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A SELF-TAUGHT TEXAS WILDCATTER: PATTILLO HIGGINS AND THE HOCKLEY OIL FIELD¹

by *Ronald H. Limbaugh*

Lucas No. 1, the nation's first spectacular oil gusher, blew in on January 10, 1901, on a salt dome known as "Spindletop" located just south of Beaumont, Texas. Named for its developer, Captain Anthony Francis Lucas, the phenomenal well shot oil 175 feet above the derrick and ran unchecked for ten days. For seven months it produced an average 40,000 barrels per day and touched off a boom that turned the nation's oil industry on its head.

Less well known is the discoverer of Spindletop, Pattillo Higgins, a self-taught geologist, wildcatter, consultant, promoter, and so-called "prophet" of the Texas oil industry.² He was instrumental in bringing Spindletop's oil potential to public attention in the 1890s, yet his name does not appear on the tall obelisk that was erected on the fiftieth anniversary of the Spindletop discovery well.

Higgins first conceived and promoted a Southwestern counterpart to the Standard Oil monopoly that would have integrated production, refining, distribution, and marketing, yet he lacked the resources, the corporate connections, and the good luck needed to make his entrepreneurial dream a reality. For a quarter of a century he was a phenomenal oil finder, locating nearly fifty good prospects in Texas and Louisiana that eventually came into production.³ Yet his role at Spindletop is barely mentioned in corporate histories, and his subsequent career largely has been ignored by geologists and historians alike.⁴ Only in the last few decades has he begun to receive some scholarly attention.⁵

For four decades after the Pennsylvania discovery at Titusville in 1859, oil was a commodity with limited production and utility used primarily for lubrication, illumination, and patent-medicine. Under the Standard Oil Trust and its near-monopoly of distribution, both market demand and price held steady.⁶ All that changed with Spindletop.

The Beaumont monument gives credit to the Spindletop oil pioneers for helping to launch a second transportation revolution by flooding the industrialized world with cheap oil and gasoline. But there is a darker side the inscription does not mention. The Lucas well ushered in a chaotic era of price instability, frenzied speculation, extensive exploration, erratic production, gross waste and inefficiency, aggressive competition, labor exploitation, social turbulence, and explosive urban-industrial growth – all familiar topics to western historians. Indeed, mining booms, oil booms, land rushes, and other popular excitements between the Civil War and the 1930s are part of the same grand theme, the collective heritage of American Trans-Mississippi western development in an unregulated economic era.⁷

As extractive industries, hardrock gold mining and oil drilling are closely comparable. Both required technical knowledge and experience to be

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successful. Technical knowhow was scarce in the formative years of both industries, but early miners and drillers gained enough practical experience through trial-and-error methods to achieve some measure of success. As the pioneer eras for both industries gave way to modern industrial development. The demand increased for more sophisticated training. The result was that fewer seat-of-the-pants pioneers could be found in either industry after the early booms ended.

The early career of Patillo Higgins illustrates both the promise and pitfalls of oil speculation in the pioneer era. Born in the 1860s, Higgins, like many early mining engineers, had a practical rather than a formal education. His schooling ended in the lower grades, and most of his formative skills as carpenter, mechanic, and draftsman he learned from his father, a machinist whose ancestors had immigrated from either England or Ireland.⁹

Higgins' entry into the petroleum industry was both slow and circuitous. Big and tough for his age until he lost his left arm in a gunfight, he worked respectively as millwright, mechanic, metalsmith, woodcutter, and river crew boss for a logging company, then real estate broker. While inspecting rural property he discovered a red clay deposit near Beaumont and by 1886 had started a brickyard. That first turned his attention toward petroleum, which eastern yards were just beginning to use as fuel for brick kilns.⁹

