nurse took the boy home and found that he was in the care of grandparents who were quite opposed to having him taken to a surgeon with view of possible operation. Although protesting they would not consider it because they did not want to "hurt him," they were using his infirmity to gain an income through playing a violin from a wagon in the streets. The nursing association arranged for resort to the courts, which ordered the operation with a stinging rebuke. The twisted body was straightened and the boy was enabled to go on without physical handicap.

In 1920 the Capper Foundation for Crippled Children was founded to give aid to such children and six years later the Kansas Society for Crippled Children was born.[58]

While Kansas health officers and physicians were thus occupied with the war against cancer and infant deaths events were occurring in Europe which would reverberate with mighty effect throughout the whole public health movement. In July, 1914, an Austrian archduke was assassinated by terrorists in the Bosnian capital of Sarajevo. A breath-taking month of ultimatums, mobilizations, troop movements, and hurried diplomacy followed. Then all of Europe, long arrayed into two armed camps, found itself at war. For three years, while Americans watched with mounting interest and emotional involvement, armies fought and bled on the Western Front and in the Eastern marshes and forests. Finally, the German renewal of submarine warfare against neutral and unarmed vessels brought America into the Great War.

Doctors and health officers were among the first to be mobilized in Kansas. So rapid was the rate of enlistment of doctors for war service that many communities found themselves without a practicing physician. An attempt was made to balance the

needs of the armed forces against those of the civilian population, but with less success than in World War II. Medical societies moved to protect the practices of those who were called to military service. Members of the Shawnee County Medical Society went so far as to assess themselves ten dollars a month for making payments to their colleagues in service. Doctors were busy, too, examining men registered under the selective service law. The effect of the war was felt at the meetings of the Kansas Medical Society in 1917 and 1918 where attendance was small, programs short, and papers ran heavily to military surgery. There was great concern, too, for the high percentage of draft rejections and the care being received by the civilian population. The Society's *Journal* urged its readers constantly in these years to apply for military commissions.[59]

In all, 649 Kansas doctors saw military duty during World War I. This represented close to half of the membership in the Kansas Medical Society. A considerable number of these went overseas to active war service. At the Medical School, students enlisted in the Medical Reserve Corps of the United States Army and were allowed to complete their studies. Summer classes were held at Rosedale for the first time in the School's history. Requests poured into the Dean's office for young graduates to replace older men gone to war. One town in southern Kansas offered a house rent-free and the use of an automobile for one year as inducements to a young doctor. Hitherto starved for appropriations, the School was now criticized for not turning out enough graduates. A number of the faculty enlisted for service, including William T. Fitzsimmons, the first American to die in combat after the United States entered the War. He was killed in an air raid on a British hospital in France in September, 1917. Instances of the heroism of Kansas doctors at war came back with the news from the war front. Lieutenant-Colonel F. W. O'Donnell of Junction City, for example, won the name of the "Fighting Doctor" for his refusal to remain at division

headquarters when action was threatening; and Dr. George W. Davis of Ottawa became a hero at Vladivostok for his work in stamping out a cholera epidemic there in the summer of 1919. O'Donnell, Davis, and many other Kansas physicians received decorations from their own and foreign governments for their heroism.[60]

Crumbine's state board of health was put under federal jurisdiction for the duration of the war. He was given responsibility for sanitation around the federal military establishments at Fort Leavenworth, Fort Riley, and Camp Funston. His most urgent task was to prevent the spread of communicable disease in the disorder and confusion of war. One group of diseases, in particular, hitherto unmentionable in polite discussion, was on the increase. What could be done about venereal disease? Crumbine determined on a bold line of attack. Why not treat these diseases just as any other contagion by making them reportable under the law, detaining suspects, and quarantining victims until the disease was arrested? Supported by the courts and public opinion, Crumbine ordered local health officers to examine all suspected prostitutes near army camps. Infected women were sent to the state detention farm at Lansing; men were incarcerated at the prison there. A special officer from the United States Public Health Service was detailed to assist in this crusade. This was apparently the first time in any state that those suffering from venereal disease were forcibly quarantined until they were no longer infectious.

But where were the prostitutes coming from? A few inquiries put Crumbine on a trail which led to Kansas City, Missouri. He waited upon the mayor and requested him to arrest all prostitutes and quarantine those who were infected. The mayor was powerless. So were the police. Likewise the courts. The trail finally took him to the office of Boss Tom Pendergast. Armed with federal authority, the little Kansas health officer told the Missouri boss that he would quarantine the city if his orders

were not carried out within seven days. An impressed Pendergast replied that he would need only 24 hours. Then Crumbine addressed an open letter to the city explaining that 50 per cent of all venereal infections in eastern Kansas had been traced to Kansas City women. "DR. CRUMBINE SAYS K.C. IS NAUGHTY!" was the headline in one paper the next day.[61]

Even after the War the drive against social diseases was continued. In 1920 Crumbine sought to get to the root of the evil by commencing a state-wide sex education program in the schools. Letters were sent to the superintendents of 525 high schools urging a social hygiene program. Two former YMCA secretaries were hired to give traveling lectures to boys' groups across the state, and two women were employed to give similar talks to girls. In addition, two pamphlets—"Keeping Fit" for boys and "The Girl's Part" for girls—were made available at all lectures. These were widely reprinted in other states. For three years the program continued with good results but finally succumbed to a gathering storm of criticism and opposition. Though premature, this pioneer attempt at sex education was widely applauded by educators and physicians.[62]

At the very end of the First World War came the most disastrous epidemic in the history of the state. From Europe had come reports of the spread of "Spanish influenza" in the winter of 1917. By spring the first cases were reported on the Atlantic coast. Then it rolled in three massive waves across the country, the first two in 1918, the last in the winter of 1919-20, crushing millions in its course. In Kansas the worst came in the fall of 1918. Scarcely a more inopportune time could have been chosen. Hundreds of doctors and nurses were out of the state on war duty. Thousands of soldiers were crowded together at Camp Funston and the other Kansas forts. All Kansans were working harder in field and factory to win the war. And the Board of Health had been denied an emergency fund with which to fight any epidemic attack.

The scourge fell on Kansas at Camp Funston in September, 1918. On September 26 there were 135 cases, six days later more than 1,100. From Funston the infection was quickly carried to Hays, to Topeka, and to Marysville, and then spread like prairie flames to all corners of the state. At the onset of the invasion, Crumbine issued a pamphlet on the disease, called on the federal government for aid, and requested everyone with nursing or medical training to come forward for emergency assignments. On the 8th of October he barred visitors from all state institutions, schools, and colleges. By the 9th most theaters, churches, schools, and meeting halls were closed, to remain so for weeks. Classes at the University of Kansas were suspended and several fraternity houses at Manhattan were being used for hospitals.

Hospitals were crowded and all but emergency operations postponed. Churches and schools were converted into infirmaries with cots and mattresses from private homes. As the epidemic mounted in ferocity, many doctors, nurses, and volunteers, weakened by lack of sleep, became victims of the contagion. Its onslaught was devastatingly swift. Some died within a few hours, others succumbed to pneumonia or other complications a few days later. By the 15th there were 12,000 cases in the state and near-pandemonium in many communities. Instances of whole families struck down and lacking medical aid were becoming common. Stories of small children found weeping and terrified beside the bodies of their parents were heard. Whole communities without a doctor or nurse were reported. The only doctor in Lenora in Norton County fell ill and telegraphed for help. One doctor in Mulberry was tending 200 patients. By the 18th, according to the Board of Health, not a community in the state was free of influenza.

At the University of Kansas scores of students in army training were stricken. They were put on cots in half-finished army barracks on the campus, only one of which had any roof. Chancellor Strong appealed to Crumbine, who by now was stripped

of all funds and equipment. Crumbine wired Major Leonard Wood at Camp Funston for beds and medical supplies but was turned down because of army regulations. By the end of another week the situation at the University, in Crumbine's words, was "ghastly." A second appeal to General Wood was made, this time backed by Governor Capper. This time he complied, only to be stopped by higher headquarters in Chicago from carrying out this errand of mercy. Word was sent to Senator Charles Curtis, who hurried legislation through Congress legalizing Wood's action in the emergency.

At the military camps, conditions had become indescribable. Hospitals were jammed and barracks and tents were being thrown open to the sick. Medical care was pitifully inadequate. One graphic account declares that "men attempting to evade confinement with the dead and dying lay gasping with the disease in their regular quarters and soon found death all round them, even there. As the tiers of rough pine coffins began to block the platforms of stations near the camps, Kansas newspapers became violent in their criticism of the military authorities."[63]

By the 22nd of October the epidemic had reached its crest, but cases were reported through November and December. The ban against public meetings was lifted on Armistice Day, November 11. Returning surgeons surveying the havoc and the weariness of their colleagues at home might well have questioned which had had the heavier duty. A number of doctors perished at the height of the attack; the exact number is not known. Of one Hill City practitioner it was related that he saw home only once in each twenty-four hours during the epidemic. He would start out on his rounds before daylight, sleeping in the back of his car while a driver took him from patient to patient, and return home about 5 A.M. After a hot breakfast, a change of clothes, and a look at the flu patients being nursed

by his wife, he would start out on another grinding tour of the sick.[64]

Looking back over the scene after the great visitation of influenza in 1918 and in lighter form the next two years, Crumbine reckoned up the toll. More than 12,000 Kansans had lost their lives, more than double the Kansans dead in World War I. Probably a quarter-million people in the state had been attacked by the disease. In one single month—October, 1918—2,800 had perished, a third of them at Fort Riley. The economic loss was staggering, probably well over 100 million dollars. For eight weeks 12,000 Kansas school teachers had been idle. Not less than 10,000 business houses were affected by closing orders and flu bans. Business stagnated. Agriculture suffered, as the attack had come during the harvest season. Perhaps the final word on the influenza invasion was best spoken by J. J. Sippy, epidemiologist for the Board of Health, who wrote: "Nothing to compare with it has ever occurred in this state. Every line of business endeavor has been compelled to absorb tremendous losses. . . . Never in the history of the state were the doctors called upon for such tireless service. Never did the nursing corps of a state give more faithful, tireless, devoted and heroic service than during the days when the epidemic raged in every section of the state."[65]

The influenza epidemic was the last of Crumbine's major battles as secretary of the Kansas Board of Health. Though he was to remain in his post until 1923, the final years were quiet and uneventful, at least by comparison with the hectic earlier period. He continued to work, as he had for years, for full-time local health departments in Kansas but with little success. Geary County became the first county west of the Mississippi River to provide full-time health service in 1919, but the funds came from outside the state, largely from the Rockefeller Foundation. He played a modest role in the formation of the Kansas Society for Mental Hygiene in 1919. More important was

his part in the organization of a Tri-State Sanitary District covering the mining area which spreads from southeastern Kansas into Oklahoma and Missouri. This District was charged with enforcing sanitation and investigating tuberculosis and other health problems in the mining territory. In 1920 he was elected vice-president of the new Kansas Public Health Association, an organization which fulfilled another long-standing dream. In that same year the Board of Health laboratories were reorganized, new space being provided for them at Washburn University. Perhaps his last important campaign was against diphtheria, which was still claiming an average of 200 young lives every year. With the co-operation of Wabaunsee County doctors, a convincing demonstration was given in 1921 of what universal immunization might accomplish. All children in the county were immunized and then closely watched for the next five years. Not a single one of these children contracted diphtheria. In 1922 a state-wide program of immunization was begun, with gratifying results.[66]

What may be said of the health of Kansans at the close of Crumbine's long reign over the Board of Health? We know a good deal more about the disease and mortality rates in this period, thanks to the final achievement of a sound vital statistics law in 1911. Then, too, Kansas was admitted to the United States registration area beginning in 1914, which means that Kansas figures were now considered sufficiently reliable by the Census Bureau for comparison with those of other advanced states. Such a comparison brought forth the striking conclusion that Kansas was the healthiest state in the Union. So low was the death rate in Kansas in 1915 that a special agent was sent out from Washington to check the Kansas mortality figures. During World War I Kansas stood first among the states in having the largest proportion of men physically fit for military service. Furthermore, according to a 1922 report, Kansans lived longer than people in any other state. Life expectancy for Kan-

sas males born that year was almost 60 years, compared with a national average of 54 years. Kansas females, likewise, could expect 61 years of life contrasted with the national median of slightly over 56 years. "Compared to the rest of the United States," Crumbine told reporters, "Kansas is almost a health resort." He cited statistics based on the complete 1917 returns which showed that all the major diseases took a lesser toll among Kansans:[67]

KANSAS AND U.S. DEATH RATES FOR CERTAIN DISEASES, 1917
(per 100,000 population)

	U.S.	Kansas
Heart disease	153.2	112.4
Tuberculosis	146.4	58.6
Bright's disease	107.4	88.6
Cancer	81.6	70.6
Diarrhea and enteritis	79.0	45.3

Why should Kansas be healthier than other states? There were a number of explanations. Certainly the rural, thinly populated character of the state had something to do with it. Then, too, Kansas was still young; the average age of her population was below the national average. And on the whole her citizens had been prosperous despite the drouth and depression of the late 19th century. But certainly some credit was due the skill and devotion of her doctors and the great work of the Board of Health. Better sanitary conditions, widespread vaccination, vigorous preaching of health rules, and leadership in a dozen life-saving campaigns must surely have played a part. One leading health authority, at least, had no doubt of this. In 1922 Dr. Haven Emerson, head of the Department of Public Health Administration at Columbia University, wrote that a record like that of Kansas in public health was no accident "but the result of a long continued policy of constructive education and health service for the people of the state." The "wonderful record of Kansas," concluded Dr. Emerson, had much to do with Kansas' good fortune in having a health officer of Dr. Crumbine's ability.[68]

Yet Crumbine's days as chief health officer were numbered. Within seven months of Emerson's tribute his resignation lay on the desk of the new Democratic governor. In one of the most violent political upheavals in Kansas' turbulent history, every state institution felt the impact of the turnover in political administration. Crumbine was called to Governor Davis' office soon after the latter's inauguration and asked to discharge 40 per cent of his staff, to be replaced by political appointees. Crumbine refused. For nineteen years his staff had been free of direct political interference. He had made all appointments, subject to the confirmation of the Board. Nor were they all by any means Republicans, since no high official in the history of the state was less likely to put politics before qualifications. Then the Governor moved against Crumbine himself, not directly, but by appointing a new Board of Health which would fire Crumbine and elect a new secretary.

Crumbine's first instinct was to fight, as he had done so successfully a decade earlier. He did ask the Attorney General to take the Governor's action in discharging the old Board directly to the State Supreme Court. This was done and the Governor's action was subsequently reversed. In the meantime the new Board had met and timorously refused to ask for Crumbine's resignation. A public clamor unlike anything affecting a state institution before had welled up from all sections and classes in the state. The Kansas Medical Society and every medical and health association meeting in the spring strongly defended Crumbine and denounced the Governor. Civic clubs, women's clubs, Scout troops, and a score of other organizations bombarded the Governor's office with resolutions in support of Crumbine. A Pittsburg man wrote the Secretary that "I confess to genuine indignation that the important places in the state organization are to be made the plaything of a political charlatan." An old friend wrote that he had been in Salina "and everyone there was for you." Three hundred Dodge City women wrote Governor Davis

that Crumbine was "a public health officer of extraordinary usefulness." From O. D. Walker, Board of Health member and former president of the Kansas Medical Society, came a letter to the Executive Mansion warning that "no man one-half of Dr. Crumbine's caliber in Public Health affairs is today looking for a job." He told the Governor that "I like yourself am a native Kansan. I received my public school and University Education in Kansas. I am proud of my state, of her history and her achievements, and among the splendid things that have been done in Kansas and the things that have benefited the state as a whole, nothing stands higher or nearer to each and every person in the state than does the work of the State Board of Health."[69]

But all was in vain. When his own Board members refused to fire Crumbine, an angry Governor called personally for his resignation. For two weeks Crumbine hesitated. Should he stay and fight? Virtually the whole state was now behind him. But what would it mean? Bitterness, acrimony, a court fight, an unfriendly administration. He was 61 years old. How much more could he expect to accomplish in Kansas? And while the Governor of Kansas was trying to fire him, three national health organizations were tempting him with offers doubling his salary or more. On June 5, 1923, Samuel Crumbine gave up the fight. He left Kansas for New York City, where Herbert Hoover had urged him to accept the post of executive secretary of the American Child Health Association. Though he lived almost three decades longer and performed many useful services he never got over his homesickness for Kansas and the feeling that his home lay where he had invested so much of his life and productive energies.

Twenty years after these events another Kansas governor would unveil a bronze plaque at the Capitol showing Crumbine jerking a drinking cup away from its chain while a child looks on. It would carry these words: "Dr. Samuel J. Crumbine who

Science to the Rescue

It Is Reported Governor Davis Intends to Fire "Doc" Crumbine.

Cartoon from the *Topeka Daily Capital*

outlawed the Common Drinking Cup." On another occasion a Kansas governor would come to New York to address a dinner in his honor, while a former governor acted as toastmaster. But during his years in Kansas he was, like all great men, better appreciated outside his own territory than in it. Without question he was for two decades the best-known doctor in Kansas. "If the people of Kansas," a retiring health employee declared, "could attend some of the national public health meetings and hear the expressions of respect and admiration which are applied to Doctor Crumbine, their eyes might be opened."[70]

As it was, every Kansas crusade led by Crumbine had its reverberations outside the state. Virtually every state followed his lead in swatting the fly, outlawing the common drinking cup, and banning the roller towel. His battle against adulterated food won him an appointment as inspector for the United States food and drug department and the presidency of the National Association of State Food and Drug Commissioners. When he turned to Kansas water and sewage problems his notable successes caused the Surgeon-General of the United States Public Health Service to appoint him to a small committee charged with setting a national standard for water purity. His interest in tuberculosis led to a long period of service as a director of the National Tuberculosis Association. When a National Health Council was created in 1921 Crumbine was its first secretary. The vital statistics work done under his direction in Kansas was called by the Census Bureau "the nearest perfect of any state in the Union." It seemed that he excelled in every field of public health which he touched. When he commenced his annual school for health officers he told reporters that "it is the same old story, Kansas leads and the other states follow." His campaign for better child hygiene won him a federal appointment as a United States epidemiologist, which carried a franking privilege that saved Kansas thousands of dollars. And he left Kansas to direct the American Child Health Association.

When he gave battle to prostitutes and venereal diseases, finally, the War Department put him in charge of disease prevention in six western states and made his procedures a model for other areas to attempt to follow.[71]

But Crumbine never had any illusions that he had done it alone. He had been a general practitioner in Kansas for almost as long as he was chief health officer and knew how important was the role of the doctor in the day-to-day war against sickness and suffering. He never moved without the support and good will of the Kansas doctor. No other state health official received such universal support from the medical profession of his state. Nor did he underrate the significance of the public and journalistic support which added strength to his arm in his battles with legislatures, food magnates, and medicine vendors. When he received the highest honor in his profession, the presidency of the Association of State and Provincial Boards of Health of North America, he told his colleagues with some justice that "the office was given to Kansas rather than myself."

Yet why had Kansas given him such support? First and foremost, because Crumbine was the most skillful educator the state has ever known. He made Kansans see almost as clearly as he did why health rules, boards, and campaigns were necessary. For almost twenty years Crumbine played schoolmaster to a classroom which encompassed the whole of Kansas. Like any great teacher Crumbine knew when to warn and when to praise, when to appeal to the state's pride and when to condemn her pretensions, when to use humor and when to be serious. He had the teacher's supreme gift of dramatizing the complex in terms of the strikingly simple. He had a flair for the homely simple epigram which summed up for the common man the lessons drawn from a year of study and investigation. Like his famed contemporary, Teddy Roosevelt, he taught by colorful example and striking precept. Both found exhilaration and satisfaction in the life of action, as well as the life of study and contempla-

tion. Both used gruff threats of force which were balanced by suave diplomacy behind the scenes. Both made of every act of leadership a crusade against the forces of darkness and suffering. Critics could accuse both of raising more smoke than fire, yet both were educators of the people in the best sense of the term. Most important of all, Crumbine had made of the Secretary's post a rostrum to which the people of Kansas now looked for guidance and leadership in all matters affecting the public health.

By the 1920's Kansas appeared prominently on any medical or health map of the United States. Her Board of Health, her doctors, her medical school, her state medical society were all known beyond the borders of the state. Her specialists were called for consultation to Kansas City, St. Louis, and the great Southwest; her researchers were pushing deep into the secrets of the human cell and solving the puzzles of human immunities; her graduates were winning an impressive list of positions in the world of science; and her health officers were known across the continent. Kansas was coming of age in the medical world. The promise of the first half-century had not gone unredeemed.

IV

Storm and Stress (1923-1932)

THE RESIGNATION OF SAMUEL CRUMBINE ushered in nearly a decade of storm and stress, politics and quackery in the medical affairs of the state. The eyes of Kansans were now turned from the great achievements of her doctors and health officers to the seamy spectacle of politicians groping to gain party control over the medical institutions of the state. Dozens of able health officers followed Crumbine out of the state or into private practice. Superintendents and employees at state hospitals were summarily dismissed to make room for political incompetents. Even the Medical School was sunk in a despond of political immobility. The dread insecurity of these years hung like a pall over the Board of Health, the Medical School, and mental hospitals, suffocating initiative and dampening every bold inclination. A few streaks of light broke through the haze in the middle 1920's, when a measure of tranquillity and order was restored and medical affairs were removed from the headlines of state newspapers. But at the end of the decade came a new *cause célèbre* in the form of a Milford quack, magnificent in his pretensions, who succeeded in embroiling politicians, the Board of Medical Examination, the Kansas Medical Society, and the people of Kansas in the most violent political storm ever to swirl about the medical profession of Kansas.

The new era began with a fierce squabble over who should now reign over Crumbine's empire at the State Capitol. Following Crumbine's resignation the old Board of Health, excepting those whose terms had expired, met on the advice of the Attorney General to elect Milton O. Nyberg of Wichita as his successor. Governor Davis then stormed the offices of the Board of Health and claimed the ground for his new Board and its secretary, Dr. Leon Matassarin, also of Wichita. On orders from

the Supreme Court, the offices were now closed for a period of eight days while the Court reviewed the case. Mail began to pile up, all Board business was halted, and over 3,500 births and deaths went unrecorded. On the 16th of June, 1923, the Court made its decision. The Governor had acted illegally in his wholesale removal of Board of Health members. Dr. Nyberg was confirmed as the legitimate heir of Crumbine's mantle.[1]

Applause for the Court's ruling was almost universal. Though the loss of Crumbine was irreparable, stated the *Journal of the Kansas Medical Society,* it would have been worse for the principle to be established that Board appointments were mere sinecures given in payment for minor political service. But the *Journal*'s optimism was premature. Nothing in the Court's decision prevented Davis from filling legitimate vacancies on the Board with men committed to destroying the Secretary's right to hire and fire employees. By May, 1924, the Davis appointees, now a majority, were to adopt a resolution to hire or discharge any employee at the pleasure of a majority of Board members.[2]

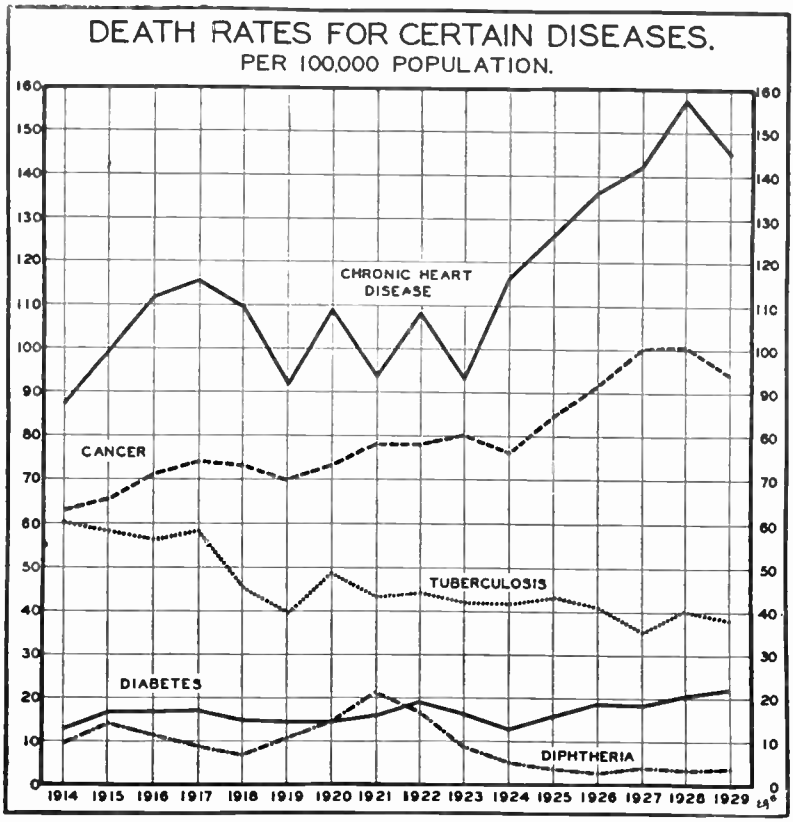
A year-long nightmare followed. The Secretary received instructions from time to time to discharge particular employees and replace them with persons of the Board's choice. Reasons were never given, and notice was always short. Fear and uncertainty mounted among the remaining employees. In all, nine persons were dismissed, including the directors of the public health laboratory and the division of venereal diseases, the registrar of vital statistics, and a food and drug inspector with fourteen years' experience. Then the able state epidemiologist, C. H. Kinnaman, who had come to Kansas from the Rockefeller Foundation, was sacked without warning, this at a time when Governor Davis was seeking a $2,500,000 endowment from the Rockefeller Foundation for the Medical School. He was replaced by a member of the Board who had voted for his own appointment! "The state health department," wrote the Secretary with masterful understatement, "could not function in a normal manner."[3]

Only the defeat of Governor Davis in November, 1924, brought a temporary lull in the political storms wracking the health and medical professions of Kansas. All through this dark decade the Kansas Medical Society and the health officers of the state gave each other full support in the repeated crises which beset both. This close co-operation in the face of outside pressures is reflected in the election of Nyberg's successor, Dr. Earle G. Brown, as president of the Kansas Medical Society in 1926, an honor accorded no other Secretary.

