

# The 1915 Hurricane

# exas empest

By Jim Saye

Just as the world was becoming comfortable with the 21st century, right on schedule [well, close enough] the oft-remarked, always dreaded, “Hundred-Year Storm” swirled across the Gulf of Mexico, tossing giant offshore oilwell platforms hither and yon, and crashed into the coast in calamitous proximity to New Orleans. Hurricane Katrina produced incredible devastation in Louisiana, Mississippi and adjacent states to the east and north. Still, there was more to come . . .

Less than a month after the August 29, 2005 Katrina disaster, Hurricane Rita raced across the warm waters of the Gulf, targeting southeast Texas. This Category 4 hurricane created panic in the Greater Houston area, with terrified residents fleeing willy-nilly in a mass

exodus of historic proportions. Then Rita wobbled slightly east to make landfall in Louisiana, bordering Sabine Pass. Screaming through the tall pine forests of East Texas and Louisiana, Rita wreaked extensive damage in areas untouched by hurricanes for decades. Thus the year 2005 set records for U.S. nation-wide storm losses. But reflect . . .

At the dawn of the 20<sup>th</sup> century, on September 8, 1900, a massive hurricane struck Galveston. Even to this day the 1900 hurricane ranks as the most deadly natural disaster in U. S. history. With a storm surge of 15 feet or more and winds estimated at up to 120 mph, this Category 4 hurricane caused the death of around 6,000 residents of Galveston plus another 2,000 or so Texans on the mainland and on Bolivar Peninsula.<sup>1</sup> If you mention hurricanes in south Texas, the response will almost always be relative to the 1900 Galveston storm. Nevertheless . . .

The hurricane that hit the Galveston area in 1915 is widely considered to have been more powerful than the catastrophic 1900 storm. In a number of ways, the 1915 Galveston hurricane was the sequel to the 1900 hurricane. The challenge that was hurled so

brutally to the citizens of Galveston in those horror-filled days of September 1900 returned to be confronted on a frightful Monday in August 1915.