From the perspective of the 1990s it is not hard to understand why Higgins became an apostle of Texas oil despite his lack of schooling in geology or business. He was ambitious, aggressive, strong-willed and inner-directed, willing to take great risks for the sake of his convictions. He also was literally perched on top of a salt dome that marked the location of a prolific oil field. A trip through eastern oil fields, followed by intensive study and comparison of gas seeps, sour water, and other surface indicators, convinced him by 1892 that oil was present in large quantities on what he thought was an anticline or uplift of cap rock at a depth of about 1,000 feet under the mound near Beaumont. He held these views regardless of the conventional wisdom of inexperienced contemporary geologists who found no rocky outcrops indicating subsurface oil-bearing strata along the Gulf Coast and therefore who rejected the prospect of finding oil there in commercial quantities.¹⁰ He was also stubborn, refusing to give up after repeated failures by drilling crews hired by the Gladys City Oil, Gas and Manufacturing Company, the firm Higgins was instrumental in organizing with local capital to bring in the first well.¹¹ In 1895 a dispute with his board of directors over field operations led to his resignation as manager. He sold his interest in the Gladys City Company but continued to promote the Spindletop field and advertised in eastern papers for technical assistance to bring in a well.¹² He received only one response, but that set the stage for Captain Lucas and the first great gusher.

The boom at Spindletop restored Higgins' reputation and made him a millionaire. Before the first gusher the early drilling failures had undermined his credibility and had led one professional geologist to dismiss haughtily "the idle dreams or insane notions of irresponsible parties in the vain outlook for either oil or useful gas."¹³ Higgins had been squeezed out of a direct financial stake in the Lucas discovery well, but he held thirty-three acres on the mound

and with it organized the Higgins Oil and Fuel Company. By the end of 1901 his firm was one of the Big Three at Spindletop, the other two predecessors of Gulf Oil and Texaco.¹⁴

Had Higgins conformed to corporate culture he might have risen in executive ranks and joined the industrial hierarchy whose deeds are etched in the Spindletop monument and enshrined in the boardroom photographs of the nation's petroleum giants. But he was an aberration, a maverick who wanted to control both management and field operations. When the Houston Oil Company bought up a majority of stock in his firm and took over its board of directors, Pattillo sold his interests "for a reported three million dollars" and set out on his own as a Texas wildcatter.¹⁵

In his classic account of the Southwest petroleum industry, Carl Wister defined a wildcatter as an independent operator who generally worked in unproven ground, took great risks, explored remote areas, often made and lost several fortunes, and who was motivated more by the "thrill of discovery" than by financial gain.¹⁶ Wister may have romanticized the definition, but it comes close to describing the career of Pattillo Higgins.

After Spindletop, in the words of his biographer, Higgins was "the prototype of the wildcatter: a here-today, gone-tomorrow, boom-bust, never-give-up speculator and promoter..."¹⁷ Organizing the Higgins Standard Oil Company in November 1901, he prepared a lengthy promotional brochure that, among other things, proclaimed him the discoverer and prime mover at Spindletop, or "Higgins Oil Field No. 1," as he chose to label it. The pamphlet described plans for an integrated global oil empire based at Beaumont and founded on nearly 200,000 acres of acquired property and leases in Texas and Louisiana. It also chastised professional geologists who had rejected his anticline theory for Spindletop. Some of them, he said, "ought to be out on a farm making rails and following behind long-earned mules."¹⁸

It is my understanding and belief that geologists have done nothing in the way of developing minerals, and when others go forth and develop them, they come forward and say it is a peculiar place. They are afraid to venture out into the world and point out where valuable mineral deposits will be found. They work and plan on the safe side only. Therefore, through their ignorance they think they have escaped the condemnation of the scientific world.¹⁹

It was clear that Higgins considered himself a scientist, if not a geologist *per se*. Intensive study of available literature, combined with extensive field investigation and applied research, had equipped him with all the essential skills of a professional oil locator. He was remarkably adept at finding oil on the basis of surface indicators, using techniques that after World War I were supplanted by seismographs, magnetometers, and other geophysical tools for locating subsurface formations. Although he kept abreast of oil developments and remained an avid reader throughout his career, the methods he used changed little over the years. He continued to rely on surface evidence as the primary test for oil.²⁰

In 1902, supremely self-confident, Higgins set out to build an independent oil empire on the Texas Gulf Coast, the ultimate dream of a

maverick oilman determined to fight the corporate giants. For nearly two decades following Spindletop he was the archtypical wildcatter. Relying on his own experience and on leads from eager landowners, he explored dozens of prospective sites. When field tests proved promising he tied up the mineral rights with funds acquired from his Spindletop land sale. Then he organized an independent investment company to finance exploration. One good gusher would be all that was needed, he figured, to attract thousands of small investors and launch a genuine oil boom.