Soon after Davis' defeat the Senate cleared the way for a Board of Health reorganization by rejecting the names of all Davis appointees, none of whom had been confirmed. Governor Ben Paulen then appointed an entirely new board. The outgoing Board had made haste to make amends by rescinding all its political removals. Dr. Kinnaman and others were restored. In its first session the new Board returned to the Secretary his power over subordinates, subject only to confirmation by the Board.[4]

A new Secretary, Earle G. Brown, now began a twelve-year tenure marked by relative peace and calm. At the outset he confronted a forbidding challenge. Morale was low; appropriations had been markedly reduced; the legislature had struck down all full-time county health units by refusing to match funds hitherto donated by the Rockefeller Foundation. Maternity- and child-health work was likewise stymied by the legislature's refusal to put up matching funds under the federal Sheppard-Towner Act. And he had large shoes to fill. Yet it is a measure of his achievements that by the end of his term of office he had brought Kansas back to the front rank of public health work. He was blessed, too, with an exceptionally able and vigorous Board president during much of his tenure in Dr. Clarence A. McGuire. Both were popular with the medical profession. McGuire, too, was a former president of the state medical society. Together they made a formidable team.[5]

Most notable of the Board of Health efforts under Brown's direction were a sustained drive against diphtheria and some pioneer statistical work in home and automobile accidents. Kansas already ranked first among the states in 1925 for the lowest diphtheria death rate in the United States, but it was Brown's ambition to eradicate the disease completely. A score of physicians pledged their aid in a drive to immunize every child in Coffeyville against diphtheria in 1926. By 1928 the campaign had spread across Kansas and brought immunization to 275,000 children. Steadily the number of deaths from diphtheria dropped from 151 in 1923, to 49 in 1926, to 24 in 1937. In Wichita alone,



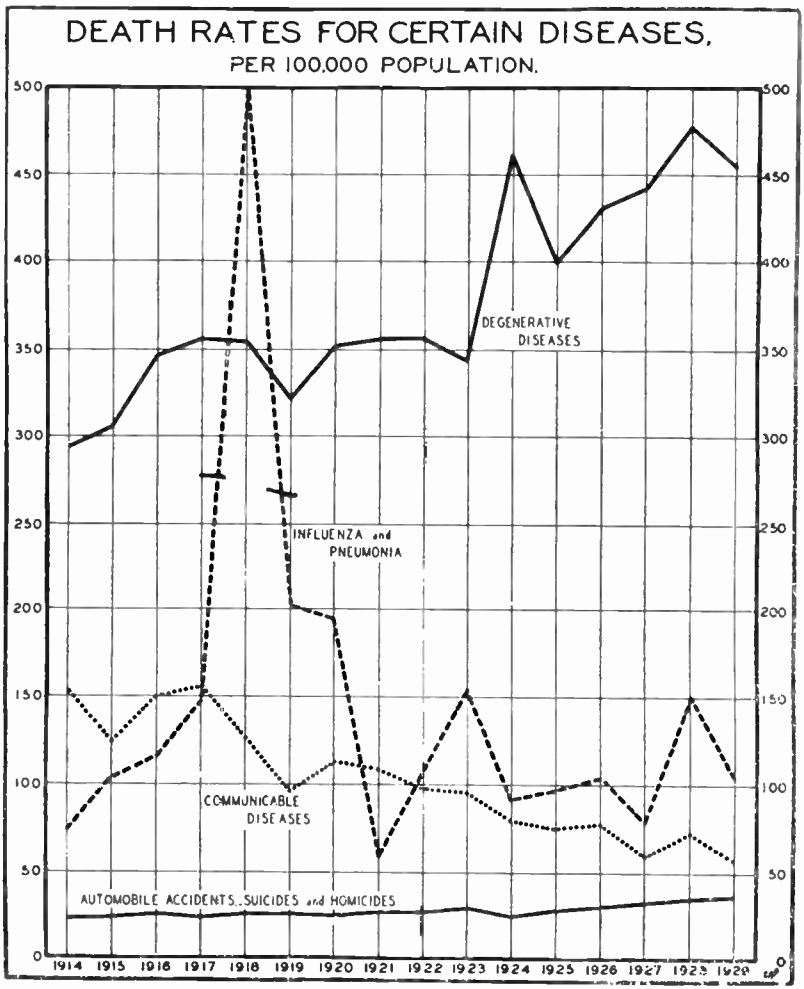
From the *Fifteenth Biennial Report of the State Board of Health* (1928-30)

children dying of diphtheria declined in number from 46 to 5 during the 1920's.[6]

The near victory over diphtheria made the conquest of the communicable diseases almost complete. Among the ancient killers, smallpox and malaria had virtually disappeared, typhoid and scarlet fever had now been brought under control, measles and dysentery took very few lives. Only tuberculosis and pneumonia continued to rank high among the diseases most dangerous to life. But they, too, were on the decline. Pneumonia claimed 1,833 lives in 1932 compared with 2,185 in 1916, while deaths from tuberculosis had dropped from 970 to 622 in the same period. More dangerous than either were such formidable new killers as cancer, heart disease, and nephritis. These were not in a sense new diseases, of course, but their rising toll of human life was new and frightening. In 1932, while pneumonia and tuberculosis took 1,833 and 622 lives, respectively, cancer could now number 2,057 persons among its victims, nephritis 1,907, and heart disease 3,425. Worst of all, these figures were steadily climbing. In part, this increase was due to better reporting and diagnosis, but chiefly it was the result of the conquest of the communicable diseases. The smaller the number who died in infancy and childhood, the larger the number to survive and fall victims in later years to these "degenerative diseases."[7]

There were other causes of death. In the Board's annual report for 1930 appeared a new section on "Accidental Deaths." Brown revealed in this report the results of a five-year study he had been conducting which showed that most accidental deaths occurred in the home and were readily preventable. Why should the Board of Health not be as concerned with accidents which took human life as with deadly diseases? To Brown the answer was obvious. There began now that careful recording of home, farm, and automobile accidents which would carry Kansas far into the lead in the accumulation of statistical records on acci-

dents. Many other states, insurance companies, and even the National Safety Council would follow Kansas records as models for their own educational and actuarial work. As late as 1944 Kansas was cited by the National Safety Council as the only state in the country with complete data on farm accidents.[8]



From the *Fifteenth Biennial Report of the State Board of Health* (1928-30)

But to return to the political storms of the Davis administration, the Board of Health had much company in its miseries of 1923 and 1924. The waves which capsized Crumbine and sent his followers fleeing for cover also beat hard against the Medical School. By the time the storm lifted, a dean had been fired, a faculty demoralized, and plans for the future set back a decade.

To understand these events fully, we must first trace the course of the Medical School from the closing days of World War I. The War itself had highlighted the need for doctors. The number of medical graduates in Kansas had continued to drop as standards climbed higher and the doors of the last private schools banged shut. Having driven its competitors out of existence, the University of Kansas School of Medicine now fought a grim battle merely to stay alive. Hostile legislators and unfriendly governors had brought the School to the very brink of catastrophe. Then came the War. Doctors were needed everywhere: to treat wounded soldiers, guard the health of military garrisons, care for an overworked civilian population, and fight the great epidemic of influenza. "It is now apparent to Kansas," read an editorial in the *Kansas City Star* in 1918, "that it has missed a great opportunity to be ready to give the United States the support it needs in one vital particular, because of its failure to develop, instead of cripple, its state medical school."[9]

The postwar mood of Kansas brought a change of fortune to the Medical School. In 1919 the Legislature voted $200,000 for a new hospital building but left its location to a committee headed by Governor Henry Allen. It was now clear that the old site was impossible of further development. Uneven terrain, inaccessibility, smoke, and noise from the railroad all voted against it. Could a better be found? An offer of ten acres in the central district of Kansas City, Kansas, came from the Chamber of Commerce of that city. Other cities made ready to offer their bids. Citizens of Rosedale were seeking to raise $35,000 to buy land adjacent to the old site. But this last move was blocked by the

high prices asked by the real estate operators controlling this adjacent land. Then Dean Sudler, with the support of Chancellor Strong and most of the medical faculty, strongly urged Governor Allen to accept the so-called Kern tract, located one mile from the old site in Kansas City, Kansas, in a level area readily accessible to public transportation. One-half of the purchase price of this tract, approximately, was offered by the city of Rosedale, which had hitherto voted bonds to extend the old site. Faculty members now offered to subscribe $16,000 toward the purchase, about one-fourth of the total amount needed. Friends and alumni of the school provided the remainder. It was not the intent of the committee, wrote Governor Allen to the mayor and council of Rosedale, to start a new school but simply "to continue the Bell Memorial Hospital on a new site." Surely future legislatures would be more generous to this new endeavor at launching a successful medical school than to its ill-fated predecessor.[10]

To the earlier appropriation the 1921 legislature added $235,000 for the completion of the first unit at the new site, a hospital and classroom building to be called Bell Memorial Hospital. There was still some legislative reluctance, however, and only strong support from the Governor rescued the bill from the House Ways and Means Committee, which had struck down the entire appropriation. The way was now clear for development of the new site. A consultant from Minnesota, Dean E. P. Lyon of the state medical school there, was called to Kansas in 1923 to survey the new location and give his views on the future of the School. He found the new site a great improvement over the old but criticized, as had others before him, the division of the Medical School. The departments at Lawrence he found crowded, "and the condition is growing intolerable." His recommendations to the State Board of Administration included a new building for the basic medical sciences at Lawrence, long-range plans for the unification of the School in Kansas City, continuance of the policy of hiring the best clinical

men available, whether resident in Kansas or Missouri, and use of the old hospital at Rosedale for patients with contagious diseases. The Kansas Medical Society, he advised, was friendly to the School and should give it greater support. For its part, the School ought to provide more short courses and extension work for physicians.[11]

Here, then, was the situation in 1924. Optimism was the keynote. The new hospital building was complete in the late spring. There was evidence that the legislature, the medical profession, and the people of Kansas were now rallying at last around their state medical school. Feelers had even been sent out to Abraham Flexner, now director of medical philanthropy for the Rockefeller Foundation, to learn if he could be interested in supporting the long-range plans for the School. He had shown some interest. If the School should be consolidated with the Rockefeller Foundation's aid, should it be in Kansas City? Dean Sudler polled his faculty in 1924 in preparation for his forthcoming conference with Flexner. Faculty members divided almost evenly in their loyalties to Kansas City and Lawrence. Most of the professors in the scientific departments at Lawrence favored Lawrence as the site of a united school, even if it meant more expense and less clinical material. Kansas City faculty members, on the other hand, were equally certain that the basic science departments must eventually be brought to their city. Professor C. F. Nelson, chairman of the Department of Biochemistry, spoke for most of his Lawrence colleagues when he wrote that he favored continuation of the divided school until reunion was possible in Lawrence. "Here commercialism is at its lowest," Nelson wrote to Sudler; "here he [the medical student] touches a more scholarly world and rounds out his education more broadly. The divided school is bad, but every argument that can be advanced for a divided school applies with even greater force to a detached medical school." From the Kansas City school, however, came a letter from Professor Ralph H. Major,

who best summed up the views of his clinical colleagues. First of all, the Kansas City location now afforded an excellent site and hospital building. Then there were the undeniably greater opportunities for clinical material there, and was not this the prime essential in training good physicians? Furthermore the nation's best medical schools, said Major—Harvard, Johns Hopkins, Western Reserve, the University of Pennsylvania—were all found in large metropolitan areas.[12]

At least the question was narrowed. No longer was it a matter of deciding between Topeka and Kansas City, or Wichita, or Lawrence, but only whether Kansas should have a unified or a divided school. The Kansas Medical Society took the common-sense view that whatever the merits of the debate the legislators and people of Kansas were unlikely to look with generosity upon a School which could not make up its own mind. The Society went on record as opposed to any move to Lawrence because of commitments already made, the paucity of clinical material in Lawrence, and the greater expense, including salaries for clinical professors, which would be necessary. For its part, the Society favored the unification of the Medical School in Kansas City as soon as possible. Here, too, was a growing area of agreement.[13]

In June, 1924, Abraham Flexner was host to a Kansas delegation which included Governor Davis, Chancellor Lindley, and Dean Sudler. They told Flexner something of their plans but indicated their willingness to give the Rockefeller Foundation a decisive voice in shaping the School's future if substantial aid were forthcoming. Governor Davis affirmed his intention to "put the medical school on the map in a way that will make it one of the greatest institutions of its kind in the West." Much interested, Flexner promised to come to Kansas in the fall to look over the School and its resources.[14]

Dean Sudler had already offered Chancellor Lindley his resignation so that a complete reorganization might be made, but

Lindley asked him to stay on until after the Flexner visit. A man of rigorous training and high standards, Sudler had put forth his best efforts to raise the quality of the Medical School. He sought the best available talent for his faculty and cared little whether they lived in Missouri or Kansas. He was sincere and straightforward and found it difficult to compromise where ideals and standards were involved. He did not understand the ways of politicians, never exercising the tact and diplomacy which might have won them to his side. Furthermore, as a part-time practitioner, he lacked the time and energy to preside effectively over a faculty spread between two cities. Faculty squabbles and disagreements, therefore, were allowed to fester, sometimes attracting unfavorable publicity. "Just between ourselves," wrote Dr. M. L. Perry, president of the Kansas Medical Society, to Karl Menninger in 1922, "there is a good deal of feeling in the Society that Sudler should be replaced with a full-time dean who can iron out faculty troubles, etc. a little better than he has. It would therefore not surprise me very much if some action were taken in the next year or two."[15]

Perry's prophecy was fulfilled but in a manner which shocked the faculty, aroused the whole medical profession, and ended any hope of Rockefeller aid. On July 22, 1924, while Sudler was on vacation, newspapers carried the headline that Sudler had been fired, along with Dr. E. P. Hall, head of the Ear, Nose, and Throat Department, and John Shea, superintendent of buildings and grounds at Lawrence. According to Governor Davis, he had taken matters in his own hands after Chancellor Lindley had refused to fire these men. Sudler was charged by the Governor with being "incapable of handling executive duties," while Shea was dropped, in the Governor's words, "because it was alleged he had been a slacker in the World War." Characteristically, Sudler wrote immediately to Flexner, expressing the hope that this abrupt action would not interfere with his plans to visit Kansas. Flexner's reply was brief: "Under the present circum-

stances I am no longer interested in the Medical School of the University of Kansas."[16]

Thus was unloosed another *furore* rivaling the Crumbine resignation the year before. Davis had started the University on a course, warned the *Kansas City Star,* "that, in the end, will bring [it] to the pawnshop of every political broker in the state." Chancellor Lindley was on the way to Colorado when he learned of his Dean's dismissal, and he hurried back to Lawrence. He fought to save at least Sudler's faculty status which had been promised him but which Governor Davis now also renounced. By the end of the year Lindley, too, was fired by Davis, only to be reinstated by the incoming Paulen administration.[17]

After Sudler pressed for the reasons for his summary dismissal, the seething tensions and burning grievances behind his discharge were laid bare. He was charged, first of all, with failure to interest certain physicians of Kansas in the Medical School. Outstanding local men, it was said, were ignored in preference for Missouri specialists. Here was the ancient grievance of Kansas doctors, particularly Kansas City, Kansas, specialists, against Sudler's policy of considering only merit in his hiring policies. Members of the staff of St. Margaret's Hospital in Kansas City, Kansas, he was told, had not received sufficient recognition for their teaching services. Moreover, it was alleged, Sudler and other University men were exploiting the hospital for their own private gain. Similar was the complaint that salaries were being paid to clinical men when there were many specialists willing to contribute their services free. Here spoke the resentment of Kansas doctors at Sudler's policy of trying to pay some salaries to clinical faculty members, chiefly Missourians, to ensure a measure of faculty loyalty and commitment.

Finally, Sudler was charged with permitting a man with "only" a Ph.D. and no M.D. degree to remain as chairman of the committee on admissions to the Medical School. This ref-

erence was to George Ellett Coghill, whose brilliant concept of organic function as being simply structure-in-action would soon win him international acclaim. Serious, dedicated, and intense, Coghill had little sympathy for the requests for special favors, especially for the sons of Kansas doctors, which came to him in his post as chief of admissions work. Upon hearing the news of the Medical School crisis, Coghill immediately resigned as secretary of the medical faculty and chairman of the admissions committee. The following year he left Kansas for the Wistar Institute in Philadelphia, never to return. Politics had cost the state another brilliant scientist.[18]

Eventually Governor Davis and the State Board of Administration relented in their insistence on Sudler's being dismissed from the faculty as well as his administrative position. Once more the Governor was forced to retreat before the storm of criticism that his action had triggered. Sudler was even praised now for his services to the Medical School. But the damage had been done. Old wounds had been reopened, the entire faculty had been made to feel insecure, and a golden opportunity to find support from a great national foundation had been let fall. Virtually the entire Kansas City faculty appended their names to a final tribute to Dean Sudler drawn up by the able pen of Logan Clendening, who was to win a national reputation for his skill with words:[19]

Since your acceptance of the position fourteen years ago, in spite of difficulties and discouragements that were neither few nor slight, you have maintained the vision of a great medical school, the worthy part of a great university; and it is through your whole-hearted and disinterested devotion and labor that the foundation of such an institution has been laid. That work will go on. There will arise here a school worthy in every respect to teach all who wish to learn the principles of the great humanitarian science of the practice of medicine. We believe that you have left the impress of your personality upon that work for all time in the future.

The work of the School must indeed go on. But first a new dean must be found. Several faculty members were approached. George Gray, long-time professor of surgery, was first to turn down the post. Then Ralph Major, professor of medicine, was called to Governor Davis' office and offered the deanship. But when Major named as his one condition the reappointment of Dr. Sudler as chairman of the Department of Surgery the Governor knew he must search further. Logan Clendening, likewise a professor of medicine and skilled in physical diagnosis, was also considered. Finally, the appointment went to Harry R. Wahl, professor of pathology and bacteriology, who had been appointed acting dean following Sudler's sudden discharge.[20]

What kind of school did Wahl inherit? There was yet only the single building at the Rainbow Boulevard site and little prospect for more. There were, to be sure, two temporary barracks close to the main structure, one a hospital for Negro patients, the other an outpatient department and dispensary. The main building contained 120 beds, almost double the capacity of the hospital on the old site. This latter hospital had been turned over to Kansas City authorities and remodeled as a contagious disease hospital. In another building on the old site were housed the departments of pathology and pharmacology and the library, all unprovided for as yet on Rainbow Boulevard. Dean Wahl reported in 1926 that the "outstanding characteristic of this plant is its physical disintegration." No additional units had been provided as yet in Kansas City, and the basic departments at Lawrence were scattered over a half-dozen buildings.[21]

The School seemed immobilized. An editorial in the *Journal of the Kansas Medical Society* in 1926 stressed that even the immediate needs of the School were staggering. A nurses' home, space for the Department of Pathology and the library, more room for outpatients, additional hospital beds, a new Negro ward, and an expansion of the faculty were all urgent and pressing needs. Only the home for nurses and an additional ward

for the hospital were authorized by the 1927 legislature. But this, at least, was progress and indicated the legislature's continuing approval of the decision to remove to Rainbow Boulevard.[22]

The number of students at the Medical School increased faster than the space provided for them. From 167 in 1924-25, enrollment climbed steadily to 233 in 1929-30. Of this latter number 75 per cent were Kansans and another 15 per cent Missourians. About one-half of all Kansans studying medicine did so outside the state. Several hundred applicants for admission were turned down each year, chiefly for reasons of space.[23]

A rise in standards accompanied the rise in enrollment. By 1924 entering students were "strongly urged" to take three or more years of college work, though only two were required. A satisfactory internship prior to the granting of the M.D. degree was voted by the faculty in 1923. This was stoutly resisted by the students, however, on the ground that the School could not guarantee suitable internships to all students. According to the report of the Council on Medical Education of the American Medical Association in 1930, only four hospitals in Kansas were approved for internship outside the University hospital. These were Bethany and St. Margaret's hospitals in Kansas City and St. Francis and Wesley hospitals in Wichita. Many students, of course, took their internships in Kansas City, Missouri, or other cities outside the state.[24]

Several interesting innovations in the work of the Medical School were inaugurated in the 1920's. In 1928, for example, junior students were first assigned during their summer vacations as assistants to practicing physicians throughout the state. It was Dean Wahl's intention, in his words, "to give the students some of the advantages which existed during the early days of medical practice when a young man who wished to be a doctor would study under a preceptor, usually a physician in active practice." Thus had the wheel of medical training come full

circle in a half-century! Actually, the program met with little success at this time but was later revived and expanded in the wave of new developments at the School in the late 1940's. Another innovation which was also to figure later in the medical renaissance of the 1940's was the offering of short-term postgraduate courses to the physicians of Kansas. Courses in surgery, obstetrics, pediatrics, orthopedics, and internal medicine were offered at the School or in other cities throughout the state during the 1920's. That these courses were not an unqualified success seems certain from a Kansas Medical Society committee report of 1930 that the Medical School was "discouraged by the lack of attendance" at these courses. A final innovation of moment was the beginning in 1930 of the Porter Lectureship in Medicine, made possible by the gift of Dr. J. L. Porter, a general practitioner in Paola, who wanted to see scholarship and research at the Medical School encouraged.[25]

Research was not a major activity in the Medical School of the 1920's but a surprising amount of original work was done. Until he left Kansas in 1930 Russell Haden was busy with those researches in focal infection, hematology, and intestinal obstruction which would make him an international figure in the medical world. Thomas G. Orr, professor of surgery, was also interested in research, carrying on one well-known pioneer study with Haden in electrolyte balance. And from the pen of Ralph Major flowed a stream of papers on medical and clinical (and later historical) subjects. The work of George Coghill at Lawrence has already been mentioned. In bacteriology Noble Sherwood was winning a reputation for his significant studies in immunology. One of the most striking pieces of research to come out of the School of Medicine of this period was Orval Cunningham's studies in treating pneumonia victims by raising the atmospheric pressure. He devised a mammoth tank which would house several patients with all their varying needs for several weeks. The interior of "Cunningham's tank," as the local citi-

zens called it, resembled a Pullman car complete with sleeping, eating, washing, and toilet facilities. Medical opinion differed on the worth of these atmospheric treatments, but many patients were treated in his pressurized chamber. The doctor was ultimately persuaded to go to Cleveland, where a philanthropist caused a monster tank costing one million dollars to be built to his specifications.[26]

By the early 1930's the Medical School had ridden out the storms of the preceding decade. Most of the unpleasant events of 1924 had been forgotten. Under Wahl's captaincy the School was experiencing a period of quiet but steady growth. Faculty morale was improving, facilities were slowly expanding, and an era of good feelings between the School and the medical profession of Kansas had begun. Most important, the 1920's settled forever the question of the ultimate location of the Medical School. While some might still question the wisdom or timeliness of moving additional segments of the medical course to Kansas City, no one would seriously challenge the decision to plant the University's Medical School in the metropolitan area. This meant new prospects for growth and development once the Legislature grasped the finality of this choice. Unfortunately the Great Depression of the 1930's and a Second World War would intervene before Kansas could fulfill the "vision of a great medical school" which Logan Clendening and his colleagues saw as the enduring contribution of the Sudler era to the University of Kansas School of Medicine.

These developments in the Medical School were viewed by the public with a mixture of pride and concern. Only a man completely lacking in loyalty to his state could have considered with equanimity the prospect of a collapse or retrogression in medical education at his state university. Most citizens welcomed rising standards, increasing enrollment, and faculty achievements as the outward mark of growth and well-being. Yet not a

few voices were raised in opposition to standards which were sharply reducing the numbers of physicians in Kansas, particularly in the rural areas. This decrease was absolute. Every year saw more doctors die or retire than came to practice in the towns and villages of the state. In 1921 there were 2,688 registered physicians in Kansas, yet the Medical School graduated only 53 new physicians that year, a replacement rate of less than 2 per cent. Were standards perhaps climbing beyond the needs and purses of the citizens of Kansas? A Hutchinson doctor, H. J. Duvall, complained in 1925 that[27] "the requirements for securing the degree of Doctor of Medicine are too high. The intellectual or so-called leaders in the profession have led us up into the heights of knowledge so high that none but the ablest financially can make the climb. Thus, automatically cutting out the average young man from securing a medical education in the regular schools. Creating a shortage of physicians in the rural regions and in the smaller towns. . . . No young man is going to spend from eight to twelve thousand dollars and seven years' time in securing the present day medical degree, and then go out in a rural community and practice medicine."

Here was a serious and growing problem, not only for Kansas but the nation. A sharp decline in the number of medical schools, the lengthening period of education with its concomitant rise in costs, and the reluctance of practitioners so extravagantly trained to go into rural practice were creating a doctor shortage of serious proportions. It was offset only in part by the advent of the automobile and hard-surface roads which brought city offices and hospitals within easier reach. An entire county might be without a physician. What should then be done in times of emergency or epidemic?

The problem was particularly acute in Kansas, an agricultural state with few cities of size. A study made of University of Kansas medical graduates from 1916 to 1920 showed that of 81 graduates only 29, or 37 per cent, took up practice in com-

munities with 5,000 population or less. The largest single number of graduates started to practice in cities in the 100,000 to 500,000 population group. In Kansas this could mean at the time only one city, Kansas City. A president of the Kansas Medical Society, E. D. Ebright, noting this trend in 1924 warned that it was "a very serious condition." Matters would get worse, however, before they got better. As the older doctors, trained in a freer and less rigorous age, died or retired, few rose to take their place. Not until the late 1940's with legislative endorsement of the Rural Health Plan would a vigorous, planned effort be made to combat this disastrous condition.[28]

Critics of medicine in the 1920's turned upon specialization as the root cause of all the trouble. If doctors would only be content to practice medicine as their grandfathers had, instead of flocking to the clinics and laboratories of the city, there would be no problem! Many were the laments from the press, the public, and the profession itself at the passing of the "old family doctor." A Wichita doctor, E. S. Edgerton, in his presidential address to the Kansas Medical Society in 1930, urged a return to "the good old-fashioned family doctor, who specialized in no particular line." "The hospital doctor," he charged, "is not the man to go into the homes and care for the sick." From a Norton doctor, Roland G. Breuer, came a sharp attack on the young specialists who were contemptuous of the "Old Fogies" still practicing medicine. So typical was it of the mood of the 1920's in Kansas respecting specialization that it deserves quotation:[29]

> In medical college our young doctor learns to twiddle a test tube, split a drop into equal thirds, and a lot of high-faluting tests. . . . What are his qualifications? A test tube disposition, a rabid follower of drug nihilism, poor psychologist, poor clinician, with no conception of materia medica or therapeutics. How lucky it is, for the first three years of his medical existence, that 75 per cent of all human ailments subside in spite of medication or do not go on to death within that time!

What are the real doctor's ambitions? To go out into the country and be one of the bunch, to minister to the poor and lead halting footsteps by the sanest, most comfortable way? No sir! A specialty for him—he wants none of this blacksmithing. . . . The city lures him toward itself. The country is slow, the natives are dull, the mud is deep and the roads often impassable. . . . Therefore, of late years there has been a concentration of physicians in the cities, with adverse results. . . . Less work is done per capita, and it is of a more specialized nature. The fees are correspondingly higher, since they are derived from a smaller total of work and must cover higher office expense and living cost. The public pays the difference—or goes to a chiropractor.

The fact was that specialization tended to increase in calm and prosperous years, decrease when the business cycle turned down. If we may have confidence in the results of one national survey, the number of doctors specializing in Kansas was very high in 1915 (following the first great wave of specialization), low in 1920 (after World War I), rising in the prosperous 1920's, very low in the depression year of 1930, and at a near all-time peak in 1940.

PERCENTAGES OF KANSAS AND U. S. MEDICAL GRADUATES LIMITING PRACTICE TO A SPECIALTY

	1915	*1920*	*1925*	*1930*	*1935*	*1940*
University of Kansas Medical School graduates	62.5	25.0	34.8	16.2	38.1	60.9
U. S. average	40.9	35.0	34.0	30.4	55.1	63.3

Source: H. G. Weiskotten and Marion E. Altenderfer, "Trends in Medical Practice," F. Smiley (ed.), *Medical Education Today* (Chicago, 1953), p. 82.

