Pioneer Science and the Great Plagues

Cheville, Norman F

Published by Purdue University Press

Cheville, Norman F.


Purdue University Press, 2021.

Project MUSE. muse.jhu.edu/book/84018.

For additional information about this book
https://muse.jhu.edu/book/84018

For content related to this chapter
https://muse.jhu.edu/related_content?type=book&id=2892752
anniversary of the American Veterinary Medical Association. A historian at the National Library of Medicine improperly credited McEachran for creating the “model for the veterinary curriculum.” The truth is that McEachran, by failing to see the needs of the livestock industry, had devised a model for failure. More importantly, the article ignored the Ontario Veterinary College, the most impressive school of the time, and made no reference to pioneering American veterinary schools in Iowa, Ohio, and Kansas, or the dozen or more departments of veterinary science in midwestern and southern colleges of agriculture that were teaching impressive veterinary science courses on Detmers’s German model, several of them on the cusp of creating new formal veterinary schools. Both McEachran and Liautard, in their praise of Harvard, had failed to see the emerging potential of the land grant colleges and their astonishing impact on animal health.

The ultimate models for formal, science-based veterinary education in America came not from the private schools but from state-supported veterinary colleges which, under a university umbrella, gave them access to the best in science. Experts in chemistry, zoology, parasitology, botany, and, finally, microbiology were available that had profound impacts on the quality of education. Science faculties had direct effects through teaching veterinary students and indirect effects through stimulation of faculty to improve. Five university-affiliated colleges took the lead: Ontario Veterinary College, Iowa State College, University of Pennsylvania, The Ohio State University, and New York State Veterinary College at Cornell; without them, the veterinary profession might never have developed so firmly in science and into such a contributing force for good in society.

12. THE PIONEER STATE COLLEGES: IOWA, OHIO, PENNSYLVANIA, AND CORNELL

In 1884, Frank Billings, director of the new Pathobiologic Laboratory at the University of Nebraska, referred to the United States as “a country where there are very few well-educated veterinary surgeons, where there is no true value of veterinary science; . . . a country where quacks and empirics of every form are nourished and appreciated before the well-educated practitioners, in only too many instances; . . . where there is no official examination of the products from food-producing animals, and where there are neither
laws nor regulations for the suppressions of animal diseases; . . . where there is no well-organized veterinary school.” Billings should have noted the changes going on next door.

Iowa Agricultural College had its first veterinary school graduate in 1879—George Faville. Dean Millikan Stalker, recently returned from Canada with his VS earned at Ontario Veterinary College, was teaching all clinical courses. He was lauded as a great lecturer—students agreed that “no one at the time had the ability to express himself in better and clearer English and could present his subject more effectively . . . .” His expertise was in toxic plants, especially ergotism and crotalism. In the biennial reports to the governor, Stalker documented contagious diseases most important in the economy of the Midwest: bovine tuberculosis, Texas cattle fever, and glanders in horses.

Glanders was “alarmingly prevalent” in horses of Iowa. It was a heritage of the Civil War—military horses returning home brought glanders to the Midwest, causing the first state regulatory services to be organized and the first state veterinarians to be appointed. Worse for the horseman was that glanders was communicable to humans with the same fatalities as in the horse. Stalker notes four human deaths that occurred on farms where he had treated equine glanders. In one, “a poor German living about seventeen miles northwest of Denison was engaged in breaking prairie.” He had purchased a horse with a “cold” that had spread to other horses. One had died and “the owner concluded to make a post mortem examination. . . . Five days later the man was attacked with glanders, and died on the fifteenth day.” In 1881, Governor Geer commissioned a veterinary surgeon to visit different districts of Iowa affected by glanders with the power to “take steps as he deemed necessary to secure protection.”

Anthrax was a special problem in wet years when the natural bogs and undrained marshes in the Midwest promoted activation of latent anthrax spores in the soil. Cattle died suddenly—often thought to have been hit by a lightning strike. But it was sepsis: *Bacillus anthracis* spores entered their body and transformed into aggressive, capsule-bearing virulent bacteria that grew rapidly and uncontrollably to massive numbers in the bloodstream. In 1880, Joseph Boggs, a farmer in Mills County, Iowa, skinned one of his cows that had died suddenly and threw the carcass into a pen of nine pigs; the next morning all nine were dead.