His experience at Hockley, one of many salt domes Higgins prospected along the Gulf Coast, will help illustrate the uncertainties of this phase of his life as an oilman. Hockley is a lesson in frustration and failure, a story that might never have been told fully had it not been for the serendipitous intervention of a California junk dealer who early in the 1970s rescued a pickup load of papers from the San Francisco City Dump. The papers had been part of the "trash" cleaned out of the Mills Building in the heart of the city's financial district when it was undergoing remodeling. I was fortunate to stumble across the dealer one Sunday morning at a regional flea market. Attracted to the piles of old ledgers and correspondence he was offering for sale, I purchased one cardboard box of likely-looking items. What piqued my interest were some incidental records of several Sierra mining companies. Buried in the carton was an old document case containing nearly fifty holograph letters from Pattillo Higgins to Daniel M. Kent, Secretary of the Higgins' World's Oil Company, the firm organized to raise development capital for the Hockley field. I must confess I knew little about the Texas oil business then and nothing about Higgins. The carton held other, more intriguing "secrets" at the time.²¹

It took years to work back down to that old document case at the bottom of the box. Indeed, I had nearly forgotten about my cache of papers, but my interest was rekindled by the publication of the first full biography of Higgins in 1989. This was the first substantive source of published information about Higgins' career after 1901, but it provided few details on the Hockley field and nothing about the California financial connection which made the Hockley exploration possible.

In the first decade after Spindletop Higgins spent most of his private capital in a futile quest for oil up and down the Gulf Coast. Often his money went into oil leases acquired to thwart competitors but never developed. He leased thousands of acres around Sabine Pass in 1901-1902, but lost them eventually without drilling a single hole.²²

In the summer of 1902 Higgins plunged heavily at Barber's Hill, a salt dome located twenty-three miles east of Houston. Identifying it as an anticline, Higgins predicted that it would be "... twenty miles larger than the Beaumont [i.e. Spindletop]" and that gushers there would surpass any on record.²³ The year before he had organized Higgins Standard Oil Company to raise development capital for such projects, but at Barber's Hill he spent much of his own money drilling five shallow dry holes over the next three years. Eventually he pulled his rigs but kept up most of his leases. His optimism paid off in 1918 when deep drilling by another firm finally found oil and helped

rescue him financially.²⁴

But it was a long wait, and the intervening years were filled with frustration and failure. That was the story at Humble, which Higgins explored in 1904 but withdrew, less than a year before another wildcatter opened the first gusher.²⁵

Frustration and failure also dogged him at Goose Creek, which he explored as early as 1907. Lack of development capital, legal disputes, stiff competition, and bad luck all took their toll on his resources and resolve. He eventually gave up and sold all his interests, just a few months before the first big gusher started a boom.²⁶ For twenty years Goose Creek's annual production topped a million barrels of crude.²⁷

Hockley was not much different, only we have much more detailed information from the Higgins letters that arrived regularly at the San Francisco offices of Higgins World's Oil Co.

From the 1850s to World War II San Francisco remained the financial capital of California and the Far West. Its stock exchange, organized in 1862 during the bonanza years of the Comstock Lode, was the second oldest in the country and a major source of development capital for mining, milling, shipping, construction, and other formative industries throughout the West. Much of the wealth supporting this imperial outreach came from Nevada gold and silver mines. The Comstock bonanza ended by the late 1870s and sent mining stocks in a tailspin for nearly a quarter of a century. But the opening of Tonopah and Goldfield bonanzas after 1903 revived San Francisco's mining investors and triggered a four-year boom that reached its peak just as Pattillo Higgins opened the Hockley field.²⁸