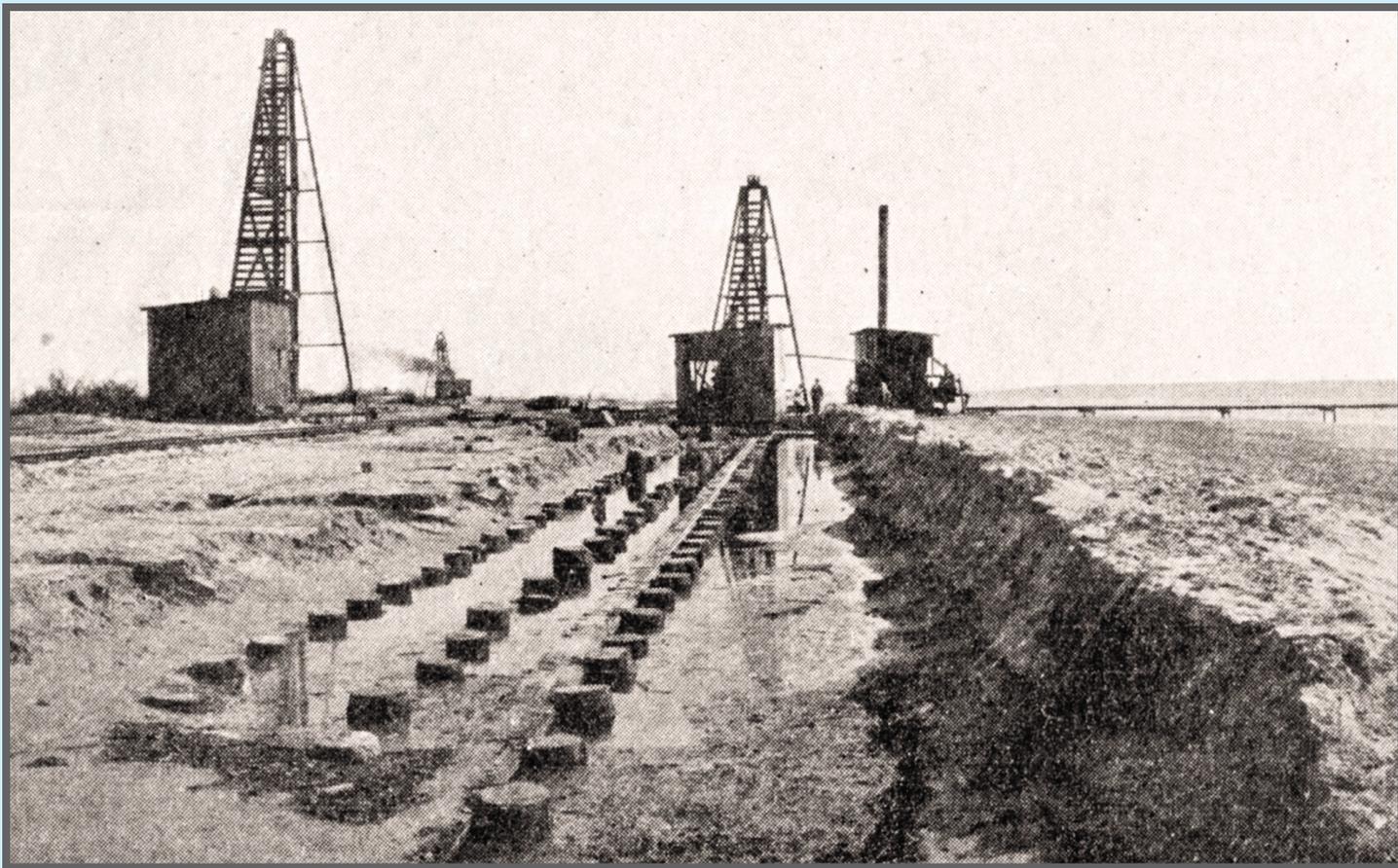
## Texas Hurricanes

In dark counterpoint to the infinite blessings bestowed upon Texas by a generous Mother Nature, this state is vulnerable to a number of devastating natural forces. Floods, tornadoes, hailstorms, sandstorms, snowstorms, blizzards, droughts, pestilence and hurricanes. From a time far beyond the earliest human inhabitants, violent hurricanes have lashed the defenseless Gulf coastline.

Some hurricanes of which there are surviving accounts include the hurricane of September 4, 1766. That storm destroyed a mission on the shore of Galveston Bay. During the 1800s, Galveston was hit by at least eleven major hurricanes.

Jean Lafitte and his pirate crews built a flourishing community on Galveston Island in 1817-1818. Then a hurricane struck on September 12, 1818. All six of Lafitte’s ships were either sunk or severely damaged.

DURING THE KOREAN WAR, JIM SAYE (LTJG, USNR) SERVED TWO YEARS AT SEA. THE CAPTAIN NOTED IN HIS SERVICE RECORD, “SAYE HAS A FLARE (SIC) FOR WRITING.” THIS “FLARE” CARRIED HIM THROUGH A FOUR-DECADE CAREER IN ADVERTISING, AND NOW SPURS HIS PASSION FOR WRITING.



*Driving the pilings for the seawall.*



*Sectional wooden forms - ready for concrete.*



*Pouring the concrete for the seawall.*

The island was inundated with four feet of salt water. Only six buildings were left standing. One of these was Maison Rouge, the elegant home of Lafitte. He moved out to temporary quarters in the hulk of one of his ships in order for Maison Rouge to be used as a hospital for hurricane victims.<sup>2</sup>

Down the Texas coast, a hurricane on September 16, 1875 struck the thriving port city of Indianola. More than half the town was totally destroyed, and 176 people were killed. The survivors dug out of the wreckage and then rebuilt their community. Indianola was an entry point for many immigrants from Germany and other European nations. From Indianola these families made their way inland to found New Braunfels, Fredericksburg and other towns in the southwestern part of the state.