In the first veterinary school class, Stalker taught about “contagion,” unaware that bacteria were specific causes of disease. As to the cause of glanders, he wrote that it most likely was of “spontaneous origin” and that any protracted...
debilitating disease might eventually develop into glanders, even though the patient may not have been exposed to the disease. But then Stalker continued with, “Contagion is the chief, if not the only, cause of glanders in this country.” How he defined contagion is a bit mysterious, and how a disease arising spontaneously could become contagious was more so.

Stalker was an avid reader and learned quickly of the discoveries in Europe. By the end of the decade he was leading the state in understanding the dangers of these new bacteria, writing in his annual report of 1885: “The fact that the milk of tuberculous cows is charged with poison germs should cause it to be rejected in every instance as an article of food. Tuberculosis has been experimentally developed in the lower animals by feeding the milk of cows affected with the disease. As tubercle in man and in the bovine species is identical, the conclusion is inevitable that a similar experiment on man could be followed by a similar result. The fact that consumption prevails to an alarming extent in this country, and the same disease is frequently seen in cows that contribute to the milk and beef supply of our people, renders the subject worthy of the most careful investigation by sanitarians.”

One of Stalker’s targets was the state commissioner of dairy, who for the next twenty years—with the support of hostile farmers, shippers, and transport businesses—objected to culling cows with tuberculosis. Stalker persisted and was responsible for the first veterinary practice act in Iowa, establishing the Office of the State Veterinarian and quarantine laws on tuberculosis, anthrax, and glanders. His task had not been easy.

Horse dealers, cow salesmen, and hatchery businesses worked against veterinary science. Veterinarians certified the health status for animals to be sold and were an obstacle to free trade in diseased livestock. In Illinois, powerful agricultural politicians prevented effective disease control—a new Illinois Stallion Registration Act, which formerly required veterinary inspection of stallions for public service, allowed each owner to certify as to the health of his own stallion. There were similar acts regarding self-policing in the poultry industry.

**Teaching Basic Sciences of Anatomy, physiology, and pathology in the new veterinary school in Iowa was assigned to David Sturgis Fairchild, an Ames physician who in 1872 had moved his practice from Minnesota to Iowa.** Fairchild’s notice card in the *Ames Intelligencer* of July 4, 1879, states: “D. S. Fairchild, PHYSICIAN AND SURGEON, Ames, Iowa. Offices in Bradley’s
Brick Block, over Thomas & McLain’s drug store, Office hours from 10 AM to 12 N, from 2 PM to 6 PM; from 7 PM to 8 PM.” During his first years in Ames, Fairchild organized the Story County Medical Society and later became its president. He was also surgeon for the Northwestern and Milwaukee Railroads. Surgeon for a transcontinental railway system was a prestigious position in the late 1800s and gave Fairchild access to hospitals and medical equipment along the rail line that made him well-known in Iowa and provided surgical experiences for the medical reports he wrote. He also had the authority to stop any passenger train to pick up a patient for transport.

The physician of choice for influential people in the county, Fairchild was officially appointed in 1878 to be the college health officer at the Iowa State Agricultural College for an annual salary of $100 with the understanding that he could continue his private practice. He was also hired to teach chemistry. In 1880, Fairchild was appointed professor of histology and pathology at the new veterinary school at Iowa Agricultural College. That same year he was elected professor at the short-lived College of Physicians and Surgeons in Des Moines and for two years, prior to its incorporation into Drake University, served as a president of the medical school.

In those early days, facilities in the veterinary school were spartan. Fairchild acknowledged that the quality of instruction was not up to par since he had little equipment and scarcely any room, writing of Dr. Herbert Osborn, the professor of entomology who lectured to veterinary students: “We have a feeling even to this day, that the professor . . . was somewhat amused at the course of instruction. . . . We had no apparatus, not even a chart. The best we could do was to make some drawings on a blackboard.” But Fairchild’s microscope, a Schrourer with one-quarter and one-sixth lenses, and four Beck student microscopes left over from Bessey’s botany laboratory were invaluable for the study of blood, muscle, and other tissues.