Specialization, too, meant a growing impersonality in doctor-patient relationships. In the modern medical center, one technician took the blood count; another examined the blood for urea and calcium; still another made the electrocardiogram; perhaps a fourth might measure the metabolic rate; all the while a trained nurse was caring for the patient's needs, an interne was writing the clinical history, and the resident was giving a physical examination. Then, when all these helpers had finished, the zero hour dawned and the great doctor entered the sick room

for the first time, followed by another retinue of internes, nurses, and assistants to spend five, ten, or perhaps fifteen minutes with the patient. Doctors sometimes spoke of themselves, quite rightly, as members of a medical team rather than individual performers. With much justice Dr. W. S. Lindsay of Topeka complained in 1926, at the completion of more than fifty years of practice, "The one thing I observe that is different from the former time is a lack of regarding the personality of the case, a tendency to make much of the diagnosis and classification of cases with less attention to the individual." But at bottom the problem was insoluble. Impersonality was only the reverse side of the coin of specialization which was in turn the price of medical progress. The clock could be turned back on specialization in medicine no more than in technology, business, or other fields of science and scholarship. Much, however, could and would ultimately be done to bring about a better distribution of those physicians who were still devoting themselves to general practice.[30]

Hand in hand with more specialization went more hospitals. By 1920 there were 105 hospitals in Kansas, only eight of them with more than one hundred beds. Small hospitals, owned and run by doctors, were still typical throughout the state. Gradually, however, these were passing into the hands of religious, benevolent, or municipal authorities. A doctor-owned hospital would soon be almost as rare as a doctor-owned medical school —and for the same reasons. One of the first to see the handwriting on the wall was Dr. John T. Axtell, who in 1925 turned over his well-equipped private hospital in Newton to the Kansas Christian Missionary Society. He realized, he said, that hospital services were fast becoming too complex and costly for hospitals to be operated as private institutions. Certainly the new hospitals founded in the 1920's were to be chiefly under community or religious control.[31]

In the mental hospitals there was still no escape from the overcrowding, the understaffing, and the popular stigma which

had plagued these institutions from the first. A Board of Health investigation at Osawatomie in 1916 resulted in a scathing report condemning the institution as "a hospital in name only." No improvements in the main buildings had been made since 1886. Two whole wards were found in basements too damp to plaster. Violent patients were discovered naked in unheated rooms with windows thrown wide open. In the infirmary every toilet smelled of sewage. The institution, wrote Superintendent F. A. Carmichael in 1920, "remains today as it was at its foundation in 1863—an asylum, a place of detention, without means of administering curative treatment to the unfortunates consigned to its care."[32]

Conditions at Topeka and Larned, where the third mental hospital was founded in 1913, were little better. Another state hospital at Parsons had been converted to use as an epileptic hospital in 1903. Yet despite accommodations for about 3,500 persons at the three major hospitals, there were still many unfortunates who were denied admission. We read, for example, in a newspaper of the early 1920's that the state board of administration was appealing to county judges to assign mild cases of insanity to county poor farms. "The state asylums," reads the report, "are overcrowded . . . and room must be made for the accommodation of the more violent cases which cannot be cared for conveniently at county farms." In 1928 the Attorney General's office ruled that it was the responsibility of all counties to care for those indigent insane persons who could not be received into a state hospital.[33]

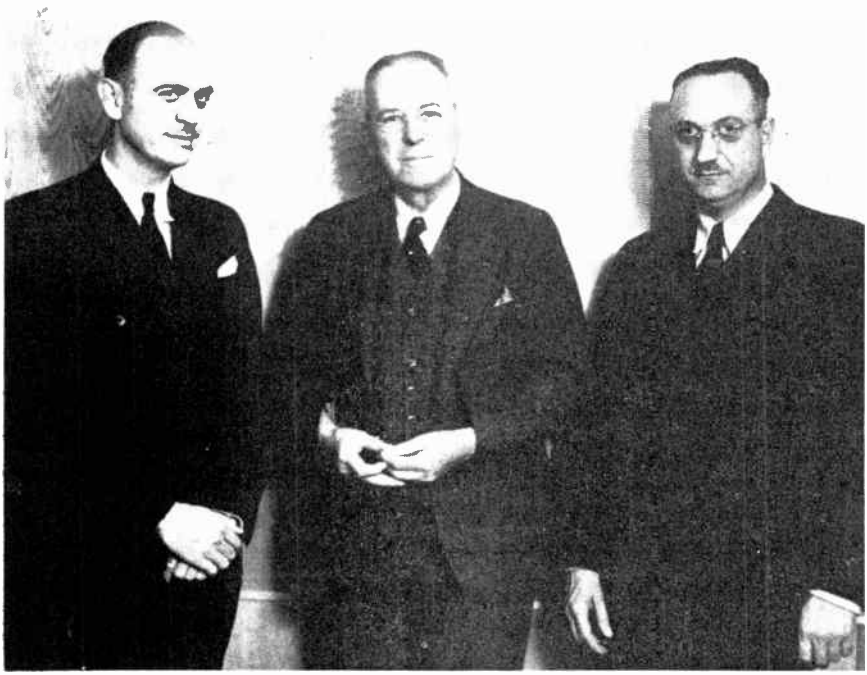
One gain had been made in admissions procedure, thanks to the returning veterans of World War I. In 1919 the Kansas legislature passed a law allowing persons with mental disease to be admitted to any state hospital without a court trial. The measure was aimed chiefly at war veterans suffering from shell-shock who were thus excused from the indignity and public embarrassment of an insanity trial. But the law was construed

to apply to any citizen voluntarily seeking treatment. Actually such involuntary admissions were as yet very few in number as the aura of dread enveloping these hospitals had lifted scarcely at all since the 19th century.[34]

Nor was the threat of political interference gone. A new law in 1905 growing out of the mass exposés and scandals at the turn of the century had given the superintendent of each hospital control over his own assistants and employees. But while this freed the state hospitals of the petty politics so disturbing to superintendents of the 1890's it did not protect the superintendent himself from the vicissitudes of political fortune in Topeka. Just as Crumbine and Sudler found themselves out of favor with the Democratic administration of 1923, so did the superintendents of state hospitals find themselves out of favor if they refused to add deserving politicians to their staffs. At the Topeka State Hospital Superintendent M. L. Perry had the good fortune to be a lifelong Democrat and took his stand with some confidence against the Governor's insistence that his steward be replaced by a Democrat. But when O. S. Hubbard, superintendent of the Parsons State Hospital for Epileptics, took the same stand when pressed to replace a number of employees he was promptly fired. These political eruptions in state institutions during Democratic administrations should not be interpreted, of course, as evidence of the superior virtues of Republican statesmen. Dr. Perry and other Democrats might well have replied that such irresponsible excesses as those of Governor Davis were the inevitable result of political power too long denied one party in a state dominated by the other political party.[35]

One ray of hope for the insane beat through the murky clouds which continued to envelop the mental hospitals well after the 1920's. This was the growth of interest and knowledge among medical men in the specialties of psychiatry and neurology. Among the specialties followed by physicians in the 1920's psychiatry showed the most remarkable leap in the number of

Above: Old Campus of the University of Kansas Medical School, 1918
Below: Deans Mervin T. Sudler and H. R. Wahl



Above: The first building of the Menninger Clinic (1925), now housing administrative offices
Below: Drs. Will, C. F., and Karl Menninger in 1925
Courtesy of the Menninger Foundation

its devotees. Of every eight specialists practicing in 1930, one would be a psychiatrist. There was, too, a great rise in interest among laymen in psychiatry during the 1920's. Freud was "discovered" by the intellectual classes in America in these years and whatever may be said of his influence on psychiatry, none can deny the interest which he whetted in this subject among thinking men and women. The concept of a mysterious impact upon human behavior (and misbehavior) of traumatic lesions in the psyche, of words and deeds long forgotten by the conscious mind, evoked a great expansion of the intellectual horizons of modern man. Not only medicine but the social sciences, education, child training, literature, and the fine arts would feel in turn the impact of Freud's revolutionary thought.[36]

To Topeka in 1919 came young Karl Menninger, charged with the liberating ideas that came from his reading of Freud, Jones, and Brill, as well as his exciting work with Ernest Southard. The latter, too, was rebelling against the older organic classifications of mental disease, though he was no friend to psychoanalysis. Through Southard, Karl met Ely Jelliffe who, he later recalled, "introduced me to people, to experiences, and, above all, to ideas." With A. A. Brill and William Alanson White, Jelliffe was one of the real founders of psychoanalysis in the United States. Menninger was advised by Southard to return to his native Midwest rather than remain at the Boston Psychopathic Hospital, which he had opportunity to do. He prophetically urged the young Kansan, as Menninger recalled his words, to "go out there and establish the Clinic that your father has always dreamed of, but introduce psychiatry into it, introduce modern neurology, modern neurosyphilitic treatment, and modern psychiatric ideas, mental hygiene concepts, etc. Establish a Sanitarium. Establish a school. Teach people what psychiatry can do and should do. Educate the doctors, school teachers and general public."[37]

Here, step by step, was the program which the brilliant, driving, restless Topekan would carry out over the next decade with his father and brother Will. The elder Menninger—C. F., as he was always called—had long dreamed of the day when, together with his sons, he might establish a modern clinic patterned after that of the famous Mayo Brothers, which he had first visited in 1908. On the morning of his return from Minnesota, according to family history, Dr. C. F. told his wife: "Mother, I know now what I am going to do with our boys. I am going to have them all be doctors and we're going to have a clinic." Years later he would write to William Mayo that "we have in a very small way been trying to imitate not only your scientific idealism but your mutual regard and consideration for one another and your co-operation with your associates."[38]

The rest of the Menninger story has become an epic in the history of mental health. The clinic which Southard had urged was established in 1919, but with little immediate success. Christ's Hospital was then persuaded to make some room available for Karl's patients. By 1923 Karl and his father had plans ready for a sanitarium and began the search for financial support. Letters were sent out to Topeka businessmen and to hundreds of Kansas doctors. Most were uninterested in a private hospital in an era when such hospitals seemed to be outmoded. The reply of Arthur Hertzler, himself the owner of a private hospital, was typical: "Anybody who is starting a private hospital has my sympathy. He is open for a painful disillusionment. I have a young fortune invested which I wish I had out. Oh you overhead, there never was a nightmare your equal! Lord help you I can't if the bug has really bitten you."[39]

Yet somehow the necessary money was raised and the doors opened in 1925 on the Menninger Clinic and Sanitarium. The most important single thing about the Menningers, probably the key to their success, was that the psychiatry practiced in their Sanitarium was an adjunct to the general practice of med-

icine. Here was no mysterious cloister, no dread sanctum where the mentally ill might seek refuge. Rather, from the first, all of the Menningers took painstaking care to impress their colleagues as physicians first, and psychiatrists second. And there was nothing very mysterious about Dr. C. F., Dr. Karl, or Dr. Will, the soft-spoken, agreeable younger brother who had joined the Menninger team in 1925. As Walker Winslow has well put it, there could be no mystery about men who "held Bible classes, promoted municipal rose gardens, ran scout troops that got national awards." Certainly no physician in Topeka commanded greater respect than the elder Menninger, who had successfully practiced general medicine there for a third of a century. Now, in deference to his sons, he began deliberately to relinquish his own work and to study psychiatry and neuroanatomy in order, as he put it, "to be an assistant" in the work of his sons. That this was a remarkable partnership from both sides is indicated by an extraordinary memorandum which a brash Karl, fresh out of medical school, left on his father's desk in the summer of 1918:[40]

I want to say that I am more impressed each year of my life, and this year each month of it, with the remarkable progress you made up from a meagre medical educational endowment, entirely self acquired, which puts you far ahead of the average medical man, and alone with one or two in this state and a few in Kansas City. I can tell you, father, that this makes me, your son, extremely proud of his father, and the more anxious to come and be with you and practice with you and think and act with you in mutual help and strength. I want you to know this, and to be sure of it, and to reflect on it, remembering that your practice, numerically speaking, has no attraction for me because I could probably acquire such in other places, e.g. with some man in K.C. But nowhere in the world will I get the help and pleasure from the medical cooperation that I will from working with my father.

Nor did Karl forget Southard's advice to "teach people what psychiatry can do and should do." From the day of his arrival

in Topeka he began a one-man campaign to overcome popular fears and superstitions concerning mental illness. He lost no opportunity to speak, to write, or to demonstrate the need for mental hygiene in Kansas. "Why not give your minds a bath and brush your intellectual teeth?" he asked the Lawrence Kiwanis Club in 1921. More than 90 per cent of the people of Kansas, he wrote in the *Journal of the Kansas Medical Society* in 1922, "are far removed from any source of free help in personal problems of mental sickness." He began a free clinic for nervous and mental disease in Topeka; taught courses in abnormal psychology and mental hygiene at Washburn University; and led a movement to bring a child guidance clinic to the capital city. A school for exceptional children, named for his old teacher, Professor Southard, was opened in 1925. He was constantly quoted in his views on crime and delinquency, especially when he wrote that "no important administrative distinction will ultimately be made between 'asylums' and 'jails.'" And in 1930 he won a national reputation for his best-selling book, *The Human Mind*. This was the first popular book on psychiatry in America, written in a simple, lucid style and exploring every curious recess of human mentality. Furthermore, it was optimistic in tone. Even the dullest reader would catch some of Karl's enthusiasm and faith that much could be done for the mentally ill if only more sense, more education, more money, and more intelligence were thrown into the fight. The book was replete with fascinating case histories drawn from personal experience to illustrate every disorder and abnormality. One example will suffice.[41]

Mrs. K. had been in a hospital for three or four months and had made apparent recovery from a very severe depression. Her husband was importunate and we consented to his removing his wife on condition that he get someone to stay with her constantly for the next three months. He said she seemed so cheerful and so like her old self that he scarcely thought it necessary, but would do so if we insisted. All went well for about a month,

when one day the woman whom he had hired to stay with his wife in the day-time was ill and could not come. He thought he would take a chance because his wife seemed perfectly well. She got his early breakfast, and when the children got up she prepared their breakfast, washed them, dressed them, and sent them to school. Then she cleaned up her house neatly, put everything in order, went to the barn, and hanged herself.

The Menningers were thus in the forefront of the great battle of the 1920's to bring mental illness out of the shadows into the full light of day. Psychiatry, too, must be brought out of the dark recesses of the asylum into the clinic, the hospital, and even general practice. The long isolation from the other medical specialties must be ended. Psychiatry, like internal medicine or surgery, must have its clever residents, its eager internes, its special nurses and assistants. Asylums must become hospitals, and alienists become more than caretakers before the melancholy annals of the insane would be turned to a brighter page. In the turning of this page, Kansas and the Menningers would have a large role.

When the new Sanitarium in Topeka was opened during a lull in the political storms of the 1920's, Karl Menninger held an open house for members of the Kansas Medical Society. This gesture of respect and fraternity was a harbinger of the coming close co-operation among all the medical agencies of the state. By the 1950's no state medical society in the country would enjoy such close and cordial relations with its state university, board of health, medical school, mental hospitals, rural health agencies, and voluntary hospitals and sanitaria as the Kansas Medical Society. This was due in part to the "Kansas spirit" tempered by historic events and still exerting a unique attraction on the medical men of the state. Was it only happenstance that Karl and Will Menninger returned to Topeka, that the state university held such men as Williston, McClung, Barber, Sherwood, and Coghill far longer than salaries and facilities alone would justify, that Arthur Hertzler carried a national repu-

tation back to Halstead, that Crumbine was forced out of Kansas only by incredibly short-sighted politics? Certainly Crumbine's own policies of close consultation with the Medical School and the Society had helped to lay the groundwork. But a third factor was the common cause which all medical men and institutions were forced to make in face of the outside storms of the 1920's. A new sense of *camaraderie,* of common dangers faced together, was shared by the doctors of Kansas in this period, whether they were teachers or practitioners, health officers or research men.

The Kansas Medical Society viewed the events at the Board of Health and the Medical School with grave misgivings. Doctors were numbered among Crumbine's strongest supporters and, whatever their opinions of Sudler, as physicians and alumni they could not help considering the manner of his dismissal a threat to the School's future. And there was concern, too, for the other state institutions under political attack. It is a remarkable fact that in the entire history of the Kansas Medical Society only six superintendents of state institutions have been elected its president; yet five of these held office between 1921 and 1927! These included the heads of all three mental hospitals, M. L. Perry in 1922, F. A. Carmichael in 1925, and John A. Dillon in 1927. In addition, the superintendent of the Norton Tuberculosis Sanatorium, C. S. Kenney, was elected in 1921 and, as pointed out earlier, Earle G. Brown of the Board of Health held the president's chair in 1926.

A number of Kansas doctors were themselves engaged in politics in the 1920's. In contrast to the earlier years, however, the influence of doctor-politicians upon the state's history was now fading. Two remarkable exceptions were Charles S. Huffman of Columbus and Jacob W. Graybill of Newton, both of whom served as lieutenant-governor during the 1920's. Huffman, in particular, was invaluable to the cause of medicine in the state. After service as a military surgeon with the 20th Kansas Regi-

ment in the Spanish-American War, he served for fourteen years (1904-1918) in the state senate. He led the fight there on behalf of Crumbine's pure food and vital statistics laws, and pushed hard for the legislation creating the School of Medicine at Rosedale. During World War I he was adjutant general in the Kansas National Guard, with responsibility for administering the selective service draft in the state. His medical colleagues honored him with the presidency of the Kansas Medical Society in 1917 following fourteen years as the Society's secretary. After his two terms as lieutenant-governor (1919-1923) he was of further use to medicine as a member of the new State Board of Administration, in charge of all Kansas health institutions, after the defeat of the Davis administration in 1924.[42]

By the 1920's membership in the Kansas Medical Society had passed 1,500 and included about three-fourths of the physicians in the state. A directory published by the Society in 1921 showed that a large percentage of the members were now graduates of homeopathic and eclectic schools. One ancient campaign had at least been concluded. The benefits flowing from the reorganization of 1904 were still being felt. Every county in the state had long since been organized, the process having been aided, of course, by automobiles and good roads. Topeka continued to be the favorite meeting place of the Society, claiming by far the largest number of former presidents. Many innovations in the work of the Society had been introduced, including a Medical Defense Board to aid members in lawsuits, and a Doctor's Credit and Collection Bureau, which met with less success. In 1931 the Society became the first state medical association to publish a health journal for the laity. Called "Folks," it reached a circulation of 6,900 at the end of the first year. This venture was soon abandoned, however, apparently under the pressure of the financial troubles of the early 1930's.[43]

In 1921 the women doctors of the state organized themselves into a Kansas Medical Women's Association headed by

Dr. Elvenor Ernest of Topeka. Nearly fifty women joined the new association. Here was proof that the woman doctor had now become a commonplace in Kansas. It had not always been so. Cornelius Logan spoke for many early Kansas doctors (male) when he wrote in 1867 that "we hope never to see the day, when the female character shall be so completely unsexed, as to fit it for the disgusting duties which imperatively devolve upon one who would obtain proficiency, or even respectability, in the healing art." A president of the American Medical Association, the famous Alfred Stillé, echoed these sentiments four years later when he told the assembled physicians that the female was "characterized by a combination of distinctive qualities, of which the most striking are uncertainty of rational judgment, capriciousness of sentiment, fickleness of purpose, and indecision of action, which totally unfit her for professional pursuits." Yet the next year, in 1872, Kansas became the first state where women were admitted to the state medical society. This was four years before the first women was allowed to take her seat at an American Medical Association meeting. Some of these early women doctors in the state—Ida Barnes, Sarah Hall, Alice Tockham, Deborah Longshore—became very well known in medical circles. Most of them received their medical education at the Kansas Medical College in Topeka, one of the early medical schools to admit women, or the Woman's Medical College of Kansas City, Missouri, which lasted only a few years after its founding in 1895. Women doctors, too, had their struggles and triumphs, their moments of fear and of heroism. When Dr. Mary Bennett of Greensburg in southwestern Kansas was honored on her eightieth birthday in 1932, among the testimonials was that of a woman whom "Dr. Mary" had driven forty miles through a howling blizzard to attend in childbirth, bringing with her the first tea the woman had tasted in three months.[44]

Without question the single most important problem which plagued the Kansas Medical Society and its membership in the

1920's was the growing power of a new host of quacks and irregular practitioners. The homeopaths and eclectics had fallen before the onslaught of scientific medicine, but a new generation of cultists had now risen to take their places. In pursuing this war against quackery and deceit the Society would soon find itself at the center of the fiercest political storm yet to blow over the battlements of medicine's defenders. Before the storm would subside, Kansas doctors would confront the monstrous possibility that the state's most flagrant quack would sit in the governor's chair and control the medical destinies of their state.

Why should cultism and quackery have any appeal after the magnificent triumphs of scientific medicine? There is no easy answer. Ignorance, superstition, and blindness to medicine's progress were doubtless involved. Therapeutical nihilism may still have affected some. Certainly some diseases were still incurable and the promises of an unctuous quack stirred hope in sufferers doomed to death or disability. Moreover, many doctors were so dazzled by the brilliant achievements in surgery and controlling infectious disease that they lost sight of the undeniable force of mental influences in curing and preventing disease. "Mr. Dooley," the famous Irish columnist for the *Chicago Daily News,* struck a vein of solid truth when he wrote:[45] "Father Kelley says th' styles in medicine changes like the styles in hats. . . . He says they ought to enforce th' law iv assault with a deadly weapin' again th' doctors. He says that if they knew less about pizen and more about gruel an' opened fewer patients and more windows, they'd not be so many Christyan Scientists. He says th' diff'rence between Christyan Scientists an' doctors is that Christyan Scientists thinks they'se no such thing as disease an' doctors thinks there ain't anything else. An' there ye ar're."

Of the many cults which flourished in Kansas despite the Medical Practice Act of 1901, three in particular drew the ire of the regular medical profession. These were osteopathy, chiropractic, and Christian Science healing. Osteopathy owed its birth

to a Kansan, Andrew T. Still, who taught that the human body is a machine which must be in correct adjustment if it is to distribute those natural remedies which the body produces to combat disease. Driven from his home at Baldwin he became an itinerant practitioner in Missouri, eventually settling in Kirksville, where the first college of osteopathy was founded in 1892. If the majority of diseases were due to maladjustments or displacements of the bony skeleton, then manipulation was the most effective cure. Where manipulation was applicable, the results were often dramatic. Gradually, as had been true of homeopathy, standards and teaching in these osteopathic schools improved and the cult wandered closer to the methods and practice of the regular profession. This was not true of chiropractic, another manipulative cult, founded by D. D. Palmer about 1894. Chiropractic was cruder and more violent than osteopathy, teaching that disease arose by the pressure of dislocated bones, especially of the spinal column, upon the nerves of the body. The Christian Science healer, finally, taught the efficacy of prayer and right thinking, holding that disease was a product of the mind.[46]

Osteopaths were permitted to practice in Kansas under the Law of 1901, so long as they prescribed no drugs and performed no surgery. The legislature of 1909 specifically exempted osteopaths from examination in the branches of medicine, requiring only that they present diplomas from approved osteopathic colleges to the Board of Examination and Registration. Chiropractors fought hard for the same recognition two years later and failed only by the narrowest of margins. A state organization of drugless doctors made up of chiropractors, osteopaths, magnetic healers, faith healers, and suggestive therapists was formed in 1911 to battle for the elimination of all bars to drugless practice, and the establishment of a separate medical board. "A medical trust," resolved the assembled healers, "exists in this state which is crushing out all forms of treating disease that do not meet their approval."[47]

In 1913 the chiropractors won an important victory when the Kansas legislature provided for a separate board of examination and registration for chiropractic. Doctors were incensed by what they regarded as Governor Hodge's "betrayal" in signing the bill when they had worked so hard against Hodge's opponent, Arthur Capper, because of the patent medicine advertisements carried by the latter's newspapers. Osteopaths were also given a separate board. But the chiropractic triumph seemed to turn to ashes when the Governor, sustained by the State Supreme Court, refused to appoint a chiropractic board on the ground that the legislation was ambiguous. The new law called for the Governor's appointing to the new board three chiropractors who had been practicing for at least two years in Kansas. Yet prior to the act it had been unlawful to practice chiropractic in Kansas! He would thus be forced to select confessed lawbreakers for these posts. So for two years longer the status of chiropractic continued cloudy until a board was finally appointed in 1915. Ironically it was Arthur Capper, now governor, who made these first appointments.[48]

These events provoked a torrent of criticism from doctors all over the state. Kansas had once more led the nation, but this time in giving legal recognition to chiropractic healers. What would be next? Charles Huffman, who had fought hard in the Senate against these measures, tried to find an explanation for his medical colleagues. Only time and education, he said, would bring the public to the side of the doctors in the war to maintain medical standards. The majority of the public he had always found "on the side of the charlatan working against the medical profession." Part of the explanation was simply poor public relations and failure to use the political potential of the medical profession. While hundreds of drugless healers, driven by the most urgent of motives, were seeking to clear obstacles in their path to winning a livelihood, the average physician was indifferent. "How long," he queried rhetorically, "are we going to

let christian scientists, irregulars and medical what-nots control the destinies of medical progress in the state? The answer is this: Just as long as we fail to see our legislators or rather the candidates before election. . . . Does it not sound strange that we must go into politics to keep humanity from getting sick? But such is an absolute fact. If we want to keep down harmful legislation and get through good legislation, we must have power and that power can be gained only by getting into politics."[49]

During the two-year interim between the Law of 1913 legalizing chiropractic and Governor Capper's appointment of the first chiropractic board the Kansas Medical Society did all in its power to force a reversal in the legislature. Candidates for the legislature in 1914 were asked for their views on medical legislation. Their replies were scrutinized and local doctors were informed of each candidate's stand. A whole issue of the Society's *Journal* was devoted to the forthcoming election. Furthermore, to avoid a completely negative posture the Society shifted to a new strategy. Beginning in 1914 the Society announced its support for the idea of a healing arts board which would examine all candidates for licenses, whether physicians, osteopaths, or chiropractors, in the basic branches of medical knowledge. After approval by this Board of Preliminary Examination, as it was designated, candidates would then turn to the separate licensing boards for medicine, osteopathy, and chiropractic. To avoid bias this Preliminary Board, it was suggested, should be made up of the Chancellor of the University of Kansas and the presidents of the State Agricultural College and the State Normal School. In a letter to the Governor the Society expressed its conviction "that only one standard for all should prevail, and that this standard should insist that any individual who would take human life and public health under his care and supervision should be properly qualified in those fundamentals of present day recognized science, and regardless of the method he may use in treating or

healing, should be able to recognize and distinguish health and disease."[50]

But even this generous compromise was struck down by the legislature in an atmosphere ranging from hostility to indifference. Throughout the 1920's a similar bill was introduced at virtually every legislative session. But almost a half-century of struggle and strain was to pass before the 1957 legislature would finally confirm in surprisingly similar form the forgotten efforts of Huffman and his supporters of 1914.

While the Kansas Medical Society was fighting in the 1920's for a uniform medical practice law, a little-noticed incident in the ill-starred Davis administration portended a far greater battle against quackery at the end of the decade. Governor Davis had already forced Crumbine out of Kansas and fired Sudler when a request came to him in 1924 to extradite one John R. Brinkley to California for practicing medicine with a fraudulent license. According to a Brinkley biographer, the Governor told the California officials who had come to claim the Milford quack: "You go back to California, and tell the people out there to quit worrying about Dr. Brinkley's poisoning them. We people in Kansas get fat on his medicine. We're going to keep him here so long as he lives." Whether this account is apocryphal or not, we do know that Davis later supported Brinkley for the governorship of Kansas. Thus did politics and quackery make common cause and march together.[51]

What manner of man was this that California should seek to bring charges against him after a few months' practice there? He had been born in the hills of North Carolina and attended a country school near his home. After odd jobs, including brief periods of schoolteaching and telegraphy, he entered the Bennett Eclectic Medical School in Chicago in 1908. There he remained for three years but did not graduate, for reasons that are not clear, though later he claimed it was lack of funds. His

whereabouts from 1911 to 1915 are uncertain. In the latter year he was granted a diploma by the Eclectic Medical University of Kansas City, Missouri, a school not recognized by most state licensing boards at the time. Armed with this diploma he was licensed in Arkansas and, by reciprocity, in Kansas in 1916. For good measure Brinkley later added degrees from a diploma mill in Kansas City and the Royal University of Pavia in Italy, which annulled its diploma when the full circumstances of Brinkley's background were known. Following a very brief stint in the Army, Brinkley arrived in Milford, Kansas, in October, 1917.[52]

Here, for sixteen years, Brinkley was the heart and soul of this tiny village. There were fewer than 100 persons when Brinkley arrived. There were no electricity, no city water supply, no sidewalks, and only a third-class post office. This changed overnight. A power plant, water works, a sewage plant, and sidewalks were soon provided by Brinkley. The post office, deluged by Brinkley mail, became a second-, then a first-class station. A small hospital with modern equipment was built.[53]

But this was no ordinary hospital, and Brinkley was no ordinary physician. In January, 1918, he performed the first of his famous goat-gland operations upon a farmer forty-six years of age. The results, he soon announced to the world, were fantastic. Within a year a strong, healthy baby had been born to this formerly impotent man. Now began a tremendous campaign of publicity. Tons of literature were sent out of the little post office at Milford; a powerful radio station KFKB began broadcasting from Milford; well-publicized operations were performed by Brinkley in Chicago and California. Newsreels were shown across the country of one of Brinkley's former patients and his healthy son, appropriately named "Billy." "GOAT GLANDS MAY MAKE GREAT CITY OF MILFORD," read a *Topeka Capital* headline of 1922. Already Brinkley's magnificent new residence in Milford was being jocularly termed "the house that goats built."