Precisely when Higgins made the San Francisco connection is not clear from the available records, but doubtless he was attracted by California oil interests. Since the 1890s the California oil industry had been growing by leaps and bounds. Oil developers looked to San Francisco for financial help just as had regional locators of gold and silver mines. An Oil Exchange grew up alongside two mining exchanges and the older Stock and Bond Exchange on Pine Street to accommodate the increased volume. Dozens of brokers and salesmen occupied this section of the City's financial district. One of the most experienced was Daniel M. Kent, who had set up business on Montgomery Street late in the 1870s as a mining secretary and general collector. By the early 1880s he had moved to an office at 330 Pine Street, nearly adjacent to the exchanges. He was still there when the Tonopah rush revived mining in 1903, and the district soon filled with brokers and salesmen peddling mining stock. Kent had at least nine separate gold mining companies under his wing at the time Higgins opened the Hockley field.

In the 300 block of Pine street, where Kent had his office, there were thirty-five mining stock brokers listed in the directory for 1905. One of the most important was Joseph B. Toplitz, president of the Oil Exchange and member of the older Stock and Exchange Board. He shared an office with Kent and may have been Kent's employer, although the nature of the relationship will probably remain unclear because all the business records

before 1906 were destroyed. At any rate, the proximity of mining and oil finance was personified by D.M. Kent and his associates who provided financial connections and capital for promoters seeking financial backing for a variety of ventures in both industries.²⁹

On April 20, 1906, just two days after the great earthquake and fire laid waste to four square miles of downtown San Francisco, including all the exchanges and the brokerages in the financial district, Texas papers published the first news of Higgins' exploratory work at Hockley. He had arrived there early in 1906 at the invitation of Tom Jordan, son-in-law of the land owner, a cattleman named John Warren. Scattered hardwoods mixed with tall grass covered a gentle rise that distinguished the site, located in a bee-line 108 miles from Spindletop, with Humble directly in between. A decade earlier, long before the Texas oil excitement, John Warren had hired a driller to dig a water well but the drill crew had given up after hitting hard rock at twenty feet. Higgins inspected the area and found gas seeps, salt marshes, sour water, and paraffin dirt – welcome signs to a “creekologist,” as surface geologists were then often labeled.³⁰ Figuring the mound was an anticline with oil strata at less than 1,000 feet, he leased 8,000 acres on the spot and in April brought in a crew from Barber's Hill to begin a test well.³¹

With his own finances severely drained, Higgins looked to West Coast investors to finance the Hockley exploration. Early in 1906 articles of incorporation were drawn up forming the Higgins' World's Oil Company, capitalized at \$6 million with its headquarters in San Francisco.³² Most of the initial assets came from Higgins, including a half-interest in his Hockley lease, another half-interest in 150 acres at Barber's Hill, and a half-interest in an exploratory well his drilling crew was still working on there.³³

Higgins' past association with Spindletop and his glowing initial reports on the new field stirred enough interest in San Francisco that his fledgling company had little difficulty at first raising funds. By the end of April, with the first well at only eighty feet, Higgins had received nearly \$8,000 from D.M. Kent, the company secretary, much of it from the sale of heavily discounted stock to members of the board of directors.³⁴

But that was not nearly enough at Hockley, despite Higgins' rosy predictions. He thought Hockley and Spindletop were both anticlines that trapped oil under caprock within a thousand feet of the surface. The rocky strata his drilling crew struck in well #1, first at twelve feet and then again around eighty feet seemed at first to confirm his theory even though his light rotary rig nearly ground to a halt.

Higgins was anxious to tap the deeper strata and bring in a paying well while backers were still enthusiastic. Early in May he hired another driller to begin a second well a few hundred feet from the first. By the middle of June it was down twice as far as #1, but hard rock and water at 500 feet slowed the work appreciably. Still he remained positive, at least to his backers. “I am fighting the rock hard and believe that I will soon get through it and bring in a big gusher,” he wrote early in August.³⁵

Rock and water were not his only troubles that summer. The tough

ground ate up money faster than the Higgins' company could raise it through stock sales. At the beginning of the operation the board had hired a field representative, F.D. Wolfrom, and had sent him East to raise funds. But his salary and expenses consumed much of the revenue from stock sales. Other sales representatives, working on commission, traveled to New York and Florida with a suitcase full of stock certificates but found few buyers. Higgins was inclined to find fault with their sales pitches, although they blamed the lack of success on barren results from the field.³⁶ One big gusher would be all that was needed.