The Iowa Agricultural College was mandated by the legislature to educate people for work in agriculture and engineering. Some legislators inclined to a trade school mentality rather than the scholarly environment that was required for a university. At the time there was a great outcry among politicians and agricultural editors that the college was drifting away from the original intent of the founders and was becoming a scientific and literary institution. President Adonijah Welch was held responsible for this “failure” of the agricultural department.
Fairchild writes of this controversy between faculty and the Iowa State Board of Trustees, which he thought typical of new colleges west of the Mississippi: “The utilitarian idea was predominant. The faculty never lost sight, however, of the cultural value of a college education; the members of the Board of Trustees were generally of a different mind. They estimate the value of an education from the standpoint of its efficiency in earning a living in the workshop or the farm assuming many times a degree of contempt for the cultural side of a medical training.”

Believing agriculture to be purely a manual employment, it was assumed there would be no career for a scientifically trained agriculturist. Fairchild writes that these were bitter years for President Welch, who “for many years . . . looked forward with apprehension to the annual meeting of the Board of Trustees, who had from year to year warned the faculty to keep their satchels packed for sudden removal . . .”

Outbreaks of infectious diseases among students on campus led President Welch to request funds in 1883 for a college student hospital building. The matter was not taken seriously by the Board of Trustees, who favored construction of a veterinary hospital and suggested that “if the college physician would waive all claims to an appropriation for a college hospital and would join the veterinary department in securing a liberal appropriation for a veterinary hospital,” the old veterinary hospital (a barn) would be vacated and remodeled for use for the care of sick students. President Welch declined the proposal. He continued to push for science and culture in the curriculum over manual training. For his transgressions, Welch was fired by the Board of Trustees the next spring.

Despite efforts of the board, there were science faculty insisting on rigor and quality who played pivotal roles by bringing the best science into the veterinary school. For students, the curriculum included courses in botany, entomology, and parasitology—topics covered by professors outside the veterinary faculty. Herbert Osborn, the entomologist at the Iowa Agricultural Experiment Station, known worldwide for parasites of animals, lectured on flies, fleas, and ticks that attacked animals. Charles Edwin Bessey lectured on poisonous plants—toxicity was common in animals grazing timbered pastures. Bessey was the first chair of a Department of Botany, Zoology, and Horticulture in the new Iowa Agricultural College faculty; he was critical in educating the first veterinary students as scientists.

Bessey and Stalker authored a paper on the toxicity of rattlesnake, *Crotalaria sagittalis*, one of the toxic plants of the Missouri River
bottomlands. Poisonous plant toxicity in animals grazing timbered pastures was common in the Midwest and the topic was prominent in the veterinary curriculum. When the tallgrass prairies had been plowed, new invasive plants moved in. Some were toxic and others carried fungi that produced toxins.

**AN URBAN CONTRAST TO RURAL** Iowa Agricultural College, the veterinary school at the University of Pennsylvania had grown from medicine, not agriculture, and its faculty was more connected with the upper social class. The veterinary school was established by Rush Shippen Huidekoper (MD, Penn; VS, Alfort), who belonged to an old and distinguished family in Philadelphia that had long been part of the medical school. Huidekoper practiced medicine for fifteen years, during which he was chief medical officer and lieutenant colonel of the Pennsylvania National Guard and was in charge of medical activities with civil authorities during the Johnstown Flood and the Homestead riots.

An excellent horseman and member of the local Rose Tree Hunt Club, Huidekoper laid the groundwork for establishing the Department of Veterinary Medicine at the University of Pennsylvania. With comfortable means—and no obligation on the university—he went to France at his own expense for two years’ study at Alfort. Due to his degree in medicine he was admitted to advanced standing and in 1882 received the VS degree. Following graduation at Alfort, he spent six months as an itinerant student in the laboratories of Virchow, Koch, Nocard, Ercolani, Chauveau, and Pasteur.

Returning to America in 1883, Huidekoper was appointed dean of the new School of Veterinary Medicine (with no salary), then under construction. He spent the year organizing a three-year curriculum of study. The school opened with a dedicatory service in October 1884; twenty-nine students were admitted for a rigorous curriculum patterned after the French schools. The first class graduated in June of 1887, receiving the VMD degree—from the Latin Veterinariae Medicinae Doctoris. Huidekoper’s social connections to the publisher J. B. Lippincott resulted in a large initial endowment that enabled him to maintain the school and achieve academic success. Huidekoper delivered eight lectures each week, directed the dissection room work, and conducted clinics in mornings, and yet had general administrative direction of the school and hospital.