Modesty was certainly no characteristic of the literature and radio messages which Brinkley sent broadcast across the plains of central Kansas. To old men he promised rejuvenation; younger men were lured by promises of greater virility; women were assured more joy and satisfaction in their lives; and sufferers of all kinds were prescribed for by the tireless doctor over his own radio station. Listeners would write, describing their symptoms, and Brinkley would diagnose and prescribe for their ills on his "Question Box" program. Several hundred drug stores throughout the Middle West were commissioned to carry his special "prescriptions" from which Brinkley received a return from the druggists. A sample program might contain such Brinkley advice as the following:[54]

Here's one from Tillie. She says she had an operation for some trouble ten years ago. I think the operation was unnecessary. My advice to you is to use women's tonic Nos. 50, 67, 61. This combination will do for you what you desire if any combination will after three months persistent use.

Alarmed Over My Condition. You are 50 with four children, a busy life, and only fair health. My dear lady, you ought to get busy on prescription No. 50 for women, 61 for women, 68, and 79 for women, and don't forget your Maltine, milk and cream, and cod liver oil.

By the middle 1920's Brinkley was at the peak of his power. He was shipping goats from his Arkansas farm at the rate of fifty a month. The normal charge for each goat-gland transplantation was $750. His radio station had more listeners than any in the plains states. His fame had spread across the country. His enormous wealth, reputed to be in excess of one million dollars, caused him to look with disdain on ordinary doctors and their professional ethics. "Dimly he had begun to realize," wrote Brinkley's paid biographer, "that he was gifted beyond the run of doctors, and that he could not be bound by the rigid

artificial ethics of the American Medical Association, the jealous sheep ethics of the leagued allopathic practitioners."[55]

His very success led to his downfall. Unlike the run-of-the-mill quack Brinkley could not be ignored. His great wealth, his blatant advertising, his preposterous claims all militated against it. Everywhere he went his notoriety, his sparkling diamonds, his expensive cars drew attention. From other states and medical associations came queries about Brinkley: Who was he? Did he have a license? Why did Kansas not do something? Even Morris Fishbein, secretary of the American Medical Association and editor of its influential journal, became interested in him.

Fishbein struck the first blow in January, 1928, with a four-page article on Brinkley in his *Journal*. He reviewed the careful research he had made into Brinkley's past and qualifications, his advertising and his claims, and concluded that "John R. Brinkley is a blatant quack of unsavory professional antecedents." Upon receipt of this issue of the *Journal* in Kansas, several moves were set afoot to revoke his license and silence his radio transmitter. The Pratt County Medical Society, which was to lead the anti-Brinkley campaign, resolved on January 16th to demand the revocation of Brinkley's license. At its spring meeting the Kansas Medical Society condemned Brinkley and petitioned the Federal Radio Commission to shut down the Milford station.[56]

But petitions and resolutions made no dent in Brinkley's armor. A few disgruntled clients were induced to sign affidavits of complaints, but Brinkley easily produced ten supporting affidavits for every one against him. A long-range duel between Fishbein, firing salvos from the editorial pages of the *Journal of the American Medical Association,* and Brinkley, returning the fire over KFKB, began. Both sides dug in for a long fight. The Kansas Medical Society slowly began to store up ammunition for a major assault. The Federal Radio Commission began a

Dr. John R. Brinkley and his staff in his operating room and outside his hospital
Courtesy of the Watson Library

THOMAS G. ORR, M.D.
Courtesy of the Photography Department, University of Kansas Medical Center

ARTHUR E. HERTZLER, M.D.
Courtesy of the Kansas State Historical Society, Topeka

painstaking study of station KFKB. An ominous quiet settled down over the battlefield during 1929.

Then, in the spring of 1930, the medical profession found a new and strong ally in the *Kansas City Star,* which dispatched A. B. MacDonald to Milford to investigate the Brinkley affair. By this time the Pratt County Medical Society had sent out 100,000 copies of Fishbein's blistering attacks on Brinkley. But more than anything else it was the widely publicized investigations of reporter MacDonald which brought the Brinkley matter to a head. Brinkley freely told MacDonald that he charged a minimum of $750 for his operations and added: "That is my lowest price. If a man is able to pay more I charge $1,000 or even $1,500." He confirmed that he was shipping fifty to sixty goats monthly from Arkansas but boasted "it won't be long until I am bringing them here at the rate of 1,000 a month." If the Federal Radio Commission interfered with KFKB, he told MacDonald, "I will run five special trains with sleepers and diners to Washington, and take two to three thousand of my patients down there to testify that Dr. Brinkley cured them and made them happy." When asked about the doctors' war against him, Brinkley replied: "They will never close me up. They have fought me for years and I have thrived on their opposition. I defy them now, as I always have. Just say for me to the doctors of Kansas and America who are fighting me, that I am not even worrying. I am happy, am helping people and am making money!"[57]

From Milford MacDonald went to see some of Brinkley's patients. He learned that many were resentful and bitter, feeling that they had been duped. Few reported any improvement; many were worse. He learned, too, how cleverly Brinkley and his staff, including Mrs. Brinkley, played upon the hopes and fears of their patients. One elderly farmer described how he had been misled by the continual radio broadcasts from Milford to go to Brinkley's hospital for an operation. On his train

to Milford out of Union Station in Kansas City were twenty-odd other victims of Brinkley's propaganda campaign. All through the first night the examinations were continued in an atmosphere which would frighten the most courageous. "Some time after midnight," the farmer told MacDonald, "Mrs. Brinkley came to my room and said to me: 'You have a bad case of prostate trouble.' She called it a 'borderline case' and I understood that meant that I was close to the border line that separates life from death. She insisted that I must be operated on at once. I might not live to get home unless I did. She scared me. She guaranteed me that in three days after the operation I would have relief. She had a check all filled out for me to sign. It was for $750. I believe I never would have signed it had she come to me in daylight, but at that uncanny hour of night, with the sick men all limping up and down the halls, lights flickering, examinations going on, I was unduly influenced and I signed it."[58]

Similar stories came from other Brinkley victims. At least five recent deaths at the Milford hospital were found in the records of the Board of Health. On the 2nd of April, 1930, the Kansas Medical Society placed the evidence it had accumulated into the hands of the Attorney-General for prosecution before the Board of Medical Examination and Registration. The complaint against Brinkley was signed by Dr. Louis F. Barney, president of the Society. But even before the complaint was formally presented, the strength of Brinkley's supporters had become ominously clear. First the Attorney-General's office, then the Board of Medical Examination and Registration were deluged with protesting letters and telegrams. The citizens of Milford and the surrounding country rallied to his side. Brinkley himself took to the air to denounce the medical board, the Kansas Medical Society, and the American Medical Association. When Morris Fishbein arrived in Kansas in May to address the Kansas Medical Society, he was met with a $600,000 damage suit

from Brinkley for his earlier articles about him. And Brinkley fought through the state courts, even appealing to the United States Supreme Court, to stay the proceedings against him.[59]

But the dusk had begun to gather about Brinkley's glittering career. Before the state medical board could hold its hearing, Brinkley was summoned to Washington by the Federal Radio Commission to face charges that his radio broadcasting was "not in the public interest." Brinkley honored his earlier promise to pack the galleries with his supporters. Woman after woman from Kansas and Nebraska took the stand to testify that prescription number 40, or 82, or 153 had given her immense relief where all else had failed. Twelve hundred affidavits for Brinkley were read into the record of the proceedings. Druggists selling the Brinkley prescriptions came to testify on his behalf. But the commissioners were more impressed by the evidence of Dr. E. S. Edgerton, new president of the Kansas Medical Society, and a Johns Hopkins University professor of urology, Hugh H. Young, who gave expert testimony that Brinkley's operations and his long-distance prescribing were equally fraudulent. On June 13, a renewal of Brinkley's federal license for KFKB was denied. The Commission upheld the view that "by virtue of a license obtained by fraud, the imposter holding it is fleecing the defective, the ailing, the gullible, and the chronic medicine-takers who are moved by suggestion, and is scandalizing the medical profession and exposing it to contempt and ridicule."[60]

Brinkley was down but not out. He now wildly charged that President Hoover had used his influence against him with the Commission, which was already heavily bribed by the American Medical Association. The Commission's ruling was appealed by Brinkley lawyers to the federal courts. But before he could rise from this blow, he was forced into the packed hearing rooms of the Kansas Board of Medical Examination and Registration for the most sensational medical hearing ever held in Kansas or, for that matter, the United States.[61]

Here was drama of the first order. The contestants stood, perhaps knowingly, for larger causes than the immediate issue at hand. On the one side were marshaled the forces of pretension and empiricism in medicine, the innocent unknowing, the champions of the underdog, and the extreme libertarians. Across from them were aligned the exponents of caution and science in medicine, the enlightened classes, the partisans of restraint and public order. To the doctors the issue in this struggle was clear: Quackery versus Scientific Medicine; anarchy versus professional standards. But in the public mind this was confused with sympathies inspired by Brinkley's seeming piety and courage, his defiance of the medical profession, and vague resentments against medical men. And the whole trial was spiced, of course, with the titillating character of the revelations concerning the Brinkley patients.

For two solid weeks the Brinkley hearing crowded all other news from the front pages. This despite the fact that it was a pivotal election year. On the first day more than a hundred persons, half of them women, sweltered and sweat in the packed hearing room, craning their necks and straining their ears to catch all possible details of "goat gland transplantation." The prosecution led off. Testimony was repeated of useless operations, terroristic methods, and the scientific infeasibility of goat-to-human transplantations. A deposition from a former Brinkley nurse, charging that Brinkley was a fraud, was read. In an affidavit Dr. William J. Mayo of the Mayo Clinic affirmed the impracticability of animal-gland transplantation in the clinical practice of surgery. A chief surgeon at Johns Hopkins wrote: "The operation is not possible." Two pioneers in experimental gland transplantation, H. Lyons Hunt of New York and Max Thorek of Chicago, both cited in Brinkley publications, sent in affidavits denouncing Brinkley. Faculty members from the University of Kansas School of Medicine, including Thomas G. Orr

and Nelse F. Ockerblad, well-known surgeons, echoed the testimony and affidavits of the outside doctors.

Then began the procession of satisfied Brinkley patients and radio listeners. One 68-year-old man offered to jump over a table in the hearing room to prove his new-found agility. Brinkley partisans cheered when another witness shouted: "Brinkley might be a mill diploma man but I believe he has a lot more sense than some other doctors." Wealthy Oklahoma, Colorado, and Missouri stockmen, a high school janitor, a Missouri banker, and aged men from a dozen states came in seemingly endless procession to the witness stand as the hot, stifling atmosphere grew more emotional and intense. Finally, the round of Brinkley testimonials was halted by the Board and Brinkley himself was brought to the stand. Calm and collected, the only man in the hearing room in a suit coat, Brinkley coolly defended his operations ("as an aid to general health"), his advertising ("the medical societies refused to recognize his claims"), and his radio prescribing ("demanded by radio listeners and druggists"). He invited the Board to come to Milford to witness one of his operations. This invitation was accepted, the Board adjourning on July 31 to meet at Milford on September 15.[62]

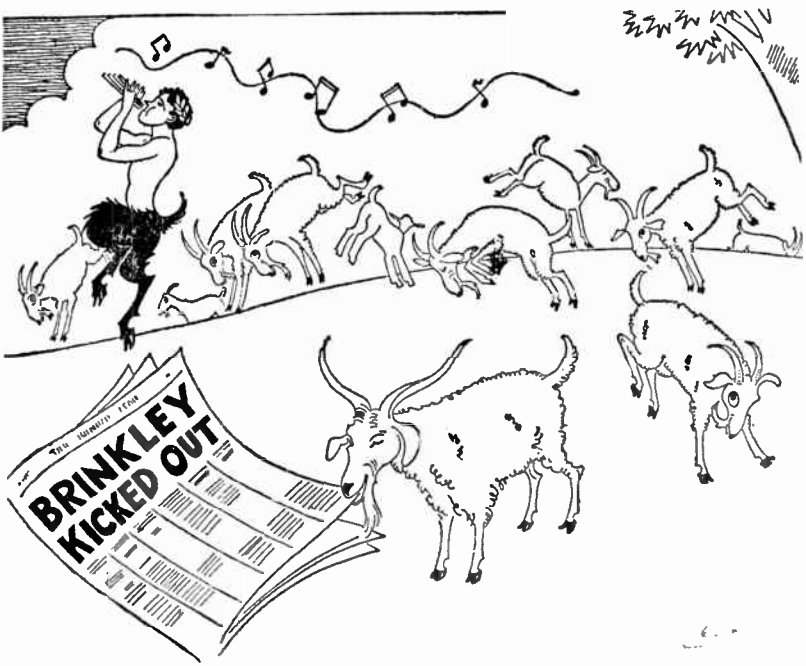
At the Brinkley Hospital in September members of the Board and a half-dozen other visiting specialists watched carefully as Brinkley performed two of his famous operations. There was no question that Brinkley actually transplanted goat glands on this occasion into the bodies of his patients. He was apparently not affected by his critical audience, since he lectured his visitors continuously during the operations and concluded by inviting the doctors to send any of their patients who needed such care to Milford. The visiting specialists were unanimous in their verdict: this was not the operation described in the Brinkley literature and was of no possible value in cases of enlarged prostate or in rejuvenation. Professor Thomas Orr of the Medical School said that the sterility of the entire proceedings was "question-

able." Two days later the Board found Brinkley guilty of "gross immorality" and "unprofessional conduct."[63]

Doctors who thought the book was now closed on the Brinkley affair were in for a rude shock. The ink was scarcely dry on the order revoking his license when Brinkley announced that he would run as an independent for the governorship of Kansas. All of the massed support for Brinkley which had been marshaled into the hearing room would now be turned loose in the wildest, most frenzied gubernatorial campaign in the state's history. If the Law and the State had blocked his climb to wealth and power, he would himself become the Law and the State in Kansas! All the audacity, wealth, fundamentalist religious appeal, and fanatical loyalty which Brinkley commanded were now thrown into a mad, desperate bid for the state's highest elective office.[64]

Did he have a chance? The political savants said no. He had no organization, he had started late, and worst of all his name would not appear on the ballot. Every vote for Brinkley must be a write-in vote with his name properly spelled and the appropriate box checked. And Brinkley's slim hopes were pinned to an unlettered multitude which had long since cast its last glance at the inside of a schoolroom.

But Brinkley fought furiously against the odds. Over KFKB, whose license had been temporarily restored pending a final court appeal, he reached thousands of voters daily. Prayers, hymns, and sermons were interspersed with his appeals for a holy crusade against the Powers That Be in Topeka. Across the state he flew in his private plane, landing in private fields and cow pastures to address hastily assembled crowds. To Wichita he came in late October, dropping out of the skies into a cow pasture fifteen miles east of the city, where a crowd of perhaps 35,000 people awaited him. He was introduced as the "Moses, who has come to lead us out of the wilderness." An astute reporter captured the symbolism and charged atmosphere as



From the *Kansas City Star*, September 21, 1930

Brinkley made his way to the platform: "Healer, rejuvenator, lover of little children, prophet of false hopes and destroyer of the aged, he passed through the crowd to the narrow scaffold reared for him by farmers. It was a veritable muezzin's tower, so tall it was. Men with crutches, women with goiters, all of his constituency, cried out as he went by." His theme was the Easter story. Hymns were sung; prayers were offered. Then he began his sermon. "I, too, have walked up the path Jesus walked to Calvary. I have spent much time in Palestine and Jerusalem. I stood in the Savior's tomb. I know how Jesus felt." He, the latter-day Savior, would build children's hospitals; he would create artificial lakes for the multitudes; he would drive the politicians from the State House; he would heal and save.[65]

His platform was simple: reduce taxes, abolish "unnecessary boards," lower the automobile license fee, introduce a drastic

economy into state affairs, end graft and incompetence, give free school books to the children. He exploited the Pollyanna statements of the two regular parties that Kansas was not suffering and that prosperity would soon return. Their assurances, read Brinkley's platform, "cannot alter the fact that grain is rotting on the ground and in storage while miners' children need bread . . . [and] do not give work to clerks laid off because of lack of business, nor aid the businessman whose trade has fallen to low ebb." As for the doctors, every practitioner in the state, he wrote, should be examined once each year as to his physical fitness to practice and at least once every five years as to his knowledge and ability in surgery and medicine. Thus would Brinkley bring his adversaries to the same bar of judgment which he had confronted.[66]

By mid-October a few observers were taking Brinkley's candidacy a bit more seriously. Estimates of his write-in vote ranged from a few thousand to fifty thousand votes. Cliff Stratton, political columnist for the *Topeka Capital,* was closer to the final result when he placed a maximum of 125,000 votes on Brinkley's magnetism. On election day, 1930, more than 617,000 Kansans trooped to the polls, a huge number for a non-presidential election. What did it mean? When the dust had cleared, the election commissioners had counted an incredible 183,278 write-in votes for Brinkley! This was only 34,000 less than the number of votes for the victorious Harry Woodring, who had edged out the Republican, Frank Haucke, by 250 votes. Most observers were agreed that at least 30,000 Brinkley votes had been thrown out, and perhaps as many as 50,000. All were certain that if Brinkley's name had been on the ballot he would have sat in the Governor's chair in January. Brinkley even polled 20,000 unsolicited votes in Oklahoma on election day![67]

Doctors took a deep breath as they thought of the near-catastrophe. Without question Brinkley's election would have set the clock back a half-century in Kansas medicine. All the hard-

fought gains of the Kansas Medical Society would have been wiped out overnight. But was the danger over? Brinkley now threatened to run as a regular candidate in 1932. Why had almost one of every three voters in Kansas cast their ballots for this shameless pretender? Everyone had an explanation. Nearly all were agreed that the growing depression in Kansas and the feebleness of the programs of the two old parties had been an important factor. Some were certain that Brinkley's magnetic personality, his powerful radio transmitter, and his religious fundamentalism were the big factors. Others pointed to the *Kansas City Star's* meddling in Kansas affairs and Brinkley's "persecution" by the Medical Board. The *Star* itself thought that "part of the Brinkley downpour was a Rabelaisian burst, heavy sarcasm, a sporty determination to let the old-line parties go hang and let a radical blow things to the skies if he desired." Certainly the Kansas Medical Society was worried. Were there 183,000 people in Kansas opposed to the enforcement of the medical practice law? Would Brinkley go on to the governorship in 1932? The editor of the *Journal* expressed, too, a fear that the new legislature would try to repeal all the medical practice laws of the state in retaliation against the doctors.[68]

Actually, Brinkley had passed the crest of his power on election day. His further appeals for restoration of his medical and broadcasting licenses were all denied. The legislature made no attempt to interfere with any law affecting medicine. Though Brinkley established in Mexico the most powerful radio station in North America, the government cut down his plans to run a special wire to Milford and later induced the Mexican authorities to shut the station down. When he ran once more for governor in 1932, he polled more votes than two years before, but his share of the total had not risen. And this time, moreover, his name appeared on the ballot.[69]

The dark night of obscurity fell upon Brinkley after 1932, brightened only here and there by the flickering publicity of

damage suits and new harassments against him. He moved to Del Rio, Texas, in 1933, across the Rio Grande from his radio transmitter, and less and less was heard of him in Kansas. The Brinkley Hospital was razed for salvage and Milford's largest industry fell with the debris. In 1942 death mercifully intervened as bankruptcy proceedings, federal charges of mail fraud and tax delinquency, and damage suits from former patients swirled about his head.[70]

What lessons had the Kansas doctor learned from the Brinkley tornado? He found first of all that quackery was by no means dead in Kansas. Scientific medicine had in fact made little impact on the public's willingness to patronize cultists, irregulars, and even such flagrant quacks as John R. Brinkley. It was cures, real or imagined, that the public sought, showing little interest in scientific knowledge of disease and body processes, or understanding of either. More public understanding of health, disease, and medical practice became a vital necessity. The Brinkley experience had shown that quackery was especially dangerous when mixed with religion and even more dangerous when mixed with politics. Did this mean that organized medicine should play a larger role in politics to defend its interests, or try not to become involved at all? The answer was by no means clear. Finally, the Brinkley episode showed that however great the forces deployed in defense of quackery a strong attack carried through with resolution and well-fortified documentation stood a good chance of success. Certainly the Kansas doctor owed a real debt of gratitude to Drs. Barney and Edgerton, the members of the State Board of Medical Examination, the Medical School experts, and Dr. Fishbein and others outside Kansas for the risks they took and the courage they displayed in a battle which could well have been lost.

By 1932 the years of turmoil and tumult had reached their dusk. The Dark Decade in the history of Kansas medicine was

drawing to a close. This period had opened and closed with severe political storms; throughout there had been uncertainty, failing morale, and setbacks to long-established programs and plans. It had been an era of testing and crisis, of alarm and insecurity. Doubts arose for the first time of the mission of Kansas in the medical world. None would say that medical practice, public health work, institutional care, and medical education had bounded forward with great strides. Crumbine was gone; and the equilibrium of the Board of Health had been only partly re-established. The Medical School had regained its keel but no one knew where the compass was pointed. Brinkley had been beaten; but would others spring up to take his place?

In retrospect the picture is clearer. The years between 1923 and 1932 were years of transition and marking time. Behind the Kansas doctor lay the scientific revolution of the 1880's and 1890's and the shining years of progress in health work under Crumbine; before him lay years of quiet progress leading to a new burst of energy and achievement in the late 1940's and 1950's. To these intervening years of quiet progress, marked by depression at home and later by war abroad, we must now turn.

V

The Kansas Doctor in Depression and War (1932-1945)

THE YEAR OF BRINKLEY'S SECOND DEFEAT found the United States deep in the most calamitous depression of her history. Growing unemployment and bloody strikes, low prices and high tariffs, closing factories and lengthening breadlines, dwindling savings and increasing foreclosures all dramatized the seriousness of America's economic plight. Farmers and laborers, who had not generally shared in the glittering prosperity of the 1920's, were now joined by millions of others in their demands for relief, recovery, and reform. Though Kansas had suffered less than states farther east, her farms and small industries were feeling the pinch of depression in earnest by 1932.

Out of economic disaster grew political revolt. From the Kansas Republican Committee came the word that Herbert Hoover could not carry Kansas. "The voters are in open revolt against the national administration," reported the Committee secretary. "The farmers feel that the administration has ignored their plight." To Topeka in 1932 came Franklin D. Roosevelt with promises of a new farm program. That fall Roosevelt would join the select circle of Democrats to be endorsed by Kansans for the Presidency.

Parallel with Roosevelt's national New Deal were the efforts of Alf Landon and the Kansas legislature to revive the sinking economy after 1933. Like Roosevelt, Landon was given near-dictatorial power in the unprecedented emergency. Both parties supported Landon in the crisis as they did Roosevelt nationally. Banks, insurance companies, and building and loan associations all fell under Landon's augumented authority. He worked closely with federal officials to save Kansas banks. A rigid economy program was adopted at the State House, taxes were cut

drastically, and many state positions abolished. A relief act which permitted Kansas counties to raise two million dollars for the unemployed was hustled through a special session of the legislature. Farmers were cheered by a mortgage redemption act after seven thousand Kansas farmers had lost their land. With Landon's re-election in 1934, the only Republican governor so re-elected, he became a formidable candidate for larger office. In 1936 this Kansas Progressive was inundated in the tidal wave of votes for the unbeatable F.D.R. Even Kansas deserted her favorite son.[1]

These "years of the locust" left their mark upon the Kansas doctor as upon all other citizens. Reception rooms were unfilled, appointment books more or less blank, and telephones more silent than any time in years. Checker and cribbage boards were dusted off and put back into action. Members of the profession were drawn closer together by the unwonted idleness. Not a few doctors were themselves forced onto the relief rolls. It was, wrote the editor of the Sedgwick County *Medical Bulletin,* "the most serious time this generation of doctors has known." Most threatening of all was the desertion of long-time patients for other doctors in the embarrassment at not being able to pay old bills, let alone pay for new services. Yet every doctor knew that he was not alone and that his colleagues faced the same problems. "Chins up," the Sedgwick County doctors were urged, "no matter how slow collections are, no matter how scarce money is, your neighbor to the right, to the left, fore and aft is in the same boat."[2]

Loss of patients and income was only the beginning of the upset in routine which the Great Depression brought to the practice of medicine in the state. For the first time in memory there were more idle beds than patients in the hospitals of Kansas. All private hospitals, especially the doctor-owned institutions, were dealt a shattering blow. The federal government, through its Public Works Administration program, became the leading

hospital-builder in the state. Four new buildings went up at the University of Kansas hospital at Rosedale, financed in considerable part by P.W.A. funds. Federal money helped, too, in the building of waterworks, filtration plants, sanitary sewers, and laboratories. State hospitals and the Board of Health, long starved for appropriations, were the first to feel the economy axe. New buildings and improvements sorely needed at the state hospitals were deferred until World War II provided a new excuse for legislative neglect. Finally, the routine of medical practice in these years was continually disturbed by various proposals for a system of government health insurance, which must inevitably affect powerfully the private practice of medicine in America.[3]

Schemes for insuring medical expense were by no means new, although the Great Depression gave them a new urgency and a larger following. Even before World War I a few scattered industries were providing medical care for their workers, and insurance companies were offering disability benefits for loss of earnings in sickness. A number of states had also begun to adopt programs of workmen's compensation for industrial injuries. There had grown up, too, by 1915 a well-organized national campaign to introduce compulsory health insurance, financed by payroll deductions, into the various state legislatures. Between 1915 and 1918 health insurance bills were debated in fifteen states but in each case turned down. An editorial of 1915 in the *Journal of the Kansas Medical Society,* however, expressed a widely held view that some form of health insurance was probably inevitable. "It is not improbable," the editor wrote, "that in a few years at least, the medical profession will have an opportunity to try out some plan of sickness insurance under federal supervision."[4]

But by 1920 the mood of the doctors had changed. From tentativeness, even mild approval of some system of health insurance before the War, medical groups became increasingly

sharp in their criticisms and reservations after the war. Particularly the idea of compulsory insurance under state auspices came in for strong denunciation. Why the shift? For one thing Germany, the prime example of a nation with a state health system, had been crushed in a war against statism and autocracy. More study of the German and the English health insurance programs, as well as those introduced in America, moreover, convinced many doctors that their stake in private medical practice was larger than they supposed. Critics pointed to the shrinking role of the doctor in administering his own practice, cumbersome governmental controls, and the inefficiency and waste in the state health insurance proposals. Should the doctor trade liberty for security without a fight? And was there no way to remedy the admitted shortcomings of private medical practice without compulsion from the state? Finally, the national return to conservatism in the 1920's re-enforced the growing objections of the doctors. The administrations of Harding and Coolidge reflected the American's desire for an end to social experiment and a return to "normalcy."[5]

One by one the local and national medical associations took their stand after 1920. The American Medical Association resolved against all compulsory health insurance plans which were "provided, controlled, or requested by any state or the Federal government." This action was mirrored in a dozen resolutions and articles issuing from state and county societies in Kansas. A Chicago doctor warned the McPherson County Medical Society in the fall of 1920: "Are you thinking of compulsory health insurance as some intangible fancy of some dreamer's brain—or as something tried and found wanting in Germany and condemned in far-off England—something that could never gain a foothold in this land of liberty and justice? Listen to me. Compulsory health insurance is at your very door! New York and Ohio have barely escaped it—and only for the present—and at this moment powerful interests are at work preparing for its

introduction into Illinois. . . . Wake up, men of medicine—bestir yourselves before it is too late."[6]