Higgins stubbornly pressed on, but by November 1906 he had run out of funds and nearly out of credit. All summer his drill crews had worked through strata intermittently hard and soft, occasionally producing a "showing" of oil or gas but nothing in commercial quantities. Higgins continued to assure his backers that a gusher was just a matter of a few more feet, but his letters showed the strain. On November 19, with the first well at 730 feet, the second at 869 ft., and contractor costs eating up his resources, he wrote Kent that he had decided to shut down both wells and shift #2 rig to a third site two miles to the south where he believed he could find oil in thirty days. "I had done so," he said. "I think we would have had oil long ago. We have done enough work on wells No. 1 & 2 to have drilled a dozen wells." But the promoter's instinct still prevailed: "I do not feel discouraged in the least," he wrote. "I feel sure that we will develop a big oil field at Hockley and Barbers Hill."³⁷

Despite the confidence, his drillers had no better luck with Well #3 than with the earlier tries. Still thinking he was over an anticline, Higgins at first tried to tap into shallow oil strata at 200-400 feet, where he had found some prospects in earlier wells. Failing in that effort, his crew drilled deeper but hit hard rock at 300 feet.³⁸ The light rotary rig ground away a few feet a day, aided by the use of adamantine or steel shavings dropped down the drill pipe to add abrasive – a pragmatic innovation in drilling technology.³⁹ It took nearly four months to get through the hard strata, but core samples below it showed nothing of commercial interest.

In the meantime Higgins backers lost patience. One investor with hardrock mining experience wondered why the third well was started when the other two were still unfinished. It seemed to him that Well #3 was like "digging too many tunnels before striking vein."⁴⁰ Others pressured the company to investigate the field management. Although the board reaffirmed its confidence in Higgins as field manager, stock sales fell off drastically, even at heavy discounts, as the months wore on without positive news.

By February 1907, Higgins was desperate. Drillers threatened to sue for back pay; long-suffering creditors made ominous noises; even his leases at Hockley and Barber's Hill were in jeopardy without cash to renew them. Pressed to the wall, Higgins resorted to financial manipulation. He paid the lease fee at Barber's Hill with stock in the Hockley enterprise.⁴¹ When one of his drillers quit and brought suit for \$349 in back pay, Higgins told Kent he would let the suit continue "until about day of the trial and then pay him, which will be about three months." Despite the accumulating worries Higgins did not lose confidence. "Everything looks bright," he concluded, "but we

nced a little money badly.”⁴²

In April, with his company living on borrowed time, Higgins changed strategy. He abandoned Well #3 at 550 feet and shifted the rig to a new site 200 feet away from #2, hoping to reach shallow strata quickly and bring in a low-volume producer that would generate some positive cash flow. On May 15 the crew, short-staffed by defections, spudded in Well #4. In three days it was down eighty-two feet in hard shale. Gas and water boiled up out of the hole when the crew raised the bit, exciting Higgins with “indications [that] look extra fine for a good paying well.”⁴³ He hoped to finish the well within a week, but the next 120 feet was a steady grind in hard rock and shale. The drilling continued into June and through torrential rain which washed over the creek banks a half mile from the derrick and flooded the field. On one trip Higgins drove his wagon through a sea of water a foot deep, watching gas seeps over “hundreds of acres ... boiling up like a pot of boiling water.”⁴⁴

Still the drilling continued. At 263 feet “a fine showing of oil came up,” but not in paying quantities. When more oil traces showed between 320 and 400 ft., Higgins pulled the drill and reset with strainer to test the strata, but the results were disappointing. The next 100 feet tantalized him with oil trace mixed with rock and water, but the drilling was tough and took a month to penetrate. He kept on, thinking he was finally punching through cap rock, but then disaster struck: he hit groundwater under high pressure and had to plug the well at 400 feet. On July 27 he wrote the board of directors the bad news; he had abandoned Well #4 and was pulling all the pipe.⁴⁵ That same day, taking umbrage from a letter prepared after a board meeting that called his field operations into question, he retorted: “I am not a bull dog and do not work on bull dog principles... I do not drill wells in a guess like way... I am willing to take advice from the board or any one else but it must be advice of merit.”⁴⁶