Yet another hurricane pounded Indianola on August 19-21, 1886. This time practically every building in the town was destroyed. With nothing to return to, the inhabitants did not return. Today there are only some nondescript ruins near the sandy beach where once Indianola stood.<sup>3</sup>

### *The Great Storm: Galveston 1900*

In 1900 Galveston was ranked as the fifth most important port in the United States. More than two million bales of cotton were shipped from Galveston in 1900. However, the 1900 census counted the population of Galveston as 37,789 – trailing San Antonio, Houston and Dallas. Galveston had been the population leader in 1870 and 1880.<sup>4</sup>

A list of sixty “Galveston Firsts in Texas” was compiled by erudite *Galveston* newsman Bob Nesbitt in 1983. Among these are: First printing – 1817; First post office – 1836; First bakery – 1838; First grocery store – 1851; First national bank – 1865; First hospital – 1866; First telephone – 1878; First electric lights – 1883; First medical college – 1886; First golf course – 1898; plus fifty more “Firsts.”<sup>5</sup>

Established in 1871, the government weather station in Galveston was one of the first to report local weather conditions to the national weather office. In September 1900 the U.S. weather station in Galveston had a full staff of trained professionals and an array of scientific equipment for taking and reporting weather observations. Isaac Cline was the climatologist for this station.



*Raising the grade project.*

When the monster hurricane bulled its way through the Windward Islands, across Cuba and into the Gulf of Mexico, weather signals sent to Galveston predicted that the storm would make landfall east of Texas. When accurate storm directions were issued, they did not reach Galveston because telegraph lines across the South were down. Isaac Cline ran up the two red and black square hurricane warning flags about noon on Saturday, September 8, 1900, far too late for any kind of mass evacuation.<sup>6</sup>

The hurricane struck Galveston Island with a tumultuous fury, ripping buildings asunder and using the airborne and wave-tossed debris to smash anything offering resistance. Flying roof slates were especially lethal. They were a fearful weapon for serious injury or even decapitation. An

estimated 6,000 people on Galveston Island were killed – drowned, struck by debris, crushed by falling buildings, swept into the bay or out to sea. On Bolivar Peninsula and on the mainland, another 2,000 to 4,000 were thought to have been killed. Some four thousand houses were demolished. Most of the buildings that were not totally destroyed were severely damaged. Low-lying Galveston Island was submerged under a storm surge of more than 15 feet. This ranks as the deadliest natural disaster in the history of the United States.<sup>7</sup>