Actually the threat was receding by the time the Chicago visitor spoke. During the 1920's no bill was introduced in Congress or any state legislature on behalf of compulsory sickness insurance. Kansas doctors, so far as they were concerned with the economics of medicine, were far more worried in this period about the growth of free clinics and various contract practice arrangements. Clinics sponsored by the Medical School, hospitals, local school boards, and the Board of Health came under fire if they were not expressly approved and supervised by the local county medical society. In 1928 the Medical School discontinued its orthopedic clinics in the state under pressure from the Kansas Medical Society. Doctors felt with some justice that every free clinic service offered to those able to pay put other agencies in unfair competition with the private practitioner. So far as contract practice was concerned, medical societies in Kansas were quite concerned with the growing number of physicians who contracted with a business firm or a group of their patients to furnish medical care for a fixed sum. "In either case," reads a contemporary editorial in the *Journal of the Kansas Medical Society,* "an indefinite—perhaps an unlimited—amount of service is promised for a limited and definite amount of pay." It was thus not the principle of insurance to which the doctors objected, but the loss of professional control over the conditions of practice, especially the setting and collection of fees.[7]

But even before the stock market crash of 1929 new moves were afoot to study and re-examine the practice of private medicine in America. The great private foundations, in particular, were engaged in the support of several projects relating to medicine. A national Committee on the Costs of Medical Care, headed by Dr. Ray Lyman Wilbur, a future member of Herbert Hoover's cabinet, began a five-year study of the rising expense of medical care in 1927. The twenty-eight reports and mono-

graphs of this Committee brought a new focus of attention to the problems of medicine. The cost of medical care, it was clearly shown, had indeed risen. There was new evidence of the correlation between income and the amount of medical care received; and there was reflected in these reports a growing concern for those whose incomes or pride barred them from charity, yet who could not face the expense of a catastrophic illness.[8]

What could be done? The growing depression after 1930 made the question a pressing one. In Kansas, the position of the medical profession in the great debates of the 1930's and after can be quickly summarized. Doctors insisted, first of all, that it was not their fees but the tremendous rise in hospital costs and services which had plummeted the cost of medical care skyward. Doctors' fees had in fact not kept pace with the cost of living during the 1920's, argued the *Journal of the Kansas Medical Society*. This was admitted, too, by many critics of organized medicine. Secondly, whatever the defects of private medicine, doctors argued that government insurance would be no improvement. If some sort of insurance were indeed necessary, why should it not be on a voluntary basis? Since the exponents of reform argued that it was the middle classes, not the wealthy or the indigent, who suffered most under private medicine, why could these white-collar and laboring classes not be induced to buy insurance against sickness as well as against death? Finally, spokesmen for the doctors insisted that any insurance scheme for medical care should not be taken out of professional hands. The power to set fees, they argued, was the power to control and even destroy.[9]

In a calm and reasonable analysis in 1930 Dean Harry Wahl of the Medical School analyzed the misunderstanding on both sides. The public, he wrote, blamed the doctor for the rising cost of medical care; while the doctor was equally certain that free clinics and unnecessary hospital and laboratory expense were robbing him of a fair income. Contrary to what most doc-

tors thought, said the Dean, the average man goes to a clinic by necessity and not by choice. Less than 5 per cent of clinic visitors, he estimated, were taking unfair advantage of the low-cost or free care offered them. "The average man resents the imputation of accepting charity and wants to pay if he can." As for the high cost of medical care, Dean Wahl concluded, "the fact is that the cost of medical care is not high when considered in the light of its importance, the trend of modern times [and] the price the public pays for its luxuries. . . . Health is of the greatest importance to the public yet the cost of its maintenance is much less than what it expends for candy, tobacco, the motor car or the movie. There is no public clamor against the high cost of candy or tobacco!"[10]

When the Committee on the Costs of Medical Care released its final report in 1932, the medical profession studied the final conclusions with much interest. Most controversial was the conclusion of the majority of the Committee that the costs of medical care should be placed on a group payment basis, either through insurance or taxation, or both. Few Kansas spokesmen went so far as Morris Fishbein in denouncing the majority report—he called it "socialism and communism—inciting to revolution" in an editorial in the *Journal of the American Medical Association*—but there was little enthusiasm or support for the idea of a compulsory health plan. Topeka doctors interviewed by a *Capital* reporter were almost unanimous in their denunciation of compulsory insurance. Various doctors mentioned such reasons as stifling of initiative, loss of personal touch with patients, care already being given the poor in clinics and hospitals, and destruction of such historic values as competition and free enterprise. Sedgwick County doctors, according to an article in their *Bulletin,* were "not inclined as a whole to take an attitude of militant antipathy against the national committee's recommendations." If health insurance were necessary, the article concluded, it could best be administered by the doctor himself

through his medical associations. Most of the medical spokesmen of 1932, however, seemed convinced that some sort of prepaid sickness insurance was inevitable and that the doctors had best be prepared to offer a plan of their own choosing.[11]

There was a widespread fear on the part of physicians that health insurance would be included in the social proposals which President Roosevelt, at the peak of his power and popularity, put before Congress in 1935. The incoming president of the Kansas Medical Society, Howard L. Snyder of Winfield, warned that this was the "one big issue confronting us." A Committee on Economics was created to study the many economic issues affecting the profession, while a considerable portion of each issue of the Society's *Journal* was now given over to "medical economics." There was a sigh of relief when the Social Security Act proposed to Congress was found to contain no recommendation for health insurance.[12]

In the meantime the Kansas Medical Society was co-operating with federal officials in the administration of medical care to relief families. Under the Federal Emergency Relief Administration the county medical society in a number of instances was made officially responsible for the medical care of relief patients. The society was reimbursed by local authorities at the rate of one dollar per month for the care of each family on relief. These funds were divided among participating physicians. Most doctors approved this program because it maintained the doctor-patient relationship and kept the care of the sick in the hands of the local profession.[13]

By 1938 a number of variations of this plan for medical care of the indigent were in operation. In fifty-five counties of Kansas a county physician or physicians were paid salaries by local authorities. In forty other counties a number of participating doctors were paid fees for their services according to a schedule usually set in agreement with the county medical society. Finally, eleven counties still relied directly upon the county medi-

cal society to furnish medical services to relief patients, for which the county paid a lump sum into the society's treasury at stated intervals. A committee of the State Board of Social Welfare recommended in 1938 that this last plan be adopted as the most desirable and efficient. That care of those receiving local or federal assistance was still a mammoth problem is attested by figures for 1938 which show nearly 20,000 on the relief rolls in Shawnee County alone, with only one county physician to look after their health. In 1942 the Shawnee County Medical Society took a bold step forward in assuming complete medical and hospital care of these indigent persons in return for a payment of three dollars per month from each of the families concerned. In all, more than 90 per cent of eligible families paid this fee the first month, while the county welfare department assumed the remainder. This was the first time in Kansas and almost in the United States that a county sought to guarantee such complete medical and hospital care, including drugs and all necessary tests, to its unemployed. Another emergency health insurance plan was started in Western Kansas in 1939 and included more than one thousand Farm Security Administration clients. With all fifty-five physicians in a nineteen-county area taking part, the participating farmers were assured emergency medical and hospital care for themselves and their families for thirty dollars per year.[14]

While the Kansas doctor was thus willing to play his part in voluntary insurance programs to relieve human suffering, he continued to fight government health insurance as well as voluntary programs which were not under the control of medical societies. By the late 1930's a new wave of pressure and agitation for some form of government health insurance was sweeping across the nation. The United States Public Health Service undertook in 1936 the most extensive survey of illness in America ever attempted; a group of well-known doctors formed a Committee of Physicians in opposition to the policies of the American Medical Association; school children in Kansas and elsewhere

were debating such topics as "Shall the State Pay the Doctor Bill?"; a National Health Conference was held in 1938 at President Roosevelt's suggestion, following which the first national compulsory insurance bill was introduced into Congress.[15]

Each of these developments found its echo in Kansas. Spokesmen for the medical profession denied that any considerable number of Kansans were forced to go without medical care. The *Journal of the Kansas Medical Society* approved the censure of the reformist Committee of Physicians by the American Medical Association. But there was cause for alarm. Only one of every three Topeka teachers would give a definite "No" in 1938 to the question: "Do you favor socialized medicine?" Almost half were sure that they wanted it. The National Health Conference was almost unreservedly condemned by doctors. Kansas critics charged that delegates were hand-picked, that the Roosevelt Administration was using the Conference for political purposes, and that spokesmen for organized medicine were invited, not to be listened to, "but to be held up as callous obstructionists to pure and noble altruism." The editor of the Sedgwick County Medical Society organ was now certain that the handwriting was on the wall. Organized medicine, he warned, had better have a doctor-controlled plan ready to put into action if necessary.[16]

After 1940, the profession was constantly on the defensive against enactment of a national system of health insurance. By the close of the Second World War the campaign for federally subsidized medical care had gained considerable momentum. In November, 1945, the Murray-Wagner-Dingell health bill was introduced into the Congress following a plea from President Truman. This plan proposed a 4 per cent payroll tax on the incomes of all persons earning less than thirty-six hundred dollars annually to cover all costs of medical care; it called also for a rapid extension of public health services and federal aid to medical education and research, but these features of the bill were

largely forgotten in the ensuing controversy over compulsory health insurance. The fight against the medical insurance provision of the Wagner bill was led by spokesmen for the American Medical Association, who enjoyed the support of the American Bar Association, the American Hospital Association, a good proportion of the press, and a number of insurance and drug firms. Backers of the program included organized labor, the American Public Health Association, some farm groups, and the Association of Internes and Medical Students. The fight was furious, but defenders of private medicine won the day. For another five years the controversy dragged on as new bills were introduced, until the forces working for government health insurance finally admitted defeat.[17]

One major reason for the defeat of government insurance was the growing popularity of voluntary hospital and medical insurance plans approved by state medical associations. In Kansas the Blue Cross Hospital Association enrolled its first members in May, 1942. From the first it was a huge success, reaching 100,000 members in May, 1945. After the War, enrollment climbed swiftly and continuously to May, 1958, when over 570,000 Kansans were members. Likewise, the Blue Shield plan for surgical and limited medical care, sponsored by the Kansas Medical Society, attracted members rapidly following its inauguration in January, 1946. By 1948 the 100,000 mark had been passed, and a decade later over 516,000 would be enrolled.[18]

Here was the medical profession's answer to federal health insurance and the public clamor for more opportunity to guard financially against sickness. Was it enough? No one would argue that Blue Cross and Blue Shield had solved for all time the problems of medical economics which had come to the fore in the Great Depression. A broader coverage was obviously desirable; additional services particularly in diagnosis and prevention were likely to be demanded in time; many diseases were still outside the terms of coverage; catastrophic illnesses of long duration

still took a terrible toll of a family's resources; and the new plans had not as yet withstood the test of a major economic crisis. Essentially, however, the Kansas profession had taken a decisive and bold step in the direction of providing more medical care for more persons. Tenaciously and successfully, the Kansas doctor, like the American doctor generally, had at the same time clung to the pioneer ideals of individualism, professional liberty, and free enterprise in an age when government was playing an ever-larger role in the day-to-day affairs of mankind.

While much of the effort of the Kansas Medical Society during these years of depression and war was thus channeled into the fight over health insurance, there was much else to do. Studying new legislation, promoting public relations, conducting an annual meeting, stimulating local societies, and running a monthly journal all took a great deal of time. In 1934 Dr. William M. Mills put on the editor's mantle which William McVey had worn so long and with such distinction. The annual meetings were attracting close to a thousand doctors each spring. Some doctors, notably those from Wichita, became increasingly dissatisfied with these annual meetings and sought a wholesale reform of the Society. The reformers wanted more frequent Council meetings, a lay executive secretary to care for the Society's growing affairs, and fewer general sessions at the annual meeting. Some members of the Society were labeling the Wichita men "a group of Bolsheviks" for their zeal in the cause of reform. Yet most of their proposals were adopted within a surprisingly short time. At the 1934 meeting held in Wichita a series of morning clinics were held, followed by several round-table discussions during the luncheon period. That same year the Society approved the hiring of a lay secretary who was expected to improve the annual meetings further, foster good public relations, and keep a close watch upon the political pulse of the state from his Topeka office. Clarence Munns was named the Society's first execu-

tive secretary in 1934. He was followed by Robert Brooks in 1942 and Oliver Ebel in 1944. Ebel had held a similar post for the Sedgwick County Medical Society, which not only employed an executive secretary, the seventh medical organization in the nation to do so, but was publishing a monthly bulletin and operating a physicians' telephone exchange by the 1930's.[19]

Aside from health insurance, the most acute problem to plague the Kansas Medical Society in the 1930's and 1940's was its warfare with the osteopaths of the state. Fighting for their livelihood in the depression, the osteopaths sought to extend their practice to surgery and drug therapy. Together with chiropractors they tried to force themselves into all tax-supported or tax-exempt hospitals. They asked each new legislature for approval of their ambitions. For its part the Kansas Medical Society continued to work for a basic science law which would assure a minimum of scientific training in each cultist. Its spokesmen insisted that their fight was not with the cults *per se* but with ignorance and inadequate training in all who cared for the sick. William L. ("Young Bill") White expressed the view of the doctors when he wrote in 1935 that "as it now stands, any man who will pay tuition and take a six-week course in some wild healing cult, and who then passes the childishly simple examination ordained by the leaders of this cult in its own phoney kind of science, is thereupon licensed by the state to hang out his shingle and practice for his personal profit the art of healing upon the people of this state."[20]

The real fight began in 1936 with a test case in Riley County by the Board of Medical Examination to determine whether osteopaths might legally prescribe drugs and perform surgery in Kansas. There could be no question that many were doing so. But was it lawful? This could be determined only by examining the intent of the lawmakers of 1913 who had framed the Osteopathic Practice Act. But at this earlier date the osteopaths were themselves ridiculing drug therapy and claiming the right to a

special healing board on the strength of their peculiar views of etiology and therapeutics. In its January term in 1938 the Kansas Supreme Court laid down its ruling. An osteopath was not a doctor of medicine according to the law; he could not give drugs nor do surgery except as part of the osteopathic system of healing.[21]

While this judicial contest was in progress, a strenuous effort was made to push a basic science act through the 1937 legislature. Generous concessions were made to those already possessing licenses; they would in fact not be required to take the examinations in anatomy, physiology, chemistry, bacteriology, and pathology which were called for by the proposed law. Hereafter, however, every new practitioner, whether physician, osteopath, or magnetic healer must prove himself in these basic sciences. But in the fires of legislative combat the osteopaths and chiropractors were exempted from the final bill. That there was still great need for such a law, however, was borne out by a research study of the Kansas Legislative Council in 1937 which revealed that there were at least thirty breeds of unlicensed healers practicing in Kansas! These included astral healers, biodynamo-chromatic therapists, electro-homeopathists, naturopathists, electronic therapists, and sanipractors. One medical student sent out to one of these strange healers reported the following experience:[22]

He placed a metal band on my left arm and told me to hold the other metal pole in my right hand. (Behind his back I suspended the pole with the attaching wire). He then started to move different dials with one hand and rub a glass plate before him with the other and rapidly to read off numbers which his assistant took down on a blank form. . . . After filling the sheet with numbers, he told me that I had intestinal worms. He said that this condition always showed up through cancer, tuberculosis, ulcers and diabetes and that he never missed a diagnosis. He said these worms had invaded my gall bladder and urinary bladder and also caused an inflamation [*sic*] of my heart muscle. He said I had five units of toxicity, a small gastric ulcer and a very low vitality.

Following the osteopathic defeat at the hands of the judiciary a major legislative battle took shape in 1939 when the osteopaths besought the legislature to bring drugs and surgery within their lawful practice. The Kansas Medical Society, led by its executive secretary, Clarence Munns, brought every possible pressure to bear against the bill's passage. Members of both houses were deluged with letters and petitions, most of them favoring the osteopaths. One newspaper commented that no legislative issue since 3.2 beer had stirred so much controversy. The osteopaths had a strong case. They argued that twenty-five Kansas towns had no doctors other than osteopaths and that the court ruling had cut them off completely from medical care. Whatever osteopaths believed in 1913, moreover, they now clearly put as much faith as the regular doctors in drugs and surgery. Other states, it was contended, gave osteopaths the right to practice medicine and surgery.

But the arguments of the Kansas Medical Society proved more persuasive. Munns contended that the Society did not seek to interfere with the practice of osteopathy but only to stop osteopaths from practicing medicine and surgery for which they were not qualified. Any osteopath desiring to practice medicine could qualify before the Board of Medical Examination, just as regular doctors were forced to do. A departure from the law and the principle of separate licenses would reduce a medical degree in Kansas to meaninglessness and invite osteopaths from a dozen states into Kansas. Finally, there were more citizens in those twenty-five Kansas towns who journeyed elsewhere to be treated by regular physicians than visited the osteopaths at home. When the smoke of battle had cleared over the embattled legislature the osteopaths were forced to admit defeat.[23]

In 1941 and biennially thereafter the osteopaths of Kansas renewed their fight to enlarge their lawful prerogatives. Each time the lawmakers cut down their efforts, sometimes by a narrow vote. The outbreak of World War II gave them added am-

munition as more and more Kansas communities were stripped of their medical doctors. But defenders of the medical profession fired back that the regular physicians had gone to war and were "not here to protect themselves." A pitched battle in 1943 before a crowded gallery in the House resulted in a 60-40 vote against enlarging the rights of osteopaths. Many farmer-members fought hard for the change and one emphasized its seriousness when he told his colleagues: "Your verdict may decide the deaths of many Kansas citizens." By the close of the war the shortage of doctors had become so acute that the pressure on those osteopaths who were practicing medicine and surgery despite the law was greatly relaxed. In 1945 osteopaths succeeded in getting bills through the House allowing them to administer narcotics and take medical board examinations, the latter with Kansas Medical Society support, only to have both bills killed in the Senate. It was now clear, however, that osteopathic support was growing and some kind of compromise would ultimately be necessary.[24]

Much has already been said of the impact of the Great Depression on medical practice in Kansas. What of its effect upon health? The evidence is contradictory. The death rate crept upwards in the early 1930's, reaching a peak in 1934, and then began once more to decline. But much of the increase was among older people, while some younger age groups showed an actual decline in number of deaths. Human nature, with its usual perversity, seemed to confront the challenges of the depression with either a remarkable tenacity or else a submissive resignation. The death rate for infants, long in steady decline, held steady and even spurted upward in 1933 and 1936. Cancer and heart disease continued their steady march upward in the number of lives claimed each year; diabetes deaths rose in the 1930's despite the discovery of insulin the preceding decade. But among those diseases which might be influenced by economic conditions the statistical testimony was confusing. Scarlet fever and whooping

cough increased in virulency from 1932 to 1937, but diphtheria continued its steady decline; pneumonia and influenza rallied in the middle 1930's but tuberculosis continued its orderly retreat. About all that can be said is that while doctors argued the cost of medical care, and economic affairs grew worse, the health of Kansans showed only limited and uncertain effects from the great economic upheaval of these years.[25]

But one of the depression problems which plagued the Kansas farmer did have its effect upon health. This was the severe drought of the early 1930's which loosened the soil and left it prey to the prairie winds that tore it loose and carried it in huge dust clouds across western Kansas. At the peak of the dust storms in the spring of 1935 clouds of swirling dust blotted out the sun in broad daylight. No farmhouse window was tight enough to bar its passage. The worst came on the 14th of April when three hours of midday darkness fell over western Kansas, imprisoning hundreds of motorists in their stalled vehicles, forcing others to crawl on hands and knees to find shelter, and dumping tons of dirt on crops, machinery, and farm homes. Thousands of dust-bowl residents coughed and sneezed and weakened their lungs for later pneumonia and influenza attacks. The Red Cross sent forty-eight nurses into western Kansas and established emergency hospitals in the most seriously stricken counties. In addition Red Cross workers distributed more than 100,000 dust masks and supervised the job of making at least one room dust-proof in some seven hundred homes. Dr. Earle Brown, secretary of the Board of Health, hurried to the scene of the most recent disaster on three separate occasions in April and May. He was certain that mortality and sickness rates for certain of the acute infectious diseases were increasing in the stricken areas. This was confirmed by the state health officers of Oklahoma and Colorado who met with Brown at Liberal, Kansas, in late April. Plate exposures in the dust bowl showed a high bacterial count. Certainly acute respiratory diseases were on the increase, and

many county officers reported increases of from 50 to 100 per cent in the number of pneumonia cases in early 1935. A so-called "dust pneumonia" was being diagnosed by some doctors. It was not the pathogenic organisms carried by the dust, in Brown's view, which brought the rise in disease but the terrible irritation of the mucous membranes of the respiratory tract. Fortunately the drought was broken in May, 1935, though the effects on health were noticed for many months afterward.[26]

The depression of the 1930's affected public health work in Kansas in quite another way than its direct impact on health. For with the Social Security Act of 1935 the federal government began a massive program of grants-in-aid for public health work which would in time dwarf the contributions to the Board of the Kansas legislature itself. In 1936 Kansas received more than $33,000 from the national government for general health purposes and another $25,000 for maternal- and child-health work. Later there would be grants for cancer research, tuberculosis care, venereal disease control, mental health, hospitals, and a dozen other purposes. Prior to 1936 federal assistance in Kansas health work had been sporadic and limited; after 1936 it became an increasingly dominant factor in the activities of the Kansas Board of Health. Many of these grants required the states to provide "matching funds" or to keep appropriations at a certain level. The Kansas legislature usually co-operated despite occasional grumbling at "interference" from the federal government.[27]

With an enlarged budget the Board of Health expanded its operations in a dozen directions. Venereal-disease control again became a separate division of the Board; case-finding and treatment were stepped up; and more money was spent in educating the public in the dangers from the social diseases. Tuberculosis was the subject of an enlarged program which included case registers, more sputum analysis, and chest X-rays. Much more was done in the maternal- and child-health field. A Division

of Dental Hygiene, charged with teaching oral hygiene and promoting dental care, was founded in 1936. Large federal grants were made for sanitary work and expended in industrial hygiene, water purification, and construction of sanitary pit toilets. Also in the Division of Sanitation there was created in 1934 an oil-field section whose duty it was to investigate complaints of water pollution by waste-disposal methods in the oil fields. This same Division carried on a study of the tri-state mining area which had first interested Crumbine almost two decades earlier. Twenty-five lead and zinc mines in this area were investigated in 1937. Dust control was found to be haphazardly enforced, and sanitation underground was poor; and the miners' homes were no more than "dilipidated shacks" lacking any proper sanitation. Among the final recommendations of the inspectors were more ventilation in the working areas, an annual physical examination for every miner, and routine collection of dust and air samples in every mine.[28]

Tuberculosis had long taken a heavy toll in this southeastern corner of Kansas. Many observers felt that it had been a mistake to locate the state sanatorium so far away from the region of heaviest incidence of the disease. But politics had played a part in the decision, and, probably more important, it was long believed necessary to go west to find a suitable climate for the cure of tuberculosis. As early as 1927 the Kansas State Tuberculosis Association had begun pressing for a second sanatorium in the eastern part of the state. Failing in this, the Association worked for enlargement of the Norton Sanatorium in order to cut down the waiting period for tuberculosis sufferers to be admitted there.[29]

A number of additions were in fact made to the Norton institution, though the waiting period in some cases was still too long for decisive treatment. By 1928 the capacity of the sanatorium had reached 250 but could still not accommodate all who sought to enter. In 1930 Dr. C. S. Kenney completed eight-

een years of capable service as superintendent of the sanatorium and was succeeded by Dr. C. F. Taylor, who would have an even longer tenure as chief officer of the institution. Shortly before his resignation Kenney expressed alarm to reporters at the rate at which girls and young women were contracting tuberculosis during the "Roaring Twenties." The cause, he said, was "the way in which women have lowered their resistance by scant clothing, skirts above their knee, shorn locks, bare heads, late parties, auto rides, jazz dances, improper food, and in rare cases cigarettes and even booze." "A slim figure so popular among women today," the doctor concluded, "is the best prospect for producing a consumptive."[30]

However true the doctor's diagnosis, the fact was that the tuberculosis rate continued to drop steadily even during the difficult depression years. The death rate per 100,000 persons from this stubborn disease went from 49 in 1920 to 37 in 1930 and 24 in 1940. But doctors and health officials did not underestimate this ancient enemy, which continued to be the chief cause of death between ages 15 and 45, the years of greatest vigor. Some consolation, however, could be taken from the fact that Kansas still ranked low—fifth from the bottom in 1935—among the states in the toll taken by this killer.[31]

In bringing tuberculosis in Kansas under control the role of Charles Lerrigo and the Tuberculosis and Health Association was becoming increasingly important. Through its annual Christmas Seal campaign the Association realized considerable funds which were thrown each year into the fight against tuberculosis. In 1940 the Association shared with the Board of Health in the sponsorship of a tuberculin testing program in the schools. Further co-operation was received from the county medical societies and the educational authorities. Of some 25,000 tests made, almost 8 per cent showed a positive reaction. Further analysis of the results indicated that Negroes, Mexicans, dust-bowl children, and especially the offspring of the miners of southeastern

Kansas, were the most susceptible of all. A tuberculin test of school children in Cherokee County revealed a positive reaction in 35 per cent of all children. New pressure began to mount for a state sanatorium in that area but was soon dissipated in the war concerns of the early 1940's.[82]

Another campaign which won widespread acclaim in these years of depression was aimed at cancer, that formidable killer whose victims were yearly increasing. In 1933, at the request of the Kansas Medical Society, the American Cancer Society made a survey of cancer statistics and facilities in Kansas. It was found that Kansans, like their neighbors, were tending to become older and that cancer was rising with their average age. But the rate of increase in Kansas was greater than in the country as a whole. In 1913 the cancer death rate in the state had been 68 per 100,000 population, but in 1932 it had climbed to 106, an increase of 56 per cent in less than twenty years. Second only to heart disease as a killer, cancer now took more lives than automobile accidents and two and a half times as many as all reportable diseases except pneumonia combined.[33]

What was to be done? The only hope lay in early recognition and action by the patient. This meant that every Kansan must be taught to neglect no suspicious lesion on his body; he must learn to avoid quacks and realize that surgery, X-ray, and radium offered him his only hope for cure. The American Cancer Society recommended special cancer services at Bell Memorial and St. Margaret's hospitals in Kansas City and also in Wichita, a good record system at all hospitals treating cancer, a tumor registry, postgraduate education, more autopsies, and a division of cancer control in the State Board of Health. In addition the Kansas Medical Society was asked to make its cancer committee, founded in 1913, a permanent one and to stimulate every local medical society to devote one session each year to cancer. In time virtually all of these recommendations were

carried out, though it was not until 1946 that a separate cancer division was created in the State Board of Health.[34]

Another of the recommendations of the American Cancer Society was the formation by medical and lay leaders of a state cancer committee to work for the prevention and control of this lethal disease. This recommendation was partially carried out when the Kansas Women's Field Army was born in 1936. Women's armies were then being formed throughout the country to wage an aggressive educational campaign against cancer through press, radio, mass meetings, exhibitions, and special literature. Their contribution to cancer education was immense. Thousands of leaflets were distributed, hundreds of speeches given, scores of films shown. That this work was vitally needed is attested by a statement of a Wichita specialist, C. Alexander Hellwig, who wrote in 1940 that "it is our daily experience that patients come to the Sedgwick County Tumor Clinic after all hope is gone and all money has been wasted on fake cures." Despite all these valiant efforts, however, the scourge of cancer claimed an ever increasing number of victims. But who can say how much longer the roll of victims might have been without them?[35]

The numbers of the mentally ill also swelled during the depression years. How much of the increase might be assigned to the tensions and strains of the economic collapse is difficult to say, partly because of the continued overcrowding of the state hospitals and the consequent waiting lists. Beyond this, the complexity of determining the origins of mental illness would make any estimate no more than a guess. But we do know that despite the expansion of Larned Hospital to a size approaching the two older state hospitals and construction of a new receiving hospital at Osawatomie in 1931, many mental patients were left outside the protection of the state. Dr. M. L. Perry refused all further admissions to the Topeka State Hospital in 1934, when the num-

ber of patients had reached 1,861. In his view, further expansion should take place at Larned or some new location. Resort was had once more to the county jails and almhouses in the middle 1930's to provide some shelter for those unable to find a place in a state hospital. Newspapers once more carried stories of the consequences of such an unfortunate policy. In the Sedgwick County jail, for example, a farmer hanged himself in 1936 while awaiting a vacancy at Larned. But at Larned Superintendent John A. Dillon gave the only possible reply to criticisms of such tragedies: "We are about at the end of our rope in the matter of housing facilities, just as are the institutions at Topeka and Osawatomie. Our basements are full, and our porches have been inclosed to make room for more beds. . . . This monotonous chant year after year that goes up from our institutions asking for room for more beds, and the regular response from legislative committees who seldom take enough interest to visit institutions and find out their needs, is an old, old story. We, as superintendents, send out our wails every two years, knowing that it is a rather hopeless appeal, but with at least the feeling we have done our duty in the matter."[36]

One of the few bright spots in this seemingly always dark corner of Kansas' medical history was the adumbration of a new philosophy of mental illness and a new approach to the insane in the middle 1930's. To Osawatomie in 1936 came Dr. Ralph M. Fellows, full of plans and ideas derived from his invaluable experience as a medical director of the Menninger Clinic in Topeka. The Menninger philosophy was the wave of the future, and Fellows sought prematurely to bring its revolutionary changes to the crowded wards of Osawatomie. Energetic treatment of every acute case with all the resources at his command was the goal he sought. He wanted an active staff of psychiatrists and therapists interested in curative and preventive psychiatry rather than domiciliary care. He sought to introduce a psychiatric social service which would bridge the gap between hos-

pital and home and make possible more returns and paroles. He foresaw a state-wide prevention campaign, waged with all the money and resources that were being thrown into a cancer or tuberculosis drive. Outpatient clinics with facilities for adult treatment and child guidance, he thought, should be established by the state hospitals at strategic locations over the state. Much was attempted under his direction. A psychiatric social service was begun; an outpatient clinic was opened at Osawatomie, and staff members also visited Kansas City once each week; insulin and metrazol shock therapy were introduced in 1937; closer relations with the Medical School, whose senior medical students had been spending a fortnight each summer at the state hospitals, were eagerly sought. But all of this was only a taste of the future, vastly encouraging, holding out promise for the young, but too little and too late for the vast majority of Kansans suffering from mental disease.[37]

For those who could afford private treatment of their mental ills the Menninger Clinic and Sanitarium held out the brightest promise of relief and recovery. Despite the depression the work of both Clinic and Sanitarium expanded rapidly during the 1930's. With the addition of a half-dozen doctors to its staff in 1933 the Clinic became one of the most completely staffed private mental health centers in the United States. By this time the Menningers were operating a hospital for acute mental cases and an enlarged school for problem children, as well as the sanitarium for nervous and medical patients and the clinic for neurological and diagnostic cases. In 1935 a postgraduate course in neuropsychiatry, one of the first in the Middle West, was offered to physicians. That same year *Fortune* magazine carried a long article on the work of the Menningers in which their sanitarium was described as "the outstanding private mental hospital west of the Alleghenies." What was the secret of their unprecedented success? Ernst Simmel, a pioneer German psy-

choanalyst who visited Topeka in 1936, was sure that he knew the answer:[38]

I saw there [in Topeka] what I had aspired to develop—a true, systematic, clinical psychotherapy on a psychoanalytic basis,—yes, more than that, I saw realized what I had always considered the crowning achievement of a psychoanalytic clinic—a special department for maladjusted children. I saw fulfilled in Topeka that principle which I had felt was indispensable in a psychoanalytic sanitarium—namely, a very close working coöperation between the physicians and the entire personnel of nurses and therapists. I was present at the daily staff meetings in Topeka, the scientific level of which was equal to that of the seminars in our leading psychoanalytic institutes, with this difference, that behind every report, behind every case presentation, behind every discussion, there was the practical purpose of helping a particular patient, a patient who . . . was personally known to every member of the staff. I think it would have been a particular satisfaction to Freud to see and to hear how the practicing psychoanalyst, the internist, the neurologist, even the bacteriologist and the pathological anatomist discussed together the libidinous structure of the cases and tried to understand them in connection with the problems of anxiety and guilt, of Eros and Destruction.