Higgins refused to give up despite the four barren holes, but he was financially drained. He had exhausted all sources of cash and credit in fifteen months of futile exploration. Only the indulgences of the field owner’s son, John Warren Jr., who lent the drillers material and machinery, boarded the men and used his own teams to haul company freight, kept the Higgins company solvent during the last ten months. When the board of directors questioned Higgins’ judgment in donating company stock in lieu of cash for these services, Higgins blew up:

...I know that I understand drilling more thoroughly than any other person in this section of the country and I am the largest stockholder in the company and I have used every advantage for success of the company... and I have made myself personally responsible for debts of the company in order to make it a success, and after all this the Board is ready to listen some unreliable source and accuse me of mismanagement. I think it an outrage and shows a liking [lacking] in common sense on the part of the Board.”

He held on a few more weeks, trying desperately to recapitalize, but by late August he saw the handwriting on the wall. “...[I]f I fail within the next thirty days I am going to give up and quit,” he admitted; “I cannot go much further by myself.”⁴⁸ But the old promoter spirit died hard. One of the last extant letters he wrote Kent ended with a familiar line: as soon as we raise the

money I believe "we will get a big gusher soon."⁴⁹

Pattillo Higgins never found that big gusher at Hockley, and neither did anyone else. Another Texas oilman, John Little, later reminisced about Higgins and others who wildcatted at Hockley: "[They]... never got any oil – only salt was all they got," he said.⁵⁰ Unlike the unusual salt dome at Spindletop, which had productive oil strata under its cap as well as along its flanks. Hockley was barren of oil in commercial quantities. Even its flanks proved unproductive. Higgins had thought both were anticlines and had drilled on the top of both domes. Later he revised his thinking to incorporate salt dome theory, and even developed from core samples a mushroom-shaped model with an overhang that more accurately delineated the subsurface structure and that earned him the respect of professional geologists. But as late as 1917 he was still writing that Barber's Hill, the salt dome that eventually paid a fortune to Higgins, was an "anticlinal... the most wonderful and most simple geological structure that I have ever studied..."⁵¹

Higgins as wildcatter is an example of the difficulties faced by independents bucking the tide of corporate merger and control. While other small companies with good leases usually sold out to corporate giants, Higgins resisted. Always short of adequate development capital, he was forced to rely on old equipment, skeleton crews, and obsolete rigs. As a result he was unable to drill quickly or to penetrate deeper levels. Frequent breakdowns hampered drilling; money shortages stalled supplies and payrolls, slowing drill progress and crippling development. His deepest wells penetrated little more than shallow strata. Lacking equipment and money to sustain an effective drilling program, he resorted to spot wells in unsystematic guesswork efforts and had to shut down before reaching commercial strata. His efforts as wildcatter illustrate the shortcomings of the little man trying to protect his investments by refusing to give in to corporate takeover and development.

In contrast, as an oil finder Higgins was phenomenal. He carried on his search for a quarter century after the pioneer era ended and professional geologists had emerged as the leading oil locators. That the pros learned to respect his skills is a testament to Higgins' natural abilities. His ideas were good, but he could not develop them as a wildcatter. Luck might have helped, but his undercapitalized operations needed better financing and systematic exploration at depth. Only a few more hundred feet of depth at both Barber's Hill and Goose Creek would have produced gushers which in turn would have helped offset the bad luck that followed him for nearly two decades after Spindletop.

NOTES

¹I am grateful to the Rockwell Hunt Fund of the University of the Pacific for subsidizing travel to research libraries in preparation of this manuscript. I also am indebted to Mrs. Mary Louise Brown of Phoenix, Arizona, for her generous contribution of books on the Texas oil industry to the Holt-Atherton Library at the University of the Pacific; and to Mr. Robert W. McDaniel, who read the manuscript, offered valuable suggestions, and made available copies of newspaper clippings by and about Pattillo Higgins.