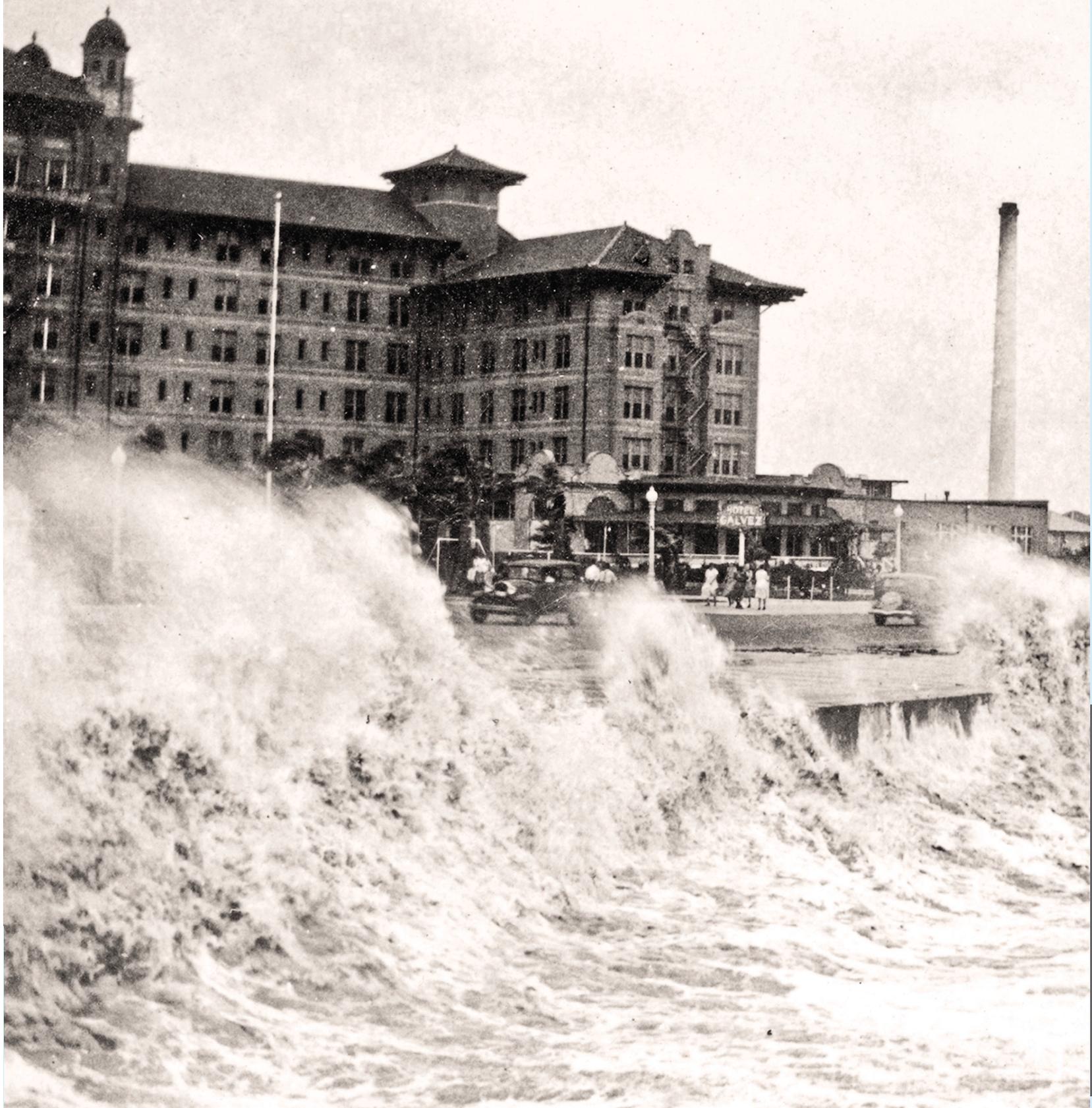
### *Aftermath And Future*

“The future? Galveston will be rebuilt stronger and better than ever before. It is *necessary* to have a city here. Even if the storm had swept the island bare of every human habitation and every structure and left it barren as it was

before civilized man set foot on the place, still men would come here and build a city because a port is demanded at this place.” Colonel William Lewis Moody, September, 1900.<sup>8</sup>

Brave words. But it must have been words that stirred the 30,000-plus dazed, distraught and despairing survivors as they tried to comprehend the panorama of destruction. As they sought family and friends – and undertook the gruesome task of identifying the thousands of disintegrating bodies. As they endeavored to find ways to re-create their city into a place of relative safety.

To that end, they organized new, more effective form of city government and pushed forward to clear the rubble, to dispose of the bodies of men, women, children and animals, to obtain food, water and shelter. Texas Governor



COURTESY OF THE ROSENBERG LIBRARY, GALVESTON, TEXAS

*1915 storm, the seawall at the Galvez Hotel.*

Joseph Draper Sayers marshaled the resources of the state to support the disaster relief efforts. Clara Barton, founder of the American Red Cross, came to Galveston, bringing supplies and workers. The city began to rebuild, just as Colonel Moody predicted.<sup>9</sup>

### *The Seawall*

A board of three engineers was appointed by the city to develop a plan for safeguarding Galveston against total destruction by future hurricanes. On the board were Alfred Noble, H. C. Ripley and Henry Martyn Robert, retired brigadier general and former chief of engineers of the U. S. Army. For sixteen anxious months these three researched and evaluated a multitude of ideas and plans. Then they proposed a comprehensive two-part project. Costing an estimated \$3.5 million, this project recommended action that would make a profound transformation of the City of Galveston.

The first part of the project was to build a reinforced concrete seawall from the south jetty along the beachfront for three and a half miles. The second part involved raising the level of the entire city to provide support for the seawall and to direct drainage of flood waters.<sup>10</sup>

The need for some kind of protection was obvious and urgent. Still, there were serious questions to be answered. Could this seawall (could **any** wall?) resist the immense power of waves driven by a Category 4 hurricane? Was the proposed size adequate? Was the proposed seawall in the right place? Should the seawall be moved back from the beachfront? Should it be extended? Was there **any** alternative to such an expensive construction plan? If all of the money was spent, and the seawall failed, what then?