Between 1884 and 1897, photographer and inventor Eadweard Muybridge worked at the veterinary school producing hundreds of photographs of animals in motion, proving that at one point in the gallop, all four feet were off the
Ground; he also photographed the human body in motion, many of his subjects discretely naked. Muybridge’s work included injured horses to assist in understanding lameness. Huidekoper appeared in some of Muybridge’s photographs on his favorite mare, Pandora.

Huidekoper had never been paid a salary and there were no funds for his successor. The school’s existence was fragile and its annual deficit made survival seem doubtful. The circle of men important in founding the school had dispersed: Rogers moved abroad, philanthropist Lippincott died in 1884, and Provost Pepper’s attention was divided among medicine and other schools. Officials of the University of Pennsylvania were not inclined to support veterinary medicine.

In 1887, Huidekoper petitioned the state legislature for an annual financial support, requesting $100,000 each year; the legislature approved $50,000 but mandated that it go for a building and for free tuition for residents of...
Pennsylvania. William Osler, a faculty member at the medical school, wrote a letter of strong support to the *Journal of Comparative Medicine and Surgery* in 1888; privately, like Huidekoper, Osler felt the school could not continue. Huidekoper’s relationships with politicians became acrimonious and he resigned as dean in 1889. The following year he abruptly quit his faculty position and moved to New York.

In New York City, Huidekoper maintained a veterinary practice; he lectured at the veterinary colleges, served two 2-year terms as president of the American Veterinary Medical Association (1887–1889 and 1890–1892), and kept on as the chief medical officer of the Pennsylvania National Guard. When the Spanish-American War broke out, Huidekoper received a commission in the Medical Corps; he was made chief surgeon of the First Army Corps and went with troops to Puerto Rico. His appointment was criticized by ranking medical officers. Some enterprising war correspondent discovered that Huidekoper had practiced veterinary medicine in New York City and thought that an unpardonable offense for a physician. New York daily newspapers printed nasty headlines: “Huidekoper a Horse-Doctor—Was Known Only as a Vet” and “Huidekoper Doctored Mules and Cats—He Now Kills Uncle Sam’s Heroes.” Huidekoper was not deterred. When the war was over he moved to Washington, spending two years promoting the Army Veterinary Service.

John Marshall, the physician who replaced Huidekoper, was the fourth generation of physicians in his family. Marshall had trained in Germany—in Göttingen, and earned a NatScD degree from Tübingen—and he carried home the German traditions in medicine to the veterinary school. When he retired in 1897, Marshall was replaced by Leonard Pearson, a truly remarkable veterinary educator. South Carolinian M. P. Ravenol, MD, was the first bacteriologist at the University of Pennsylvania; he and Pearson organized the state laboratory in 1896, the first of its kind, an integral part of the veterinary school, and a critical facility for animal disease research—including advances in the knowledge of tuberculosis, glanders, hog cholera, Johne’s disease, and forage poisoning.

The pioneer force for scientific veterinary education in Ohio was Norton Strange Townshend—farmer, agriculturalist, physician, Ohio state senator, and head of the original Department of Agriculture and Botany at the Ohio Agricultural and Mechanical College. The college’s Board of Trustees—Townshend was one of its first members—established a veterinary
science course in the new Department of Zoology and Veterinary Science. The discipline was transferred to the School of Agriculture in 1876 as the Department of Agriculture, Botany, and Veterinary Science, with Townshend and zoology professor Albert H. Tuttle teaching animal diseases.

Townshend had joined with Oberlin College and Cleveland University to establish a college of agriculture in Ohio. He was the director of the Ohio State Board of Agriculture (1858–1869). For the school year of 1869–1870, Norton accepted President Welch’s offer of a professorship at Iowa Agricultural College and Model Farm and left Columbus for Ames. At Iowa Agricultural College, the Board of Trustees hired him as college physician with instructions to charge twenty-five cents per visit, the money accruing to the board. Returning to Ohio after one year, Townshend continued his interests in veterinary medicine and published papers in the American Veterinary Review, including a report on mortality in colts in central Ohio in 1882.

In Ohio, the provisions of the Land Grant Act had been accepted in 1868 and the state received 630,000 acres of land to establish the Ohio Agricultural and Mechanical College on the Neil farm north of Columbus. Ten years later it was renamed The Ohio State University. The curriculum had been skewed to liberal arts, a shift that angered the agricultural community. To heal the rift, a new experiment station, the Ohio Agricultural Experiment Station, was incorporated within the university and built on the farm, which produced food for the college dorms.