²Higgins obituary, *Houston Post*, June 6, 1955.

³Robert W. McDaniel, *Pattillo Higgins and the Search for Texas Oil* (College Station, 1989), Appendix B, pp. 161-163. Higgins also claimed to have located more than a hundred additional prospects that remain unproven. *Pattillo Higgins*, Appendix A, pp. 157-160.

“For example, in 1945 the American Petroleum Institute’s pamphlet on Spindletop mentioned Higgins as among a “handful of men” responsible for opening the Spindletop field but gave most of the credit to Lucas. *Spindletop – A Texas Titan; the Story of the Lucas Well...* (New York, 1945), p. 1.

Higgins rated a sentence or two in early U.S. Geological Survey studies, especially in Fenneman, *Oil Fields of the Texas-Louisiana Coastal Plain* (Bulletin 260; Washington, G.P.O., 1906), but was not mentioned in a recent geological reminiscence published by the profession (Blakey, *Oil On Their Shoes*, 1985).

R. Cokc Rister’s classic survey *Oil: Titan of the Southwest*, (Norman, 1949), mentions Higgins in the context of a brief essay on Spindletop and its significance. Walter Rundell’s pictorial history of the early oil business in Texas expands the Higgins’ treatment to several scattered sentences, but miscredits Higgins with developing a “salt dome theory.” *Early Texas Oil: a Photographic History, 1866-1936* (College Station, 1977), pp. 21, 35, 48, 65.

⁴Robert R. Wheeler credited a postmortem “twinge of conscience for crediting Lucas with their oil revenues instead of Higgins” for the Southwest regional rise of interest in Higgins after his death in 1955. Wheeler, “Spindletop Saga,” *Texas Gulf Historical and Biographical Record*, 12 (November 1976), pp. 25-39. The only extensive works on Higgins are Clark & Halbouty, *Spindletop* (1952); and McDaniel, *Pattillo Higgins and the Search for Texas Oil*.

⁵Rister, *Oil, Titan of the Southwest*, pp. 181-182.

“For examples of comparative analysis, although with sharply different conclusions, see Rister, *Oil, Titan of the Southwest*, pp. 60-67, 144-157, 278; and Roger M. and Diana D. Olien, *Oil Booms: Social Change in Five Texas Towns* (Lincoln, 1982), pp. 2-9, 22-31, 43, 109, 127-132, 167-168.

⁶McDaniel, *Pattillo Higgins*, pp. 9-12; Pattillo Higgins interview, July 1952, Oral History of the Texas Oil Industry, Box 3K19, Tape 19, Barker Library, UT Austin, hereinafter cited as OHTOI.

⁷McDaniel, *Pattillo Higgins*, pp. 12-30.

⁸Mody Boatright, *Folklore of the Oil Industry* (Dallas, 1963), pp. 83-85; Henrietta M. Larson and Kenneth W. Porter, *History of Humble Oil and Refining Company: a Study in Industrial Growth* (New York, 1959), pp. 15-16.

⁹McDaniel, *Pattillo Higgins*, pp. 33-42.

¹⁰*Pattillo Higgins*, pp. 50-55.

¹¹*Pattillo Higgins*, pp. 46-47.

¹²*Pattillo Higgins*, pp. 68-69; Clark & Halbouty, *Spindletop*, pp. 38-40.

¹³McDaniel, *Pattillo Higgins*, p. 76.

¹⁴Rister, *Oil, Titan of the Southwest*, pp. 185.

¹⁵McDaniel, *Pattillo Higgins*, pp. 83.

¹⁶Clark & Halbouty, *Spindletop*, pp. 123-125. Higgins didn’t anticipate salt dome theory which was Lucas’ primary contribution to understanding Spindletop. *Spindletop*, pp. 279-280; McDaniel, *Pattillo Higgins*, p. 148.