Many later observers would agree that this concept of medical teamwork centering around a sick individual was the great contribution of the Menningers to the mental health movement in America. Psychiatry had long suffered from its ability to diagnose but not to cure, to give only care but little hope. By bringing psychotherapy out of the occult and into the medical world of Kansas and the Midwest they demonstrated how much could be done with patience, time, skill, and money. Once it had been thought ridiculous to record a temperature, Karl Menninger reminded the doctors of St. Louis in 1936. Then the taking of a specimen of urine was held to be idle nonsense. Now some doctors still believed it was senseless to inquire into the details of a patient's dream. But "we know that dreams and urine and fever may and *must* all be examined if we are to truly and fully

understand a patient." Doctors and psychiatrists alike threw the weight of their knowledge and skill on the side of the embattled life instinct, whether it be challenged by injury, bacteria, or an urge to self-destruction. Physicians themselves, he concluded, owed much of their own peace of mind to their calling, which diverted their own destructive tendencies to an attack on the destructive tendencies of others. Thus, said Menninger in Biblical parlance, "by losing our lives, we save them." Doctors, whether surgeons or neurologists, internists or psychiatrists, "have more in common than in controversy."[39]

This was a faith upon which the Menningers acted—at home, among their colleagues, and at professional meetings. At a meeting of the nation's leading psychiatrists in 1938 Karl Menninger rose in the midst of a colleague's paper to object that psychiatry was no cure-all and could not solve all problems which baffled the medical profession. "We should be doctors first," he protested, "then psychiatrists and then psychoanalysts."[40]

In 1941 with the country facing a great national emergency the Menningers announced the formation of a non-profit Foundation to carry on and expand their work. Actually this change had long been under study but had been held back by fears that loss of personal control would change the character of the institution. Morale might be disturbed; money would have to be raised to buy out stockholders; and the idea of organizing meetings and soliciting public donations for their work did not at first appeal to the Menningers. But now it was clear to them that their work, particularly in research and teaching, was being held back by lack of funds. Research brought no income, and much of both the research and teaching at the Clinic was being poorly subsidized by fees from private practice.[41]

The prospectus of the new Menninger Foundation foresaw four main functions for the Foundation in the future: education, research, treatment, and prevention. Of the need to train more psychiatrists with a great war in the offing and the nation al-

ready desperately short of them there could be no question. Research was vital if psychiatry was to do more than simply mark time. Even treatment could not move forward on the basis of practicing only what was known. Yet treatment was also an important duty of the Foundation, since both research and education depended upon the existence of clinical facilities. Prevention, finally, was the great unfilled need in the entire mental health picture, and much could be done by a non-profit Foundation in training doctors, teachers, ministers, and others in the signs of mental health and disease.[42]

For a number of years the Menninger Foundation existed side by side with the older clinic and sanitarium, but in 1945 the latter were merged with the Foundation. Into the non-profit Foundation went the assets, the hopes, the dreams accumulated by the Menningers and those who had believed in them over the preceding two decades. Already the Foundation had begun significant research in hypnosis, occupational therapy, psychosomatic medicine, war disorders, and treatment of neurotic children. Just in the offing was a tremendous forward thrust in facilities, training, and research which would earn Topeka the appellation of "psychiatric capital of the world." But this is best considered later as part of the great renaissance in Kansas medicine following World War II.[43]

It remains now to chronicle the events at the Medical School to complete this survey of the depression-ridden 1930's. Like the other public institutions of the state the School felt the pinch of slashed appropriations and reduced salaries. Appropriations were cut 25 per cent in 1933, with warnings that worse might come; many activities, including postgraduate courses, were reduced or eliminated; more loans to students were necessary; tuition halted its upward march; and every effort was made to exclude all those able to pay something from the free clinics and free beds at the hospital. Unexpectedly, enrollment increased.

Many who might otherwise have left Kansas for medical study remained at home. Nine of every ten students at the School in 1938 were Kansans. Most of the others were from Kansas City, Missouri. Out-of-state applicants were given little consideration. According to Dean Wahl's figures more than six hundred applications were received for the eighty places in the freshman class of 1938.[44]

One gleam of solid achievement shines through the gloom of the middle 1930's at the Medical school. This was the completion of four new buildings in a single year, made possible by falling prices and a combination of appropriations, hospital fees, private gifts, and federal funds. In 1936 a warehouse, a clinical building, a children's pavilion, and the Hixon Research Laboratory joined the small cluster of structures on Rainbow Boulevard. The total cost of these additions was about $325,000 in an era when building and labor costs were relatively low. In the Hixon building was provided at long last more adequate space for the research and laboratory work of the School. This work had been gathered together administratively in 1935 into a Department of Medical Research headed by Ralph Major. But now that space was available, funds became more scarce, and we find Dean Wahl complaining that he had no money to encourage medical graduates to undertake research work. Most faculty members were too much burdened with routine responsibilities to undertake original work. "Even 6,000 dollars," he told the regents—does this seem possible only twenty years ago? —"would greatly change the status of research in the various departments of the medical school."[45]

At Lawrence the scientific faculty were now less favorably housed than their clinical brethren in Kansas City. The Department of Anatomy was moved out of the basement of Dyche Museum to a frame structure known as the Commons Building in 1932 after the former quarters had been labeled "unsafe" by state authorities. Four separate buildings now housed the de-

partments of anatomy, physiology, biochemistry, and bacteriology. Everywhere there was overcrowding as the depression forced more students into the University. A group of visitors from the Council on Medical Education of the American Medical Association "severely criticized" the physical facilities for medical study at Lawrence. Later the problem was made worse, at least temporarily, by the burning of the Anatomy Building in 1943. Haworth Hall was then remodeled to provide quarters for this peripatetic department. In time further attempts to secure a single medical building at Lawrence would be abandoned in the knowledge that eventual unification of the School in Kansas City was now a certainty.[46]

Other changes took place in the Medical School's offering and requirements in the 1930's. Three years of college work were made mandatory for admission to the School in 1939, though most students had already met or exceeded this standard. Courses in college chemistry, physics, and biology were required in addition to work in English and modern languages. Negro students were first admitted to the Medical School in the late 1930's by order of the State Board of Regents. Earlier, in 1934, the first graduate residencies at the Bell Memorial Hospital, soon to be rechristened the University of Kansas Hospitals, were made available. Enrollment at the School climbed slowly from 307 in 1934 to 359 a decade later.[47]

For its faculty the Medical School need make no apologies. Scarcely another school in the country could claim so much talent on so modest a budget in such unpretentious surroundings. At both Kansas City and Lawrence faculty members were responsible for much sound teaching, some daring clinical work, a respectable number of publications, and a surprising amount of original enterprise. With justice, Dean Wahl could report that "the school has a strong faculty, many of whom have an international as well as a national reputation. It has carried on considerable productive research, and even with its limited facili-

ties it shows more research activity than many schools older and more richly endowed." If brains rather than bricks, as the old adage has it, make up a real university, then the University of Kansas was fortunate indeed in its Medical School.[48]

Wahl himself was dean of the Medical School for almost a quarter-century (1924-1948). Much of the scientific soundness of the University of Kansas School of Medicine was due to him. As dean, superintendent of the hospital, and chairman of the Department of Pathology this quiet, scholarly man was forced to arrive at his desk early in the morning and sometimes stay until after midnight. Like Sudler before him, Wahl stood for high standards and uncompromising integrity in an uncertain and troubled era. His policies, his choice of faculty, his personality left a deep mark on the Medical School. Trained in medicine at Johns Hopkins, a teacher of pathology and director of laboratories in a Cleveland hospital, he had brought to Kansas a love of pathology which was never quenched. In the late 1920's he was pathological adviser to most of the hospitals of greater Kansas City at a time when most employed no regular pathologist. His long administration of Medical School affairs was the strong link between the old and the new in Kansas medical education. From the primitive, struggling, politics-racked institution of 1924 Wahl led the school into the new era of impressive growth and dynamic expansion following World War II. When he became dean in 1924 his closest adviser had been Dr. Franklin E. Murphy, a wise counselor and skilled clinician who gave him good advice in those troubled days. And when he retired from the deanship in 1948 he turned over the reins of the Medical School to Murphy's son, Franklin D. Murphy, who would lead the School into brighter days.[49]

The pathology which Wahl taught so brilliantly served the medical students of Kansas well in their work in surgery, always one of the strongest departments of the Medical School. No surgical teachers ever insisted more strongly than Arthur

Hertzler and Thomas G. Orr that all good surgery was rooted in a sound knowledge of pathology. Orr's tenure as professor and chairman of the Department of Surgery (1924-1949) coincided almost exactly with Wahl's period of leadership of the School. Like Wahl and Ralph Major, Orr, who had first come to Kansas in 1914, was a Johns Hopkins medical graduate. For him surgery was more than a field of practice or even a science. It was a mission. Through intense effort, brilliance of mind, and dexterity of hand he raised himself to the top of his profession. His researches in surgical shock, hernia management, intestinal obstructions, and surgery of visceral malignancies brought him an international reputation among surgeons. Two of his books —*Modern Methods of Amputation* (1926) and *Operations of General Surgery* (1944)—were widely known. He was editor of the *American Surgeon* and a founding member of the American Board of Surgery, and in 1949 was honored by his surgical colleagues with the presidency of the American Surgical Association. His reputation and intense interest in the Medical School did much to win and hold respect for it during these years of trial and transition.[50]

Arthur E. Hertzler was as well known to surgeons as his long-time colleague and certainly better known to the public. No more colorful and distinctive person ever came out of the Jayhawker state to make his mark in the great world beyond. After medical school and several years of country practice in Halstead, he had spent two years in Berlin with Virchow, Waldeyer, and other famous German medical men of the late 19th century. Rejecting a professorship in anatomy at a large eastern university, he returned to Kansas, where he built up a large practice and established a famous clinic at Halstead. His surgical reputation was founded upon his long and meticulous researches in diseases of the thyroid and the peritoneum, and he was a world authority on local anesthesia.

But it was as a person and unorthodox country practitioner

that he is remembered best by his colleagues and vast public. An elongated, loping figure of a man with long face, sharp, homely features, always nonchalantly dressed, he reminded his visitors of Lincoln in the combination of casualness, tolerance, seriousness, and humor which he radiated. His working schedule was incredible. He operated from 7 A.M. until noon, slept from 12 to 2, worked in his outpatient clinic every afternoon, went to bed at sunset, arose to write and study at 11 P.M., and retired once more at 3 or 4 A.M. for a few hours' rest before starting out once more on this remarkable routine. In addition, he spent some time each day managing his large farm and commuted once each week to the Medical School, sleeping two nights on a Pullman sleeper. He even had a bed modeled after a Pullman sleeper installed in his home, claiming that he slept better that way. As a teacher he was popular and thorough, though most unpredictable and unconventional. On occasion he would excuse his class from a lecture or examination to take them to a baseball game which, he told his students, would benefit them more than his lecture. He refused to give grades and passed all students, which was irritating, to put it mildly, to the dean's office. He gave every senior a set of his monographs on surgical pathology. No wonder that students liked him![51]

But he remained in person and in heart close to his Halstead neighbors and patients. No more popular book on a doctor's life has ever been written than Hertzler's famous *Horse and Buggy Doctor,* which blazed like a comet across the literary sky of 1938. Here was a warm, human, ardent defense of the old country practitioner's life as he had led it around Halstead at the turn of the century. Here were the hardships and humor, the tragedies and joys, the faith and the intimacies of an old doctor's rounds. It came like the voice of an age suddenly vanished, leaving only memories and nostalgia behind. At a time when Americans were debating the crisis in medicine and lamenting the impersonality and the high cost of modern medical care,

Hertzler's words brought back momentarily the less complicated world of their youth. Overnight he became a literary lion and a national figure. He was dined, honored, feted, invited by a thousand organizations to speak and visit. But throughout it all he maintained the pose of a simple country doctor annoyed by these interferences with his normal routine. In New York he refused to allow his publisher to give a luncheon in his honor, because, he told reporters, he "couldn't eat in public," and refused to visit the publisher's offices on the theory that his publisher knew all that was necessary about publishing and that it was none of the doctor's business to investigate. In Washington he delighted reporters as he fired salvos at overspecialization, bureaucracy, and excessive paraphernalia. "The thing I most want to see in Washington," he told his amused hosts, "is a train headed west, in the direction of Kansas."[52]

There were other colorful and able colleagues of Hertzler's at the Medical School. For a quarter-century Logan Clendening was known to men and women across the nation for his witty syndicated column on health, his sprightly books, and his colorful pronouncements. A native of Kansas City, Missouri, this broad, genial, ruddy-faced man had taken his medical degree at Kansas and then journeyed to Edinburgh for postgraduate studies. His career in teaching physical diagnosis at his alma mater began in 1910 and lasted until his death in 1945. A man of Rabelaisian wit and often intemperate enthusiasms he was sometimes not taken seriously by his colleagues. He once captured headlines by using an axe on a compressed-air valve after enduring months of noisy repair work in front of his home. But according to John F. Fulton, a leading medical historian, "Few men of the medical profession in this country have had a finer quality of mind or an intellect more richly stored." In Fulton's view Clendening was entitled to rank with Oliver Wendell Holmes and William Osler as one of the foremost literary physicians of his age. As an author he wrote excellent textbooks in methods

of diagnosis and treatment, his medical specialty, and was an early pioneer in the writing and teaching of medical history. His own magnificent collection of rare medical books became a nucleus of the fine historical collection in the present Clendening Medical Library. Perhaps best known of all his books was his masterful popular account of physiology and hygiene entitled *The Human Body*. One example will suffice to demonstrate the wit and humor, good sense and breezy informality which abound throughout.[53]

There is . . . a mental view-point, a disposition, as we say, which goes with each [body] type. The thin one, because his muscles are long and slender, because his digestive tract is poorly upheld, is easily fatigued. But he may be just as ambitious as anyone else. He is constantly laying out programs for himself that he cannot carry through. This breeds melancholy and dissatisfaction. The heavy ones [which, as many of his readers knew, included Clendening] are much more likely to be able to accomplish their tasks easily. So they are cheerful, jovial, get through their work in a few hours, look back on it with pleasure, and are ready to begin a party at half past four in the afternoon. They like marriage feasts and christenings. The thin ones like divorces and funerals: you will find them comforting the misunderstood wives or arranging the flowers. The heavy ones like poker; the thin ones solitaire. The heavy ones are interested in getting just the right flavour to their cocktail; the thin ones in getting the most potent fluid extract of cascara. The heavy ones read Eddy Guest, Conan Doyle, and the *Saturday Evening Post*; the thin ones Baudelaire, Dostoevsky, and the *Dial*.

When Logan Clendening inaugurated the Department of Medical History in 1940, among the lecturers on this subject was Ralph Major, likewise long interested in historical studies. Major had returned to the University of Kansas in 1921 following a two-year stint as head of the department of internal medicine at the Henry Ford Hospital in Dearborn, Michigan. Chancellor Lindley aptly characterized his return as "one of the greatest additions" ever made to the University of Kansas faculty. A stimu-

lating lecturer and capable researcher he also fulfilled his own requirement that "a physician should be not only a doctor but also an educated man." Cultivated, well-traveled, a student of history and the classics, he was the natural choice to succeed Logan Clendening as leader of the work in medical history.[54]

There were other gifted and outstanding teachers and clinicians who imparted their knowledge and skills to the fledgling doctors of Kansas. In addition to Orr and Hertzler the Department of Surgery boasted the indomitable George Gray, still active in the 1930's, the popular C. B. Francisco, bone specialist and special friend of little children and timid medical students, the energetic C. C. Nesselrode, leader of the Kansas fight against cancer, and the quiet Nelse Ockerblad, known for his work in clinical urology. Earl Padgett was winning fame for his books on plastic surgery and the dermatone he devised for skin transplantations. In dermatology the big-game hunter and encyclopedist, Richard Sutton, was followed by Charles Dennie, who did outstanding work in congenital syphilis. The Department of Medicine counted Peter Bohan and Edward Hashinger among its strongest teachers. The latter was gifted by a versatility which ranged over architecture, music, drama, and glass-collecting and carried him into geriatrics study and administration of the postgraduate program. Still other names come to mind: Frank Neff, a gifted pediatrician of the Old School; Don Carlos Guffey, longtime chairman of the Department of Gynecology and Obstetrics; Edward Curran in ophthalmology; and a dozen others who made important contributions to Kansas medicine by the training they gave the Kansas doctor. At Lawrence an outstanding quartette of department heads in the medical subjects—Noble Sherwood in bacteriology, H. C. Tracy in anatomy, O. O. Stoland in physiology, and C. F. Nelson in biochemistry—gave several generations of Kansas doctors the best of training in scientific medicine.

All in all, the physicians and citizens of Kansas had reason

* The dermatone mentioned above was proposed by Professor Padgett and developed and patented by Professor George Hood, a colleague in the School of Engineering, with whom he collaborated for some time.

to be proud of their Medical School. It had weathered economic storms, beat off political attacks, survived an era of unpopularity, got along with scanty supplies and classroom space, and withal attracted and held a brilliant faculty. More progress would come in the future, swift, dynamic, and overwhelming in some respects, but the future, we need not be reminded, is anchored solidly in the past.

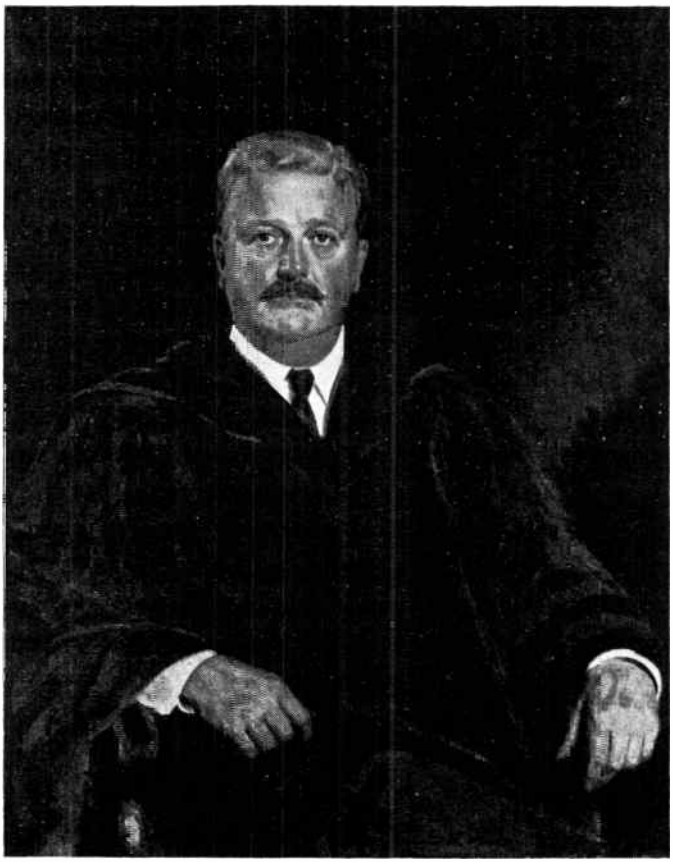
With the coming of the Second World War the Medical School, like the entire medical profession of Kansas, faced a supreme challenge. There were fewer doctors in 1941 than in 1917, and these were concentrated in the cities. There were more people to serve, and the medical services they demanded had increased in number. In wartime, industry would grow apace and cities mushroom, creating new problems for health officials. Furthermore, hostilities would this time extend over nearly four years, compared with nineteen months in World War I. More Americans, finally, would go overseas to more remote destinations; casualties and sickness would be heavier. This meant that more doctors would be urgently needed for war service just as the prolonged strain upon the civilian population was at its peak.

From the first the Medical School did its best to meet the new demands. Even prior to Pearl Harbor an evacuation hospital unit was organized, but after the opening of hostilities new recruits began to flock into the unit. Under Edward Hashinger they trained and drilled until May, 1942, when a farewell party was given for this 77th Evacuation Hospital group. For the next three years they knew the excitement and horror, the chaos and the boredom of war. From England they joined troops invading North Africa, trekked across Algeria, landed in Sicily, and finally moved to the Continent with the great Anglo-American invasion force of 1944. What some of the trials and frustrations of these war experiences were like is gleaned from an ac-

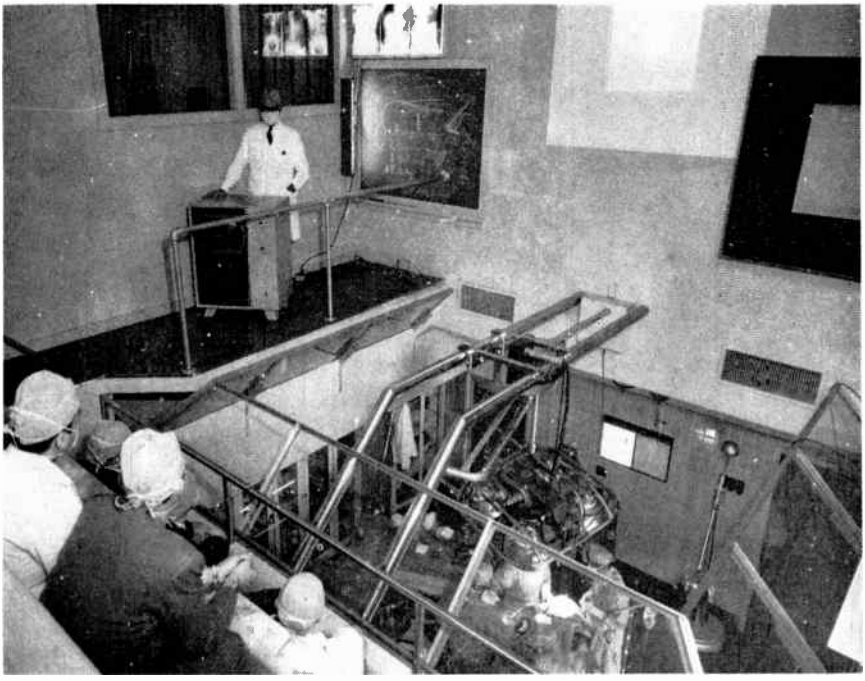
count of the 77th following its first engagement:[55] "The enlisted men of the 77th, many of whom had never seen a patient before, struggled against almost insurmountable difficulties. Thrown into a strange land and given almost no equipment or supplies, they toiled incessantly through long hours of heat and gloom, in a dirty, poorly-lighted house of misery. With their own hunger and thirst forgotten, and their sleep only an occasional brief nap on a concrete floor, they ignored their discomforts, repressed their tension and uncertainty of the military situation and learned to do difficult and often revolting tasks simply by doing them."

At home the Medical School accelerated its educational program, shortened vacations, and made it possible for a student to graduate in three years. Training of nurses was similarly speeded up. Courses in war medicine, tropical diseases, and industrial health were given new emphasis. In 1943 over two hundred medical students were enrolled in the Army Specialized Training Corps, put in uniform, and paid and housed by the government. As the wounded veterans began streaming back to Kansas, the School inaugurated a training program in physical therapy under Dr. Gordon Martin from the Mayo Foundation. For returning doctors there were refresher and postgraduate courses in a half-dozen specialties grown rusty in wartime.[56]

The war put a tremendous burden upon the Kansas Medical Society. Once more the Kansas doctor examined draft registrants for military duty, packed his bags for war duty, or worked doubly hard to care for the civilian patients at home. But who should decide on the proper role for each? In all these decisions the Society through its medical preparedness program exerted an influence. This program was begun in 1940 under the chairmanship of Dr. Forrest Loveland, then president of the Kansas Medical Society. Every physician in Kansas was classified as to his military status before actual hostilities began. But despite all precautions a doctor shortage developed early in the war and



Logan Clendening, M.D.