A vigorous campaign was mounted by the editor of an agricultural magazine, Farm and Fireside, to separate the Experimental Station from the university—an attempt to convince the university to offer more agriculture and mechanical courses rather than liberal arts. Five years after funds from the Hatch Act of 1887 were received, the Ohio Agricultural Experiment Station moved from Columbus to Wooster in Wayne County, and with it, the research program for livestock diseases. Renamed the Ohio Agricultural Research and Development Center in 1965, it is today Ohio’s livestock disease research center as part of OARDC’s Food Animal Health Research Program.

When Detmers resigned from the Bureau of Animal Industry, he had moved to the Illinois Industrial College in Champaign. He was a wise choice for professor at the Ohio Agricultural and Mechanical College. In Columbus, Detmers developed a curriculum for several years and, given Townshend’s and the university’s support, began teaching veterinary medicine in the fall of 1884;
he added helminthology and bacteriology to the curriculum, one of the earliest presentations of these subjects to veterinary students in the U.S.

The program opened to students for the DVM degree in 1885 and graduated its first class two years later. In 1889 the program became the School of Veterinary Medicine, with Detmers as director, and the first veterinary hospital was built on campus in 1891. Detmers was also appointed veterinarian at the new Ohio Agriculture Experiment Station on campus (until it moved to Wooster in 1892), where he continued his work on hog cholera.

The Ohio State University’s veterinary college continued to grow as one of the seminal institutions of veterinary science in the United States. Detmers kept abreast of what was going on in Europe. Every few years he would spend the summer in Germany visiting the laboratories of Koch and Ehrlich and in September would return with the latest ideas of these scientists. Mark Francis writes that “every time he returned from Europe he brought with him some optical apparatus, usually microscopic lenses and immersion objectives.”

Within a decade, perpetual arguments with administrators at Ohio State led them to reduce Detmers’s salary. A surly Detmers resigned. His protégé, Mark Francis, writes that Detmers was an impulsive man who in anger “said and did things that he regretted later.” After resigning, he would write and live off royalty income. Working with Bausch and Lomb, microscope manufacturers in Rochester, New York, Detmers and an engineer had made improvements in a hypodermic syringe in 1890 that permitted the instrument to be sterilized without damaging the plunger.

Two of Detmers’s first students, the benefactors of his understanding of science and pathology, were David White, the succeeding dean of the veterinary college in Ohio, and Mark Francis, who would become dean of the Texas A&M College of Veterinary Medicine and one of the outstanding veterinarians of the century. Francis played a major role in the control of Texas cattle fever and would become a national leader in the science of veterinary medicine.

Detmers died in Columbus in December 1906. By the end of his career he had become an important national figure, and his services to veterinary science were recognized by the Saddle and Sirloin Club of Chicago, where his portrait hung among noteworthy persons who have contributed to the livestock industry. His legacy included a daughter, Freda, who became a distinguished botanist at the University of Southern California.
IN THE EAST, EZRA CORNHALL, a successful businessman, inventor, and strong proponent of agriculture, donated his farm in the Finger Lakes region of New York to establish a university. Working with legislative colleagues and first president Andrew Dickson White, the New York State Legislature was persuaded to locate the state’s land grant university in Ithaca. Cornell University hired George Caldwell in 1867 as the first professor, to teach agricultural chemistry; professors of botany (Albert Prentice), entomology (Henry Comstock), and veterinary science (James Law) were added, and Cornell University opened in 1868. A professor of agriculture was added in 1874 when Isaac P. Roberts left Iowa State for Ithaca. None of the faculty were agriculturalists and, for farmers, Roberts brought credibility to the Agriculture program at Cornell.

Veterinary professor James Law was a graduate of the Veterinary College of Edinburgh in 1857 and had qualified for licensure with the title of Member of the Royal College of Veterinary Surgeons (MRCVS) in 1863. He had visited the French schools in Alfort and Lyon, been an instructor in John Gamgee’s New Veterinary School in Edinburgh, and moved with it to London, where Gamgee established the short-lived Albert Veterinary College. When it closed, Law began a practice in Belfast, Ireland. Receiving a strong letter of recommendation from Gamgee, Law was hired to teach veterinary science at Cornell.