¹⁷Pattillo Higgins, *The Truest Story of the Beaumont Oil Field* (1901), as quoted in *The Beaumont Enterprise*, October 5, 1941, located in OHTOI, Box 3K11.

¹⁸McDaniel, *Pattillo Higgins*, pp. 147-152.

¹⁹Another cache of financial records in this remarkable box formed the basis for my article on “Secret Ravine: the Rise and Fall of a Gold Mine,” *Pacific Historian* 15 (Winter, 1971), pp. 53-70.

²⁰McDaniel, *Pattillo Higgins*, pp. 84-85.

²¹Clip from unidentified paper, ca. June 1902, Lucas Scrapbook, OHTOI, Box 3K16; *Oil Investor’s Journal*, 1 (August 15, 1902), pp. 3-4.

²⁴McDaniel, *Pattillo Higgins*, p. 133; Rister, *Oil, Titan of the Southwest*, pp. 107, 228.

²⁵McDaniel, *Pattillo Higgins*, pp. 99-100.

²⁶McDaniel, *Pattillo Higgins*, pp. 108-212.

²⁷Walter P. Webb, ed., *The Handbook of Texas*, I (2 vols; Austin, 1952), 27. p. 710.

²⁸San Francisco Chamber of Commerce, *San Francisco: the Financial, Commercial, and Industrial metropolis of the Pacific Coast* (San Francisco, 1915), p. 93; Joseph L. King, *History of the San Francisco Stock and Exchange Board* (San Francisco, 1915), pp. 307-308.

²⁹*San Francisco City Directories*, 1884, 1904, 1905, 1907, 1908; *San Francisco Call*, August 12, 1906, p. 48 c. 3.

³⁰Boatright, *Folklore of the Oil Industry*, pp. 3-5.

³¹*Houston Post*, April 20, 1906, p. 14, c. 5; McDaniel, *Pattillo Higgins*, pp. 100.

³²When Higgins first made connections with what was still the financial capital of the West remains something of a mystery, since few corporate records in San Francisco survived the 1906 earthquake and fire. His personal papers may shed light on his West Coast financial affairs, but they are still in family hands and not open to researchers. The earliest letters in my collection date from August 1906, at least four months after the operation began.

³³ALS, Pattillo Higgins to Daniel M. Kent, May 14, 1906, Higgins Papers, author's collection, hereafter cited as HP RHL.

³⁴ALS, HP to DMK, 30 April 1906, HP RHL.

³⁵PH to DMK, 1 Aug 1906, HP RHL.

³⁶ALS, PH to DMK, May 3, 1907, HP RHL.

³⁷ALS, PH to DMK, September 12, November 19, 1906, HP RHL.

³⁸ALS, PH to DMK, January 16, 1907, HP RHL.

³⁹Pattillo Higgins interview, July 25, 1952, in OHTOI, Box 3K19, tape 21, pp. 21-22; McDaniel, *Pattillo Higgins*, pp. 101-104.

⁴⁰TLS, W.A. Boscow to DMK, January 15, 1907, HP RHL.

⁴¹TLS, PH to DMK, March 29, 1907, HP RHL.

⁴²ALS, PH to DMK, March 30, 1907, HP RHL.

⁴³ALS, PH to DMK, May 20, 1907, HP RHL.

⁴⁴ALS, PH to DMK, June 3, 1907, HP RHL.

⁴⁵TLS, PH to DMK, July 27, 1907, HP RHL.

⁴⁶TLS, PH to DMK, July 27, 1907, HP RHL.

⁴⁷TLS, PH to DMK, August 17, 1907, HP RHL.

⁴⁸TLS, PH to DMK, August 17, 1907, HP RHL.

⁴⁹ALS, PH to DMK, August 22, 1907, HP RHL.

⁵⁰John Little interview, Belton, Texas, August 7, 1952, in OHTOI, Box 3K20, Tape 45.

⁵¹Pattillo Higgins, "Report on Barbers Hill Oil Field," 1917, in *Letters of Recommendation of Pattillo Higgins and Newspaper Clippings of date February 2nd, 1907 to January 24th, 1917...* [n.d.], 7, (copy in possession of Robert McDaniel, Scaly, Texas).