A televised operation, University of Kansas Medical Center

CHANCELLOR
FRANKLIN D. MURPHY, M.D.

grew more serious as the war progressed. Small towns, particularly in western Kansas, were hard-hit. Gasoline- and tire-rationing made neighboring doctors and hospitals harder to reach. A registry of retired physicians was begun by the Society for use in emergency situations. Occasionally a doctor was induced to shift his location to provide better medical coverage. Some specialists turned in the emergency to general practice. By the middle of 1943 nearly five hundred Kansas doctors were in military service, representing about one-third of all practitioners. The ratio of doctors to patients climbed from one to 1,200, then 1,500, finally 1,800. In critical areas a single doctor might be serving 5,000 people or more. As in World War I, many of the older doctors, especially those who had retired, buckled under the strain. A Kansas Medical Society meeting of this period was likened to a gathering of old-age pensioners with "canes and crutches and wheel chairs and bald heads" much in evidence. Several county societies disbanded completely for the duration of hostilities.[57]

Of Kansas doctors at war there is unfortunately no detailed record. We must suppose that they had their full measure of heroism and hardship, suffering and sorrow. Battlefield surgery amid the cries of the wounded, surrounded by the filth and uncertainty of war, must rank very near the top of the challenges which ever confront a doctor. Some, we know, were decorated for their services; others rose to a high rank; a few laid down their lives for their country. Probably Will Menninger as chief of all psychiatric services in the United States Army reached the highest wartime eminence of any Kansas doctor.

With the war approaching its end the Kansas Medical Society raised about fifty thousand dollars to finance postgraduate and refresher courses for the returning doctors of the state. Pressure was put upon Army and Navy officials to speed the return of needed physicians. The end of the war came none too soon for the growing crisis in Kansas. By 1945 the mortality rate of physicians in the state had risen to one hundred per year due

largely to overwork and a lack of replacements. Within six months of the end of the war, however, the rapid demobilization of doctors along with other veterans had eased the crisis and near-normal conditions prevailed once more.[58]

At the State Board of Health Dr. Floyd Beelman, like Crumbine a quarter-century earlier, dealt energetically with the new health problems thrust upon the state by the war. Public health, proclaimed Beelman, was "the first line of defense in time of war." Around Wichita, Manhattan, and Junction City emergency war industry zones were created in which stringent sanitary regulations were enforced to protect the army of new industrial workers flocking to these cities. All communities near army posts in Kansas were subject to stringent sanitary supervision. To Beelman and his staff fell the responsibility for administering the wartime program of maternal and infant care for servicemen's wives and children, in which the Kansas Medical Society co-operated. The Board also fought valiantly to keep pace with the sudden avalanche of requests for birth certificates precipitated by Army and defense industry rules.[59]

In co-operation with the Kansas Tuberculosis Association a project was launched in late 1941 to investigate all youths rejected by the Army for war service, especially where chest disease was suspected. Much was done to guard against tuberculosis in wartime. Mass tuberculin surveys, mobile X-ray projects, and various detection clinics were important in finding new cases of the disease. In March, 1945, the legislature authorized the use of Hillcrest Sanitarium in Topeka as a "screening-out station" for incipient cases of tuberculosis.[60]

As in World War I venereal disease showed a startling increase after 1941. Once more infected women were committed to the Women's Industrial Farm at Lansing. Eighteen special clinics were established in the major cities of Kansas. A broad program of education through films, posters, radio announcements, and speeches was undertaken. A vast amount of anti-

venereal drugs was supplied to physicians and clinics. Rapid-treatment centers were established late in the war.[61]

When penicillin became available for civilian use in 1944 it was immediately thrown into the fight against venereal disease. Many remarkable changes were coming over the practice of medicine in the 1940's as penicillin, blood plasma, sulfa drugs, and later ACTH and cortisone revived the ancient faith of the pioneer doctor in the efficacy of drugs. New techniques in surgery, advances in immunology, and progress in controlling some of the remaining killers added to the feeling that medicine was entering a new era. In time the medical world of 1939 would seem as remote as the world of the 1890's seemed to Arthur Hertzler's readers in the 1930's.[62]

In surveying the impact of World War II upon Kansas medicine and health one sees that most of the catastrophic fears of 1940 went unrealized. The doctor shortage, while real, was not much worse than during World War I. The army camps and defense industries brought no serious upturn in disease to the state. Despite the rapid shifts of population over the five years of emergency and war there was no major epidemic, certainly nothing to compare remotely with the influenza onslaught of 1918. The health of Kansans on the whole had remained good. The death rates for most diseases, in fact, showed a sharp decline. Like the depression, the challenge of war seemed to give people a tenacity of purpose and a will to live. Compared with the rest of the nation, finally, Kansas draft rejection figures were almost as favorable as in World War I. Only a percentage point separated Kansas, second healthiest of the states by these statistics, from the post of leadership it had held in the First World War. This was a continuing tribute to the sturdiness of her citizens, the skill of her doctors, and the enterprise of her health officers.[63]

VI

Kansas Medical Renaissance (1945-)

THE CLOSE OF WORLD WAR II found more dark clouds on the horizon of Kansas medicine. Veterans needed special medical and hospital attention. Was Kansas prepared? What of the unconscionable backlog of desperately needed changes at the state hospitals, the tuberculosis sanatorium, and the Medical School? Would Kansas act? More doctors and more hospitals were critically needed in the rural areas of the state. Could anything be done? Other matters pressed for attention. Returning doctors were anxious for more education; the needs of the aged and the chronically ill cried out for more understanding and help; cancer and heart disease were still marching up the mortality graphs; polio had taken alarming epidemic form in a succession of summers; osteopaths and physicians were still locked in unyielding combat over the former's right to practice medicine. Finally, there were fears of another wave of political lunacy bringing new catastrophes to the state as after World War I.

The faint-hearted, however, mistook the mood of Kansas in 1945. From the citizens and veterans and opinion leaders of the state there welled up a determination that this time there should be no easy return to normalcy. It was a time for optimism, faith, and bright hopes for the future. A great war had just been won by the united and untiring efforts of millions of human beings drawn together in a single cause. What could not be achieved in a state or a nation if similar unity and determination held sway? Through the newspapers, speeches, and public pronouncements of Kansans in these exciting postwar years runs the theme that the future must be made brighter than the past. In education and politics, business and transportation, public health and medicine the people must be better served than before the

war. To be sure, the great medical and public health advances after 1945 were also inspired by intensive educational effort and exceptional leadership, but neither could have moved a public or a legislature not temperamentally ready to act.

The catalogue of accomplishments in medicine of this postwar generation of Kansas would have seemed incredible a few short years before. No state moved more swiftly to push ahead with hospital construction under the federal Hill-Burton Act of 1946. More hospitals were built or improved in the next ten years than during any decade in the state's history. No state dealt more successfully with the shortage of rural doctors. Through unprecedented co-operation of the state's physicians, farmers, and legislators the "Murphy Plan" for rural health became a model for other states to follow. No state, finally, acted so decisively in overturning the past in dealing with the mentally ill. Around the nucleus of the Menninger Foundation there grew up such a complex of residencies and internships, training and healing programs for the mentally ill that Topeka was denominated the "20th century Vienna" for its leadership in psychiatry. Once more it was co-operation of the most intimate kind that sent the reputation of Kansas' mental health program soaring far beyond the borders of the state. If there be any secret to Kansas' unparalleled success in meeting these knotty problems of the postwar era, this was surely it. By 1950 Kansas accomplishments in rural and mental health and a half-dozen other fields were being heralded in articles and photographs by a score of national publications. The bright prospects of the Crumbine era for Kansas eminence in medicine, dampened by a dreary quarter-century of politics, depression, and war, were now revived to excite the pride and imagination of Kansans at mid-century.

Even before the passage of the Hill-Burton Act of 1946 hospital and health authorities were preparing a great wave of new

hospital construction. Floyd Beelman of the State Board of Health called a meeting in September, 1945, to map plans for hospital expansion across the state. From the Kansas Medical Society, the Kansas Hospital Association, and other interested groups came delegates to this initial conclave. A survey of existing hospitals was determined upon as a necessary first step in any future expansion. Already a boom in hospitals was being predicted in newspapers and medical circles. After the long years of denial in depression and war, eleven Kansas communities voted bonds in the summer of 1945 for new county or city hospitals. Private hospitals were likewise feeling the spur of pent-up demand and relaxing controls over building materials. None was more fortunate than the Susan B. Allen Hospital of El Dorado which fell heir to an estate of over two million dollars in 1945.[1]

Not all of the existing hospitals in Kansas in 1945 were by any means the object of state pride and admiration. According to one study, there were 156 hospitals in the state, of which only 90 were approved by the American Medical Association and only 33 met the high standards of the American College of Surgeons. Many of the unapproved hospitals were small frame structures, poorly equipped, lacking in necessary sanitary facilities, and without proper medical supervision. Much remained to be done to renovate, replace, and expand these existing institutions before Kansas could assure her citizens of adequate hospital care.[2]

Under the federal legislation of 1946 Kansas was made eligible for some five million dollars in governmental aid for hospitals over the next five years. Rigid requirements had first to be met: a general plan, high construction standards, a state licensing system for hospitals, and the provision of matching funds by the local communities concerned. The State Board of Health was designated the administrative agency to handle these federal funds in Kansas. From the survey begun in 1946 came data which dramatized the enormousness of the hospital problem in

the state. Of general hospital beds, Kansas had 5,177, only 63 per cent of the number considered essential; of beds for psychiatric patients Kansas could count only one-half the number needed; of beds for tuberculosis sufferers, finally, the state lacked more than 50 per cent of the number required. Worst of all, not a single hospital bed in the state was reserved for those chronically ill. Other depressing statistics revealed that one of every four Kansas hospitals was a converted home; one of every three was a fire hazard; and one of every two housed fewer than twenty-five beds.[3]

A state plan was announced in 1947. To prevent overbuilding and to ensure adequate hospital facilities for all Kansans, the state was divided into two base areas centering around Kansas City and Wichita. Here hospitals and special facilities would naturally be densest. Then came eleven intermediate areas where there was already at least one general hospital of one hundred beds. In the remaining rural areas the aim was to provide two and a half hospital beds for every thousand persons. With goals now firmly set, and dozens of communities clamoring to begin construction, the great hospital-building era was opened.[4]

Coffeyville claimed the distinction of completing the first hospital under the federal aid program in May, 1949. It was a community project, financed by two bond issues and private donations, as well as a federal grant. By 1950 southwestern Kansas had opened thirteen new hospitals, nearly all in counties that had never before seen a first-class hospital. Throughout the state there were twenty-nine hospitals under construction or just completed in the spring of 1951, bringing more than one thousand new beds into the service of the ill and injured. There were now about 170 general hospitals and health centers in Kansas, in addition to federal and state hospitals and private clinics.[5]

In Topeka two pioneer hospitals merged in 1949. Stormont and Christ's hospitals, under attack for needless duplication of

effort when expansion was urgently needed, agreed to merge their operations in the interest of economy and efficiency. Christ's Hospital was chosen as the site for a great expansion of the consolidated institution. Over three million dollars were expended in augmenting and remodeling the new Stormont-Vail Hospital, as it was called, of which two millions came from a bond issue voted by the citizens of Topeka. In urging approval of the board proposal the arguments of Dr. Lucien R. Pyle printed in a Topeka newspaper showed how far medicine had come since Bishop Vail's wife put her meager savings aside for a hospital over two-thirds of a century before: "The modern practice of medicine is no longer a lone wolf game. It is the concerted action of a physician, directing the activities of graduate nurses, master laboratory and X-ray technicians and consulting with physicians specifically trained in the interpretation of laboratory and X-ray findings. There is only one place where such a team can work efficiently and that is an institution such as the proposed new Stormont-Vail hospital. . . ."[6]

Under continued assistance of the federal government and occasional prodding from the Board of Health the communities of Kansas moved rapidly forward in the number and quality of hospital services offered. In Wichita the St. Francis Hospital underwent a mighty expansion; in Kansas City virtually every hospital grew during the 1950's, especially Bethany, Providence, St. Margaret's, and the University of Kansas Medical Center, which more than doubled in size and number of beds; in Atchison, Topeka, and a score of other cities the hospitals of an earlier age underwent growth, remodeling, and transformation. Nursing schools grew in number; the first beds assigned exclusively to chronic disease made their appearance; nursing homes were expanded and greatly improved; and diagnostic and treatment centers became more numerous. From the days when hospitals were dark, unsanitary shelters for the sick poor, Kansas had moved rapidly by the 1950's to an era where virtually all surgi-

cal and obstetrical treatment, and a growing proportion of all medical care was administered within the walls of a hospital.[7]

From the launching of new hospitals to the campaign for more rural doctors is an easy step. For, as Oliver Ebel of the Kansas Society argued in 1946, it was the lack of modern medical facilities, including hospitals, which kept the well-trained young doctor out of the rural areas of Kansas. More hospitals would in time mean more doctors for the farm families of the state. For this reason and others the Society followed the hospital-building program with keen interest and steady support.[8]

But would new hospitals scattered over a score of counties be enough? How could doctors be encouraged to go where there was no hospital and no prospect for one? The problem was grave. During the 20th century Kansas had seen a 30 per cent reduction in the number of her physicians while the population had grown by 25 per cent. Worse, the remaining physicians were clustered in the cities to an extent unknown to the Kansas of 1900. In more than twenty counties the mean age of practicing doctors was sixty years or more. Over one hundred Kansas communities were pleading vainly for a physician. The editor of the *Pratt Tribune* spoke realistically when he said in late 1945: "It isn't too far-fetched to say that the rural areas in a few years may find themselves back where their pioneering grandfathers were as far as access to medical care is concerned. The old doctors are passing and the young docs are tending to congregate in larger centers. Right now, there are families in the Pratt area who are 25 miles from the nearest doctor and the chances of their ever having a physician in their nearest small town seems rather remote at this time."[9]

What could be done? It was by no means exclusively a Kansas problem, but no other state had made much progress in solving it. The trends of almost a half-century had precipitated this crisis—specialization, medical teamwork, fewer medical gradu-

ates—and it seemed unlikely that anything less than heroic efforts could bring relief. As a farm state with few population or medical centers Kansas felt the shortage of rural doctors more than most. Virtually every farm and medical agency in the state was concerned. Confronted with requests from fifty-six counties for doctors, the Kansas Medical Society created in 1947 a Rural Health Committee to study the problem. Almost every farm organization at every level was discussing the doctor shortage. The State Board of Health and the State Board of Agriculture were likewise much interested.[10]

But the suggestion of a bold plan to whip the crisis came from an unexpected source. The Medical School, too, had long been concerned with its failure to provide sufficient doctors for the sparsely populated districts of the state. As the creature of a farm-dominated state legislature, moreover, the School had suffered from the coolness of legislators to an institution whose rising standards seemed to discourage young graduates from country practice. Expansion of the School was blocked for the same reason. More graduates would only mean more specialists where they were needed least. Yet it was from a young dean at the Medical School that the proposal came which galvanized the state's doctors, communities, and medical societies into action.

Nothing in the so-called Murphy Plan, named for Dean Franklin D. Murphy, who was the son of a pioneer member of the Medical School faculty and who was just beginning his administration at the Medical School in 1948, was new. Others had wanted to expand the Medical School, provide more postgraduate and preceptorial training, and entice young doctors into the rural areas by aiding them in clinic and office construction. It was Murphy's supreme achievement, however, that he made the legislature and people of Kansas see that these things were all inextricably tied together and that piecemeal reform must fail. By presenting a unified plan which tied an expanding Medical School to a vastly

increased program of postgraduate training and a drive to encourage young doctors to go to the rural areas, Murphy provided an extremely attractive package appealing to doctors, farmers, and legislators alike.

There were thus three essential parts to the Murphy Plan. First, the Medical School must train more doctors, nurses, and technicians. To add even twenty more medical graduates each year would require a marked expansion of facilities. Murphy told the Kansas legislature that more than four million dollars and a larger operating budget would be initially required. For its part the Medical Society would do all within its power to help communities find the new physicians they had so long sought. In Murphy's view the major deterrent to rural practice was the lack of equipment and office space to practice modern medicine. Already in debt, the young graduate was "naturally reluctant at this stage to pyramid that debt by building or remodeling for office space or by purchasing expensive medical equipment." It was Murphy's belief that doctors would come if the communities desiring them could provide minimal facilities, including an office, examining rooms, reception room, a diagnostic X-ray laboratory, and a small clinical laboratory. This could be made a community project, with every citizen taking a stake in the health of his town. "A young doctor," Murphy concluded, "would settle in a community, pay a fair rental for office space and equipment out of current income, and be able to start to work with the type of tools he has been taught to use." Scholarships would never have this result, for any aid which obligated a graduate to return to a particular area to practice would take no account of the reason why a young man was reluctant to go to a rural district. Experiments in granting such scholarships had in fact already failed.

Finally, Murphy foresaw a vast expansion of postgraduate education as a vital part of his program. For one of the drawbacks to rural practice was a sense of "medical isolation" from

the hospitals, medical centers, and advanced research laboratories the doctor had seen in his student days. If the rural doctor could not come to the medical center, then the medical center must be brought to the rural doctor. Already the Medical School was co-operating with the Kansas Medical Society and the State Board of Health in plans to build an outstanding postgraduate program in Kansas. Practicing doctors would have the benefit of circuit courses in a number of specialties at strategic points throughout the state, short refresher courses at the School itself, and eventually formal postgraduate training when adequate facilities were available at the Kansas City site. Once the complete program was in operation the entering student would be repeatedly told "that he is entering upon a 40-year program." An obligation to keep informed throughout his lifetime would thus be inculcated in the young doctor, and the people of Kansas, whether city or country-dwellers, would be assured of the best of medical care.[11]

In January, 1949, the Murphy Plan went before the legislature of Kansas. By this time it had the backing of the Kansas Medical Society, the State Chamber of Commerce, the Kansas Farm Bureau, the State Board of Agriculture, and a score of other organizations. Already there was heartening evidence that young doctors could be attracted to the smaller towns of the state. To McLouth in Jefferson County, for example, a town of five hundred persons, some of whom had suffered unattended heart attacks, came Dr. Robert Snow in November, 1948. The local Kiwanians went along the street soliciting money for the down payment on his house. They guaranteed his purchases of medical supplies and started plans for an office building. When the doctor arrived, five hundred persons from the neighboring countryside filled the high school gymnasium to welcome him.[12]

The bill enjoyed strong support from Governor Frank Carlson. Murphy himself gave effective testimony. Newspapers rallied to its support. There was virtually no opposition. The rural

health bill, as it was called, was the first important act passed by the 1949 legislature. In all, with matching funds, over $4,300,000 was available to Dean Murphy's school and hospital. A giant construction program was immediately begun. The School of Medicine had passed a vitally significant milestone in its march to national stature and professional recognition.

By the end of Murphy's tenure as dean in 1951, when he left Kansas City for wider fields of usefulness as chancellor of the University of Kansas, great strides had been made in carrying out the program which he had promised the legislature. A new basic science building, a postgraduate faculty and student center, and a great expansion of hospital beds, particularly for chest and psychiatric disease, were in prospect or already in existence. Postgraduate education underwent a phenomenal revolution. Murphy could tell the Women's Chamber of Commerce of Kansas City in 1951 that over 85 per cent of the state's physicians under sixty years of age had attended some course during the preceding year. By 1953 Kansas would rank first in the nation in postgraduate medical education. Out of the rural health program, too, had come a new preceptor program for medical students. With the enthusiastic co-operation of the Kansas Medical Society, every student before graduation began to spend six weeks with an experienced small-town practitioner, accompanying him on his rounds, helping in his office, and getting a taste of the doctor's social and civic life as well. Here were the makings of even closer co-operation between the doctors and future practitioners of Kansas, as well as between the Medical School and the Kansas Medical Society. This pioneering (in a double sense) venture was reported in the press and a national picture magazine in 1950.[13]

Most important of all, this emphasis on general practice and the initiative of many small communities combined to bring young doctors into the rural areas of Kansas. During 1950 and 1951 seventy-nine physicians began practicing in Kansas towns

with a population of 1,500 or less, thus reversing a fifty-year trend. The Kansas Medical Society reported in 1951 not only that the Murphy Plan was working but also that in some instances a second doctor had been called to a town that had no doctor at all only a few years before. Typical was the experience of Bird City, a high plains village in the northwestern corner of the state, which had tried for ten years to get a doctor. In 1951 its citizens had not only a doctor but a small hospital financed by more than a hundred families, which had given thirty thousand dollars in gifts, loans, and labor toward its realization. The influx of younger physicians into the state pushed down the average age of the Kansas doctor from 55 in 1948 to 50 in 1954. By 1957 Kansas could boast that not a single county in the state was without a doctor. Further, there was no community with a population over one thousand which did not have its own physician. This was a remarkable record indeed, and many honors were heaped upon Dean Murphy, including his designation by the United States Junior Chamber of Commerce as one of the ten outstanding young men in the nation in 1949.[14]

Under Murphy and his successor, W. Clarke Wescoe, the Medical School struck out in other new directions. In 1949 the School was the first in the nation to use television regularly in its medical teaching. Two years later Kansas led likewise in the installation of color television for daily teaching purposes. By 1956 researchers were investigating the possibility of endoscopy via television, by taking the camera eye down a patient's throat and transmitting the image to a television screen. For the first time, too, the Medical School became a great research center. Where Wahl had been unable to find six thousand dollars for research a few short years before, a research budget amounting to one million dollars annually was realized by the late 1950's. Considerable research was being carried on in cancer and heart disease, as well as polio, tularemia, and a dozen other fields. The School was an international center for the distribution of the

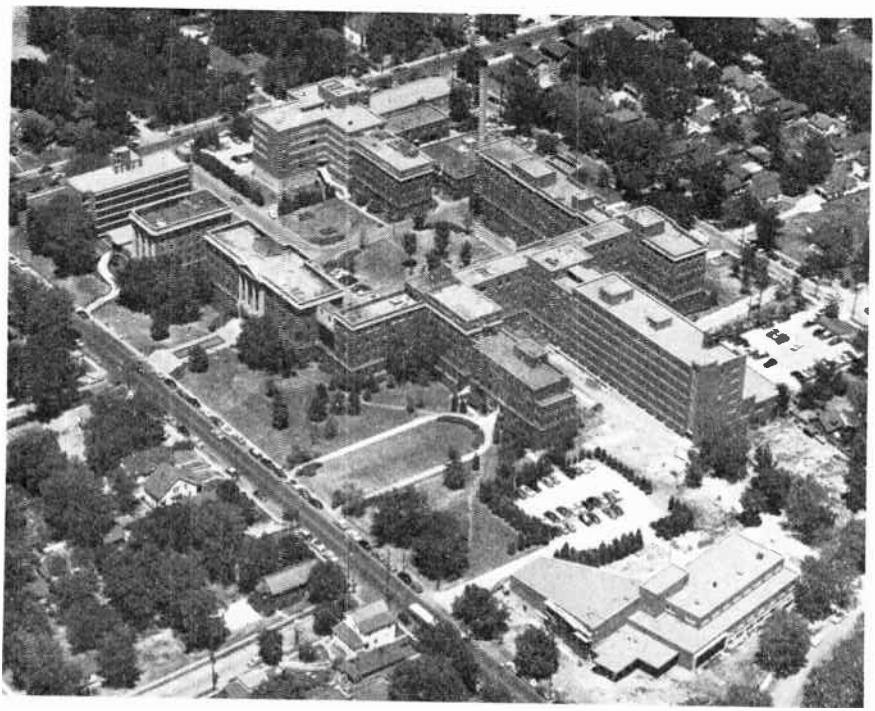
specific vaccine for polio virus. At Lawrence the Department of Anatomy under Paul G. Roofe was especially active in research. Roofe also made a study of the curriculum of a number of medical schools across the United States in 1952. He found that one major weakness was the universal tendency for every department to regard each student as a potential specialist in that field of knowledge. "In other words," said Roofe, "we have tried to make every medical student an anatomist, a biochemist, a surgeon, and a physiologist." Roofe advocated greater integration of the basic sciences. The old system was becoming too unwieldy and expensive. Instead of anatomy, physiology, and biochemistry, why not study human biology in all its wonderful interrelatedness? Here was a revolutionary change, begun in the late 1950's, which promised new horizons to the Kansas medical student of the future.[15]

There were other changes. In 1955 the bachelor's degree was at last required for admission. Enrollment climbed to 450 medical students in 1952, and there were another 1,700 taking training in nursing, medical technology, therapy, dietetics, X-ray technology, and postgraduate medicine. In a very real sense the School had become a "Medical Center." Wisely, too, Dean Wescoe counseled entering students to study broadly rather than intensively during their collegiate years. Reflecting the humanistic bent of the School's greatest teachers, the catalogue advised that "the field of medicine is concerned primarily with people rather than with disease. It is humanistic as well as scientific."[16]

The last chapter in the history of the Medical School has not been written. By the late 1950's, after a decade of momentous change and daring innovation, the whole atmosphere of the Medical School had changed. A restless dynamic movement, a sense of work never ended, of research never done ran through the day-to-day routine of its clinics, laboratories, and classrooms. Only one major project remained to realize the earlier dreams of Lippincott, Williston, Sudler, and Wahl. A final building

was needed to house the departments of anatomy, physiology, and biochemistry at Kansas City and bring the Medical School at long last within the confines of a single campus. This, too, was in immediate prospect. With justice the editor of the *Garden City Telegram* could write that "one cannot visit the KU Medical Center in Kansas City, Kansas, even briefly, without coming away full of admiration and praise for the progress all Kansas medicine is making there. . . . On the KU medical center side, the sound of the builder is never stilled. More new buildings are being erected, still others are being planned. The medical center which will serve this state tomorrow is going to be a bigger and better one than the one we have today."[17]

There were strong links between these revolutionary developments in the Medical School and the simultaneous surge toward a new era in the treatment of the mentally ill. Both were informed by a determined public opinion. A poll of 1949 showed that more than 95 per cent of the people of Kansas favored larger appropriations for the treatment and prevention of mental disease. Franklin Murphy, who had spurred the rural health plan at the Medical School, also served as chairman of Governor Carlson's advisory committee which urged the great increases in mental health appropriations of 1949. There was widespread agreement, too, that the Medical School should have a larger hand in the teaching of psychiatry in the state. Beginning in 1953 every senior medical student was asked to spend six weeks in a state mental hospital, to the mutual benefit of hospital and student. In 1956 the rise of psychiatry to full status in the medical family was symbolized at the Medical School by the moving of the Department of Psychiatry from the old, now vacant, shabby "goat hill campus," where the School had its beginnings, to a new three-story unit on the Rainbow Boulevard campus. Mental illness was no longer something to be studied apart from the other ills of humankind.[18]



University of Kansas Medical Center

Above: Administration Building, Topeka State Hospital
Below: A nurse and an aide chatting with two patients, one crocheting and the other painting
Courtesy of the Topeka State Hospital

But a decade earlier there seemed little prospect for so notable an advance in so short a time. More than five thousand Kansans languished in state hospitals in 1946, welfare charges more than medical patients. To be sure, there were signs of a national recovery of conscience for past neglect of the insane. Mary Jane Ward's book, *The Snake Pit,* and the film based upon it, as well as Albert Deutsch's shocking exposés of the degraded condition in which he found afflicted humanity in state hospitals across the nation, stirred the hearts of many. But in Kansas in 1946 a survey conducted for the Kansas Legislative Council revealed the same old overcrowding, lack of trained doctors, low salaries, and abject resignation. According to William C. Menninger, Kansas was very near the bottom of state hospital systems in its atrocious commitment laws, patient-doctor ratio, and per capita expenditures. More precisely, Kansas ranked 46th in per capita appropriations for the mentally ill. Where the national average was one doctor for every 150 patients, Osawatomie could count only one for every 855 of its inmates.[19]

At this very time, when Kansas state hospitals were reaching their lowest ebb, a spectacular growth and advance in psychiatric facilities was taking place in Topeka. In the fall of 1945 the Menninger Foundation established a pioneering school in psychiatry, offering a three-year course of study to prepare graduate physicians for certification by the American Board of Psychiatry and Neurology. This new venture was inspired by the growing need for psychiatrists and the large number of former Army and Navy doctors seeking advanced training in psychiatry. But shortly after plans for the School were announced, there appeared in Topeka Lieutenant-Colonel Arthur Marshall, representing General Paul Harvey of the Veterans Administration, who hoped to interest Karl Menninger in some consultative work. Instead there emerged from this conference a plan to make the existing army hospital in Topeka (Winter General Hospital), a veterans' hospital where many of the psychiatrists so badly needed by the

Veterans Administration would be trained. One version of this famous conference has been related as follows:[20]

"You know," said Dr. Karl, "I can't understand how you can close Winter Hospital."