At Cornell, Law was a champion of higher education for veterinarians and started a school at Cornell that was abandoned for lack of students, most unwilling to undertake the long period of study. Only four men graduated from the veterinary department in the next twenty-seven years (when the New York State Veterinary College at Cornell was established). The first graduate, Myron Kasson in 1871, was awarded the BVS degree (for Bachelor of Veterinary Science) after four years at Cornell. The second graduate, Daniel Salmon, entered Cornell in 1868. Influenced by Law to study veterinary medicine, he was given special arrangements for a four-year course. Part of the deal was that he would attend the veterinary school in Alfort, France, for clinical experience, after which Cornell would grant the DVM degree. A. M. Farrington (in 1879) and Fred L. Kilbourne (in 1885) graduated with the BVS degree. Subsequent degrees for veterinary study at Cornell were the BS.

In June 1888 the loosely associated Departments of Agriculture, Agricultural Chemistry, Veterinary Medicine, Botany, and Entomology at Cornell were combined to form the College of Agriculture with Isaac Roberts named dean.
He retained his chair in the Department of Agriculture and was appointed the director of the Agricultural Experiment Station. Liberty Hyde Bailey, teaching at Michigan Agricultural College, was hired to teach horticulture.

The first class to enter the New York State Veterinary College at Cornell started in 1896, two years after the school had been organized with state support. Dean James Law was at the peak of his national prestige and had hired an impressive faculty that was influenced by the high quality of the faculty in other biological sciences at Cornell. For the next decade they were leaders in the tiny but growing discipline of veterinary medicine.

The two pioneer veterinary educators who had the greatest impact on early American veterinary education. One was an itinerant frontier German immigrant veterinarian, the other a sophisticated early American physician. Both were innovative, irreverent, and ferocious and had earned veterinary degrees from Europe—and both suffered from their insistence that science be the basis of veterinary school curricula. Left: Heinrich Janssen Detmers, who stimulated veterinary science in five rural midwestern states and the Bureau of Animal Industry. Right: Rush Shippen Huidekoper, who founded veterinary education in Pennsylvania and was responsible for establishing the rank and rights of the Army Veterinary Corps; he wears the Army uniform of the Spanish-American War with collar insignia of the U.S. Volunteers and the Maltese Cross of the Medical Corps. (Photograph of Detmers courtesy of The Ohio State University Archives. Photograph of Huidekoper courtesy of the University Archives and Records Center, University of Pennsylvania.)
THE FOUR UNIVERSITY VETERINARY COLLEGES struggled but had two essential elements of survival: access to high science through other disciplines in academia and at least one astonishing godfatherly supporter. At Penn it was the philanthropist publisher J. B. Lippincott; for Ohio it was agriculturalist Norton Townshend and for Iowa, President Adonijah Welch. Cornell would prosper in the academic world because of its extraordinary ideological support from Ezra Cornell and his endowment. Each of these institutions also benefited from a progressive component of rural areas. Ezra Cornell prospered in the Finger Lakes region of New York. Unencumbered by the trade school mandates of many of the rural pioneer legislatures of the Midwest, Cornell would seek and retain astonishing men, not men with brilliant academic pedigrees but those who had proven their worth on the world of the frontier. Neither Cornell’s pioneering agriculturalist Isaac Roberts nor surgeon Walter Williams had earned academic degrees, yet they were brilliant men who rose to the top of the university world by their hard work and their extraordinary knowledge, skills, and abilities.

13. PLAGUES AND THE BUREAU OF ANIMAL INDUSTRY

In 1880 there was widespread criticism of the U.S. Veterinary Medical Association from the pioneers in the field—from Law at Cornell, Huidekoper at Penn, and even from Liautard, director of the New York College of Veterinary Surgeons—that the organization was not effective in bringing about the federal regulations that were needed to control infectious diseases of livestock. At the annual meeting, state veterinarians from Nebraska, Minnesota, and the Dakotas complained. The territorial veterinarian of Wyoming was dismayed at the “apathy displayed by the association at the last annual meeting, as well as the lack of interest of veterinarians, in regard to ... the necessity of wholesome sanitary laws and their enforcement.”

It had taken over a decade since agriculturalists in midwestern states proposed a federal agency to deal with the destructive plagues that were destroying the livestock industry, but in 1881 the U.S. Congress created a new Cattle Commission, placing it in the Department of Treasury. Historically, Treasury’s Patent Office had evolved as the source of governmental information on agriculture; a report