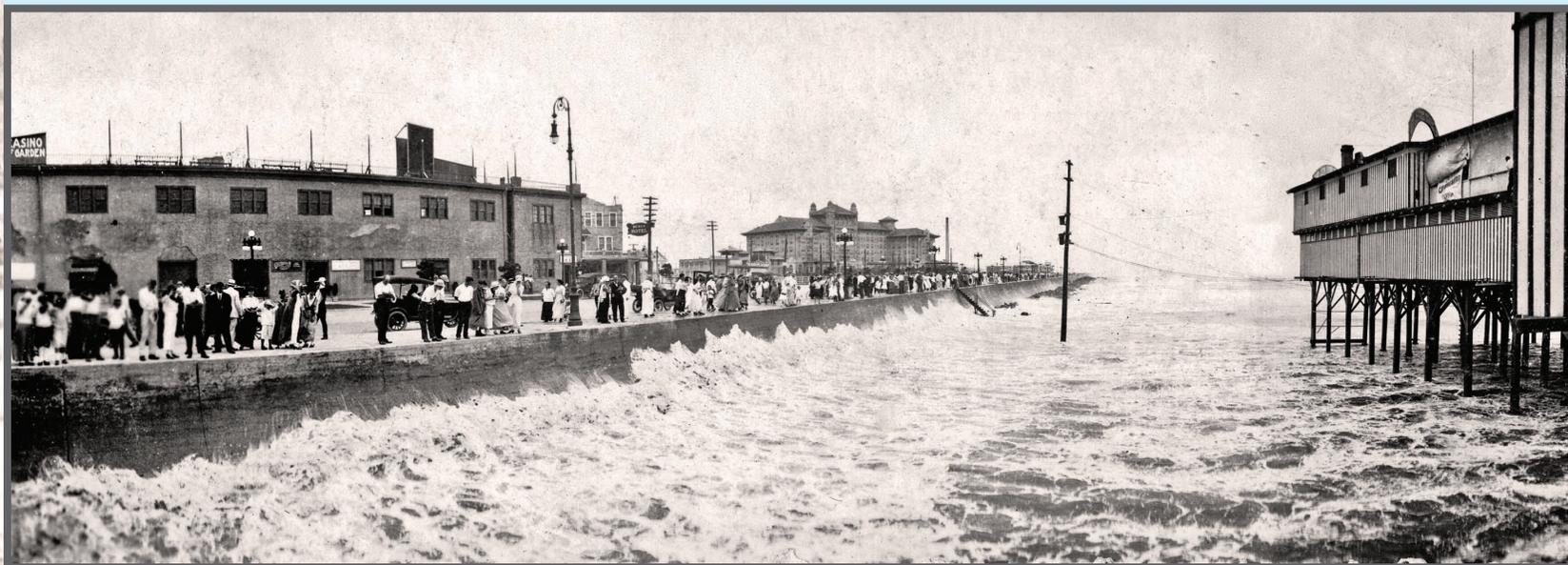
What, indeed! Action was demanded, and action was taken. Galveston County sold bonds to finance the seawall. On September 19, 1902, they signed a contract with J. M. O'Rourke and Co. of Denver for construction of the seawall. Workmen sank the first concrete pile in October, 1902.<sup>11</sup>

The seawall construction was organized in 60-foot interlocking sections. Four rows of pine piles, tapering from 12 to 17 inches in diameter, set about four feet apart, were driven 40 to 50 feet deep. A row of sheet piling, driven to 24 feet deep, was set on the Gulf side to add strength and protection against erosion. Wooden forms were used in pouring the concrete, section by section. Nine-

foot steel reinforcing rods (rebar) were strung at three-foot intervals in the concrete. The wall rose 17 feet above mean low tide. It was 15 feet wide at the base and 5 feet wide at the top. The side of the wall facing the Gulf was concave in order to absorb the shock of the crashing waves and throw them back upon themselves.<sup>12</sup>