"Why?" asked the colonel. "It's deadwood clear out here in the Plains."

"Then you already have a neuropsychiatric training center in mind?" Dr. Karl asked. "I was going to tell you I could make that hospital into a neuropsychiatric training center and supply the faculty to train twenty-five psychiatrists."

"Only twenty-five!" Colonel Marshall exclaimed. "Make it fifty and I'll have the hospital transferred to the V.A. as quickly as we can get the Army out of it."

"Get them out by the first of the year," Dr. Karl said euphorically, "and I'll make it seventy-five."

"Hell," Colonel Marshall responded, "let's make it an even number—100. The V.A. has to have a pilot training hospital. We can get all the backing we want. There's nothing worse than a modest start. Now tell me about your faculty and how you'll set up the school. Whatever you haven't got we'll get."

There now burst upon Topeka that tremendous spurt of energy in psychiatric training which would thrust Topeka and eventually Kansas to the forefront of the mental health movement. Karl Menninger was not only to direct the teaching program for the scores of psychiatric students who began trooping into Topeka, but also to serve as manager of the Winter V.A. Hospital. Several hundred applications for admission to the training program flooded into Dr. Karl's office. By October, 1946, a total of 108 physicians were enrolled in the School of Psychiatry, which remained under the control of the Menninger Foundation. The quota promised Colonel Marshall was already exceeded! The educational program at the School was unique in the annals of psychiatry, combining clinical experience with lectures, seminars, case conferences, and assigned reading. Nor were the readings and courses all of a heavily technical nature.

Further instruction in English and public speaking, in Karl Menninger's view, was necessary for skill in verbalization. Nor should a psychiatrist be ignorant of music, poetry, or especially literature. "It has been our experience," he wrote in 1947, "that many residents in the early days of their training need to be directed first to a better acquaintance with such sources as the Bible, Aesop's Fables, Grimm's Fairy Tales, and Dostoevski's novels rather than to technical treatises on Gestalt psychology and psychoanalysis."[21]

To the training program for psychiatrists were added in time additional programs for clinical psychologists, psychiatric aides, and social workers. Expansion of the number of psychiatric nurses in training was also undertaken. Further co-operation with the University of Kansas was reflected in the School of Clinical Psychology, whose students spent most of their time in courses at the University, but received practical training and experience at the Menninger Foundation or the Winter Hospital.[22]

There was high praise for this new endeavor of the Menningers. This was the largest training program ever attempted by a Veterans Administration Hospital. Of the 210 doctors in the psychiatry education program of the Veterans Administration in 1946, about half were being trained in Topeka. By 1952 more than two hundred physicians had been trained at the Winter Hospital, and more than 26,000 patients treated. One hospital consultant for the Veterans Administration wrote to General Hawley that "Topeka represents the greatest step in medical progress ever made by our Veterans Administration." Albert Deutsch came away from Topeka with the pronouncement that the name Menninger "is to American psychiatry what the Mayo Clinic is to American surgery." He found two ironic elements in the fact that Topeka had become the mecca of American psychiatry. "One is the fact that Topeka—prosaic capital of a Midwest prairie state—should have been chosen as the scene of the biggest development in modern dynamic psychiatry, most

sophisticated of the medical arts, rather than some metropolitan center such as New York, Boston or Chicago." The second bit of irony was that this dynamic thrust should occur in a veterans' hospital, only yesterday "the backwaters of American medicine."[23]

Both the Menninger Foundation and the Winter V. A. Hospital thrived in this agreeable partnership. A huge new psychiatric hospital for Topeka was approved by the federal government in 1946, though it was a long time before construction began. The Foundation, too, planned an expansion program in research, teaching, residencies, and new buildings. More and more psychiatrists and other specialists were attracted to Topeka. In 1949 when the Foundation hired Dr. Robert Jokl from the Vienna Institute for Psychoanalysis, only two teachers were left at that one-time world center of psychiatry. By 1954 the Foundation was able to open its 200-bed C. F. Menninger Memorial Hospital. Offers to move to Pennsylvania, California, and other places across the nation were uniformly rejected. By the late 1950's a seventeen-million dollar expansion program was in progress, and a start had been made in providing free and low-cost psychiatric care to a selected number of patients.[24]

The great impact of the Menningers upon the world of psychiatry was only slowly felt in Kansas. While the nation applauded the exciting enterprise of the Menningers at the Winter Hospital, the state hospitals of Kansas were still hopelessly sunk in stagnation and neglect. Then, slowly at first, later more swiftly, things began to happen. A superintendent at the Topeka State Hospital refused to let his small staff buy needed drugs. Three of the five doctors on the staff subsequently resigned. This was widely heralded in the press. Then some serious accidents were reported, including the death of one Topeka inmate whose autopsy revealed four broken ribs. A number of newspapers and professional organizations became intensely interested now in conditions at these institutions. The

Kansas Psychiatric Society condemned what it called "the deplorable and sad condition" of the mental hospitals in the state. One unidentified inspector told the superintendent at Topeka following a visit: "You sense the air of utter hopelessness, the penal atmosphere. . . .you find yourself thinking that most of these people would be better off dead." In the *Kansas City Star* appeared a long series of ably written articles by Charles W. Graham describing conditions in Osawatomie, Topeka, and Larned. At Osawatomie, he told *Star* readers, he sensed the atmosphere of fear and uncertainty and despair which hung over its inmates. "For two hours," he wrote, "I watched the scene. I heard hard-voiced attendants shout orders, and saw patients jerk and start, and watched their eyes show fear. If a patient got up to move about, he was ordered back to his seat. If he didn't obey, he was shoved into it. I did not see any resist, but I wondered what would have happened if one had. I tried to talk to a few, but desisted when they looked fearfully at the attendents and kept silent."[25]

In the meantime Governor Carlson had appointed an advisory committee to study the whole state hospital system in Kansas. This committee, headed by Dean Murphy of the Medical School, included Karl Menninger, Haddon Peck, president-elect of the Kansas Medical Society, the speaker of the House of Representatives, and the President pro tem of the Senate. Their recommendations, announced as the new legislature convened in 1949, included a great increase in trained personnel at all levels, a vastly accelerated building program, and, most important, the designation of the Topeka State Hospital as a teaching institution, where all types of psychiatric personnel might be trained. The Topeka Hospital should also serve as a central hospital for all of Kansas, where those with a good chance of recovery might be sent for active treatment. These recommendations were approved by the Governor and submitted to the legislature in his budget message. He asked for four-

teen million dollars for the state hospital program over the next two years, an extraordinary increase of 75 per cent![26]

But the legislators and citizens of Kansas were ready for heroic measures. Virtually every newspaper in the state was by now behind a bold program of action. The newspaper exposés, the statements of dozens of Kansas leaders, a national television program in which William Menninger acted as narrator, and the pent-up enthusiasm of mental health workers seeing the prospect of change all played their part in winning public support. Critical action came from the Kansas Mental Hygiene Association, which enlisted the interest of legislators and officers of influential state organizations, as well as the support of the League of Women Voters, the Kansas Council of Churches, the Congress of Parents and Teachers, and other important groups. To the gratification of all the champions of reform the legislature approved the Governor's recommendations virtually *in toto.*

Typically, the Menningers pleaded throughout this campaign that "brains must come before bricks." A training program was the first necessity. Without more psychiatrists, trained nurses, therapists, and aides no amount of new building would cure a single patient. Said Karl Menninger: "Many patients will get well in a barn if you have the right doctors and the right treatment. We don't want them to live in barns, but staff and treatment must come first." The Menningers took the responsibility for recruiting a professional staff and beginning a training program.

No more thrilling transformation has ever taken place than in the state hospitals of Kansas after 1949. Out of the Menninger-guided training program at Topeka came the psychiatrists, clinical psychologists, social workers, nurses, and occupational therapists who brought hope and recovery to hundreds of the mentally ill of the state. The number of attendants was doubled, as was their salaries, and they too were now given expert train-

ing in their delicate mission. Group therapy, new treatments, individual attention, and above all love and kindness wrought their magic. Within two years the hospital population at Topeka dropped from nearly 1,800 to 1,530. Several hundred people were found who had no mental illness at all but who had been there so long that their families no longer claimed them. Human interest stories abounded. Newspapers featured stories of a Scandinavian whose only abnormality was that he could not speak English but who had spent countless years in confinement and seclusion. A woman who had not spoken for eight years responded to a doctor who spoke regularly to her. She left the hospital to take a career in practical nursing, after twenty-two years of being isolated in an asylum because no one had ever taken an interest in her.

By 1954 Kansas, long behind the nation in care of the mentally ill, had become the envy of her sister states for the record she was now making. Where there had been 15 physicians in her state hospitals in 1948, there were now 61; 56 nurses instead of 4; 976 attendants instead of 358; 23 social workers where there had been none. Before 1948 two of every three patients entering a Kansas state hospital failed to improve or recover; by 1954 this ratio had been reversed and two of every three went home. To Ohio, Illinois, Texas, Michigan, and Kentucky went either Karl or Will Menninger to explain to their state legislatures what Kansas had done and why it was a tragedy to build more brick and mortar when the first need was doctors.[27]

There were other changes in Kansas. Straitjackets and other restraints were abolished. Outpatient clinics were established at the hospitals. A clinic for children was opened at the Topeka State Hospital. The Parsons Hospital was converted to a place of treatment for mentally disturbed children. Group therapy, new drugs, and more recreation were being used at all hospitals. In 1952, too, the people of Kansas voted by nearly two to one to assess themselves an additional property tax to replace the

outmoded buildings at the state mental institutions. The 1953 legislature removed the hospitals finally from threat of political patronage by putting them under the direction of a trained psychiatrist, who was paid twice the governor's salary! In 1954 a new private psychiatric hospital was opened by the Mennonites in Prairie View.[28]

Unbelievable changes had taken place since 1948. A returning reporter commented on the transformation of Osawatomie in a few words which might well serve as the measure of the Kansas revolution: "Gone is the rocking chair brigade, the rows of patients staring into space, withdrawn into their own confused inner world. Missing are the crowded wards, the silent people sitting, the occasional screams from the more violently disturbed that are the trademark of an asylum." So swift was the transformation that many Kansans themselves were unaware of how much had happened and how far Kansas had moved beyond her neighbors in the care and hope she gave her mentally ill. In the Kansas medical renaissance after 1945 no achievement shone brighter than this.[29]

In all of the great achievements after World War II—hospital growth, rural health care, and transformation of the state hospitals—the State Board of Health had had a hand. It was the Board which drew up the schedule of priorities for hospital construction and administered the more than six million dollars which flowed into Kansas under the Hill-Burton Act. Board members, too, were vitally interested in the rural health and postgraduate programs, while co-operating in a half-dozen other research and educational ventures of the Medical School. And the Board, finally, through its Division of Mental Health, established in 1946, exerted itself on behalf of reform in the state hospitals of Kansas.

By the 1950's the federal government through the divisions of the Board of Health was contributing close to two million

dollars annually to public health work in the state. By far the largest amount went for hospital construction, but there were sizable grants for general health work, maternal and child hygiene, tuberculosis, heart disease, and cancer. So rapid was this expansion of federal aid, in fact, that a Kansas Commission on Federal-State Relations urged in 1954 that the federal government withdraw from most health activities. Such enterprises as child welfare, old age assistance, heart disease, cancer control, and mental health should be purely state and local concerns, in the view of the Commission. There was little evidence by the late 1950's, however, of any serious change in the pattern of federal health assistance to Kansas.[30]

One major change in the State Board of Health in this period was its complete reorganization by the Kansas legislature in 1951. Since its foundation the Board had been made up of nine medical doctors, originally divided among homeopaths, eclectics, and regular physicians. There had long been opposition to this from osteopaths and other cultists who resented the medical profession's domination of the Board of Health. These cults were joined in the late 1940's by some of the other health professions—nursing, pharmacy, dentistry—that now sought representation on the Board. There was some feeling that the Secretary had sometimes been arbitrary in his handling of questions involving the pharmaceutical and other professions. Opposition came too from dentists because of a proposed reorganization of the Division of Dental Hygiene which would put that division under a medical doctor. A new Board of Health of ten members was authorized by the 1951 legislature, made up of five physicians, one dentist, one pharmacist, one sanitary engineer, one hospital administrator, and one veterinarian. Floyd Beelman and several others immediately resigned in protest at this legislative action. But the Kansas Medical Society indicated its willingness to co-operate with the new Board in the interests of the health of the state. On the whole this change was accepted as

one probably long overdue and occasioned little outright opposition.[31]

There were other significant new directions in Kansas public health work in the early 1950's. A new vital statistics law in 1951 clarified and simplified some of the procedures followed over the past four decades. The undeniable importance of health education was finally recognized in the creation of a separate division of health education services. Much new effort was thrown into a campaign to bring more full-time local health departments to Kansas communities, whether by individual city and county initiative or through joint city-county or regional support. Finally, the Board was kept busy in these years clearing the Kansas River of sewage, handling the emergency problems created by the great floods of 1951, and urging fluoridation of public water supplies. By 1957 more than 325,000 Kansans lived in communities whose drinking water contained natural or added fluorides.[32]

Along with these new diversions, the Board continued to fight in league with other allies against cancer, heart disease, and tuberculosis. A separate administrative division for cancer was created in 1946 and for heart disease in 1952. Cancer clinics were held in a number of cities after 1947 with the aid and support of the Medical School, Kansas Medical Society, and American Cancer Society. Annual conferences on cancer at Wichita were begun. Special films for the public and literature for the doctor were accumulated. From the federal government came grants-in-aid beginning in 1948. The Medical School stressed cancer in its circuit and postgraduate courses. A Kansas specialist, C. C. Nesselrode, long active in the Kansas campaign against cancer, was honored with the presidency of the American Cancer Society in 1948. There was good reason for this wide concern. During the 1950's cancer claimed the lives of more and more Kansans, holding second rank among disease killers in the state, and emerging as the number one cause of

death (next to accidents) of Kansas children. By the late 1950's great hope was being kindled that this terrible affliction might yet be overcome through exciting new discoveries in virus and drug research.[33]

Less grim but even more devastating than cancer was heart disease, which took more than double the toll of Kansas lives claimed by cancer. Here, too, there were co-operative efforts by the Board of Health, Medical Society, voluntary agencies, and the Medical School to arrest or at least slacken this trend. It was the Kansas Medical Society in this case which took the initiative in a state-wide campaign of education for doctors and laymen in 1949. Included in this program which was operated on a small federal grant were a state registry of heart disease cases, assistance to doctors in more accurate diagnosis, and state-wide lectures on the care and prevention of heart afflictions.[34]

The growing numbers of Kansans suffering from heart disease, cancer, and other so-called degenerative diseases focused more and more attention upon the health problems of the aged. In 1952 more than 60 per cent of all deaths in the state were due to cancer, heart disease, and vascular lesions of the central nervous system. Often these deaths were preceded by tragic months of suffering, mounting hospital and medical expense, and family desperation. There were also the aged sufferers from arthritis, rheumatism, and other crippling diseases whose chronic disability made them a heavy burden upon family and friends. What, finally, of those elderly persons who had become senile yet did not belong in a hospital for the mentally ill?[35]

With a population steadily growing older, Kansas and the nation showed increasing concern over the special needs of the convalescent, the senile, and the chronically ill. A whole field of medical study and research known as geriatrics broke off the main branch of general medicine. As early as 1936 the *Journal of the Kansas Medical Society* devoted a discerning editorial to this infant specialty and wished it well in the achievement of

professional status and dignity. Twenty years later scarcely another health problem in Kansas was receiving so much attention. Conferences on the problems of aging, the first held at the University of Kansas in 1951, were becoming more common. A special Division of Geriatrics was created in the State Board of Health in 1952. The University of Kansas Medical School established the first Department of Gerontology in the country, headed by Dr. Edward Hashinger. Boarding homes for the aged and the chronically ill were brought under state supervision. More important, concrete steps to provide new facilities for the aged and the chronically ill were being taken. A special geriatric building, providing custodial and nursing care for senile patients, was erected on the grounds of the Larned State Hospital. At Osawatomie a special course for nursing-home administrators was launched in 1957. At Arkansas City a unique attempt by the municipal hospital to provide for aging convalescents was attracting national attention in the late 1950's. Other hospitals, including Hadley Memorial Hospital at Hays, were likewise carrying on closely watched experiments in providing inexpensive minimal care for those who needed more than home custody but less than hospital care.[36]

More successful than the hostilities against cancer and heart disease were the hammer blows dealt tuberculosis in the 1940's and 1950's. From 448 deaths due to tuberculosis in 1940 the mortality dropped below 200 in 1950 and fell further to 100 in 1953. Public education, mass X-rays, tuberculin tests, new drugs, especially streptomycin and isoniazid, and increasing medical knowledge all joined forces in seeking to eradicate the White Plague from Kansas. At the Norton Sanatorium many important changes had taken place. Surgical equipment was added in 1934, pneumothorax was being extensively employed in the 1940's, and chemotherapy rose in prominence with the new drugs introduced after World War II. A new hospital building housing 238 beds was first opened to the public in 1939. At the urging

of Superintendent C. F. Taylor, who began his long and successful career at the Sanatorium in 1930, a start was made in spreading sanatorium facilities across the state. In 1945 a diagnostic clinic was opened at Hillcrest Sanatorium in Topeka. It was Taylor's belief that such clinical centers might sort out patients who needed treatment at Norton. This would enable the State Sanatorium to devote more time and attention to research, surgery, and hospital patients. In southeastern Kansas, where tuberculosis staged its most virulent attacks, there was still constant pleading for a tuberculosis hospital. Yet not until 1955 was construction begun on the building which studies thirty years earlier had shown to be vitally necessary. Opened in 1957, the new Southeast Kansas Tuberculosis Hospital at Chanute admitted 243 patients from the surrounding mining territory in its first year of operation.[37]

There were other promising new developments in the 1950's. At the Medical School the first endowed chair of thoracic diseases in the United States was established in 1953 by the Kansas Tuberculosis and Health Association. Four years later, in honor of Charles Lerrigo, long director of the Association's activities, a research laboratory was established at the School. In 1958, with the closing of the Hillcrest Sanatorium, the Stormont-Vail Hospital announced plans for a diagnostic and treatment center for tuberculosis.[38]

But the most controversial event of the 1950's in tuberculosis work in Kansas was the study of tuberculosis facilities by Dr. J. B. Stocklen of Cleveland, Ohio. Supported by virtually every health agency in the state this survey resulted in a lengthy report and series of recommendations in 1956. Stocklen found that the death rate from tuberculosis in Kansas was less than one-half that of the nation as a whole, yet in Cherokee County it was three times the national average. More specifically, Kansas ranked 38th in mortality and 42nd among the states in cases of tuberculosis. As for the Norton Sanatorium, Stocklen found in-

adequate segregation of patients by age and type of disease, too little vocational rehabilitation, and some patients with positive sputum engaged in work tasks beyond their energies. He criticized the employment of patients in the Human Relations Department, whether still receiving care or discharged, because of their lack of formal training. In his recommendations Stocklen suggested greater integration of all agencies concerned with tuberculosis and centralization of all control activity, preferably under a specially trained officer of the Board of Health. Further recommendations included more diagnostic clinics, more X-ray surveys in the areas of highest incidence of the disease, and a co-operative program with the Kansas Medical Society for care of recalcitrant patients who refused sanatorium treatment. Finally he urged that no further beds be provided at Norton, at least for the immediate future.[39]

The so-called Stocklen Report stirred a state-wide discussion of the tuberculosis program in Kansas. Some of the Stocklen strictures and recommendations were themselves criticized, doubtless with some justice, by Superintendent Taylor. Centralization, in particular, was undesirable in a tuberculosis program, in Taylor's view. Every tuberculosis sufferer, he wrote, should be met as a person on his terms and on his intellectual horizon, not that of the institution. "This is why centralization and undue control from a central authority is unwise. . . . Too much central authority means protocol and red tape. It reduces the patient to an automaton. It can be much more efficient but it is also less humane." As for the Human Relations Department at the Sanatorium, Taylor stoutly defended his policy of hiring patients. Understanding and patience, not schooling and degrees, were most needed for success in this work, he argued. Employment of patients was in itself a sound program of vocational rehabilitation. Finally, Taylor was certain that segregation of patients, especially young children from adults, was not necessary and was often unwise. Science, he believed, must

be tempered with humanity. Whatever the merits of the arguments in the debate, this re-examination and soul-searching was probably on the whole an excellent stimulus to anti-tuberculosis work in Kansas. Out of it would doubtless come a sounder and better-conceived program for the future.[40]

One final triumph of modern medicine remains to be noted in this account of health and disease in Kansas in the 1950's. This was the conquest of poliomyelitis. Though polio had never taken a large number of Kansas lives, its withering attacks on young children and often pitiful crippling of the strong and healthy had a special impact on the sympathies of all who witnessed its ravages. Severe epidemics in 1940, 1946, and 1952 had sorely tried the helpless doctors of the state. Gamma globulin, DDT, the Sister Kenny method all had their devotees, raising hopes and then inflicting disappointments on those who hoped for a cure or an end to the crippling effects of polio. Then in 1955 came the boon of the Salk vaccine. Doctors, medical societies, and health officers now joined in a massive effort to inoculate the young of the state against this now subdued killer. By the spring of 1956 a quarter-million Kansas children under ten years of age had received the protection of the Salk vaccine—a wonderful tribute to the medical profession and the Board of Health of the state.[41]

Through their medical societies and state organizations the doctors of Kansas had been intimately involved in the vast changes which came over Kansas medicine after 1945. In planning hospitals, bringing doctors to unattended communities, fighting cancer and heart disease, and organizing polio immunization drives the Kansas Medical Society and its county units had taken an important part in raising the standards of medical care in Kansas. In addition, the Society had worked out with the Veterans Administration the first state-wide plan in the nation to give medical treatment and hospitalization to veterans in

their own communities. Later the Society would co-operate fully in the national Medicare program for servicemen's wives and dependents. Throughout this period the Society, whose membership reached 1,850 in 1958, maintained close and friendly relations with other medical and health organizations of the state. According to one committee report, for example, the Society's relations with the Medical School "are currently at the best level of any time in history." This bespoke a wholesome atmosphere of common goals and mutual respect among Kansas medical men, whether private practitioners or faculty members, health officers or institutional specialists, which went far to explain the remarkable renaissance in Kansas medical progress.[42]

One of the many evidences of progress and movement in Kansas medicine was the renewal of growth in specialty organizations. Radiologists and pathologists, psychiatrists and anesthesiologists, obstetricians and pediatricians all organized new societies in Kansas after 1945. In 1948 a Kansas Academy of General Practice was also born to stimulate and preserve high standards of practice among the general physicians of the state. By 1956 there were ten specialty societies meeting in Kansas, including urologists, orthopedic surgeons, otorhinolaryngologists, and heart specialists in addition to those cited above. The 1957 edition of the Directory of American Specialists listed the names of 476 Kansans spread over nineteen specialties. Over half of this number were engaged in the four specialties of internal medicine (80), surgery (64), psychiatry (58), and radiology (43). Wichita claimed the largest number of specialists, followed by Kansas City and Topeka. [43]

There was a final battle to be won before the doctors of Kansas could take full pride in the medicine practiced in their state. This was the long-fought battle now four decades old on behalf of a uniform medical practice law in Kansas. Following the Second World War there had been new efforts to win by con-

cession and compromise the osteopaths to their side in this struggle. But instead of a basic science law which would assure a minimum competency in all practitioners, osteopaths fought for a composite medical board of physicians and osteopaths, with each passing on candidates from their respective professions. In 1948 the osteopaths brought a spectacular suit in federal court against the Governor and the Attorney General of Kansas for the prosecutions they had suffered in using drugs and surgery. Kansas osteopaths, they claimed, were denied due process of law in defiance of the federal constitution. Again the legal issue turned on the intent and right of the legislature of 1913 to bar osteopaths from surgery and drug therapy. This time the Kansas Medical Society produced as witnesses a number of regular doctors who had been practicing osteopaths or students in osteopathic schools in 1913. The evidence was overwhelming that osteopathic doctrine at that time excluded both drugs and surgery and that this was clearly understood by the legislature. "In other words," read the court's statement, "the osteopathic profession is classified and regulated as a drugless and knifeless healing art or science."[44]

Following this latest reversal in their fortunes, the osteopaths became more amenable to compromise. Further, the Murphy Plan was drawing some of the force from their argument that some farm communities were served only by osteopaths. In 1951 a compromise was arranged. Osteopaths then practicing were given the right to administer drugs and perform minor surgery in return for an osteopathic concession that future graduates of their schools would be required to pass the examinations of the regular Medical Board if they wanted these privileges. All practitioners of whatever school would henceforth be required to pass examinations in the basic sciences. After being approved by the House, however, this compromise was killed in the Senate by a loud outcry from the chiropractors. They objected vociferously to taking the same basic examina-

tions as medical graduates and osteopaths, claiming that chiropractic was not a medical procedure. Passage of this bill, warned the president of the Chiropractors' Association, "will sound the death knell of chiropractic in Kansas."[45]

Six more years of angry debate, legislative hesitancy, and attempts at compromise followed. An impatient legislature asked the osteopaths and physicians, now quarreling once more, to resolve their differences. Final compromise was expedited by an investigation of osteopathic colleges in 1955 by a committee of the American Medical Association which included Dean Wescoe of the University of Kansas School of Medicine. Among the investigators' findings was that current teaching in colleges of osteopathy was not cultist and that faculty members themselves were aware of the deficiencies in their schools and would welcome help from the medical profession.[46]

The last chapter in this ancient Kansas quarrel was written by the 1957 legislature. With support of the osteopathic and medical professions the legislators passed a basic science law as well as a new act governing the healing arts. Henceforward all new practitioners of medicine, osteopathy, chiropractic, or any healing cult must pass examinations in anatomy, physiology, chemistry, bacteriology, and pathology conducted by a board made up of one specialist from each of these fields. Then each successful candidate was eligible to apply for a license from the new eleven-member Healing Arts Board, made up of five physicians, three osteopaths, and three chiropractors. In each case Board members would examine only those candidates intending to practice in their own branch of the healing arts. One important concession was made to osteopaths then practicing in the state, who were allowed to take an examination in medicine and surgery. If successful, they would be permitted to practice medicine and surgery but not use the title M.D. Of the 220 osteopaths in Kansas, 160 subsequently took advantage of this op-

portunity to be examined in medicine and surgery and almost 90 per cent were successful.[47]

Thus ended the half-century of conflict between osteopaths and the medical profession of Kansas. There was much initial opposition from chiropractors, who challenged the constitutionality of the new law, but prospects were good that a long-term solution to the problems of medical licensing had at last been found. The ultimate compromise was not unlike the *rapprochement* of regular doctors and homeopaths sixty years before. In both cases, rising standards of education and practice in the irregular school had combined with a mutual concern for the public's protection to achieve a lasting agreement. Samuel Williston and Henry Roby, champions of the earlier compromise law, would have found much to cheer in the legislature's action of 1957.

The passage of a basic science law climaxed a remarkable decade of achievement. More hospitals now tended the sick than at any other time in the state's history; a half-century trend away from the rural practice of medicine was overcome; the state Medical School now spent more time and money in fundamental research each year than in the whole period from 1879 to 1947; mental hospitals had brought to a close the dreary annals of the past; and now the medical profession had fought its way to a higher uniform standard for medical practice in the towns and cities of the state. The Kansas doctor might well congratulate himself on the most splendid period of achievement in the entire history of medicine in Kansas.

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I

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