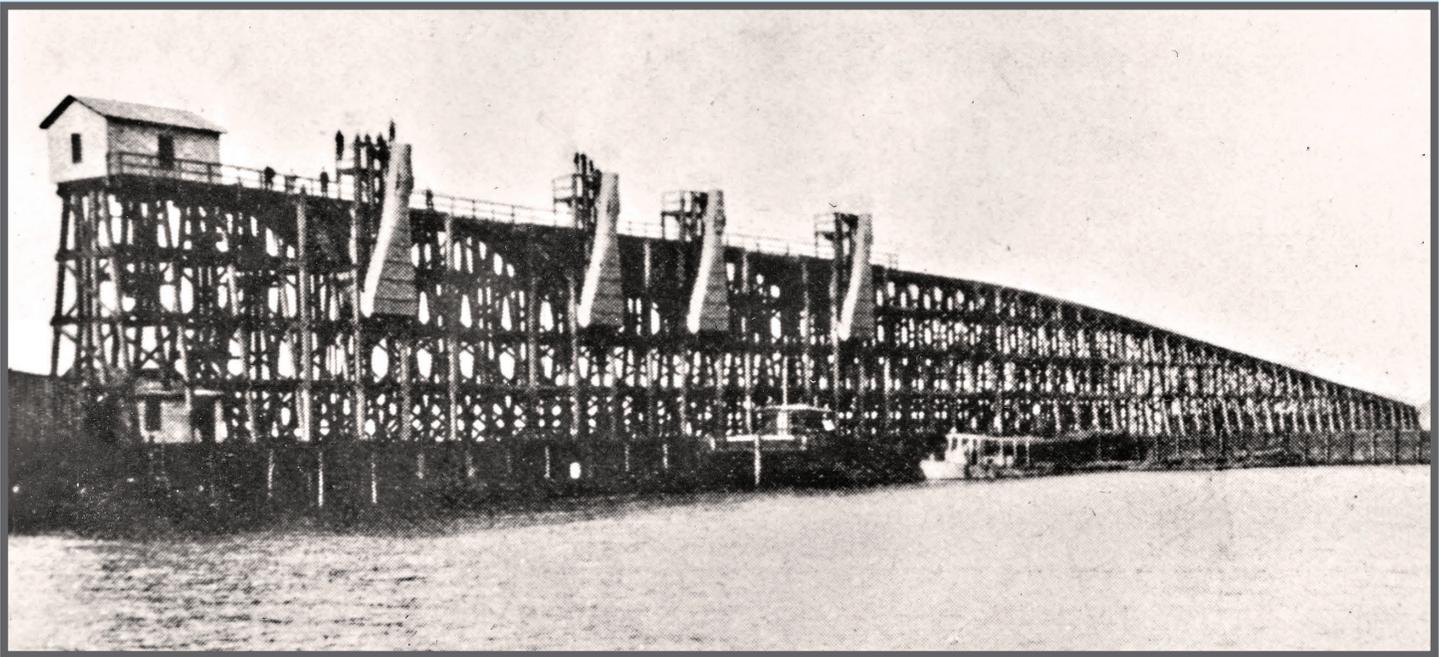
At the base of the wall on the Gulf side, a riprap of four feet square granite boulders was laid extending out 27 feet to provide additional protection against erosion and to reduce the force of the onrushing waves. On the top of the wall a street 100 feet wide was paved with brick. This was subsequently widened and became Seawall Boulevard. Begun in October, 1902, the seawall was completed on July 29, 1904. In later years, the U. S. government extended the seawall by about 5,000 feet to afford protection to Fort Crockett. Other additions and modifications have been made over the years until the seawall is now 10.4 miles long.<sup>13</sup>

When the original three-mile section of the seawall was completed in 1904, a ceremony attended by ten thousands people was held to dedicate monuments to celebrate this remarkable engineering and construction achievement. At one point in the ceremony, builder J. M.



*Early in the 1915 storm.*

COURTESY OF THE ROSENBERG LIBRARY, GALVESTON, TEXAS



*Built in 1912 to load iron ore from East Texas onto ocean-going ships, this giant loading dock installation stood at the terminus of the Port Bolivar Iron Ore Railway. It was 325 feet long, with a cable-operated incline of 350 feet, and height of 58 feet above high tide level. Four chutes were positioned for rapid gravity loading. Wielding the irresistible shock and fury of wild winds and waves, the 1915 hurricane pulverized the massive dock and swept the site clean of fragments. Concurrently, the screaming storm ripped up the rail line from Port Bolivar to High Island.*

O'Rourke was asked to speak. "I will not say anything for the wall," he stated, "for if it ever has an opportunity you will find it well able to talk for itself."<sup>14</sup>

### *Raising The City*

Construction of the massive Galveston seawall was one of the great engineering and construction feats of the 20<sup>th</sup> century. Its successful completion gave impetus to the second phase of the plan to save the city. This phase involved raising the height of the entire city from five to eight feet, sloping gradually down from the high of 16.5 feet at the seawall to the low on the bay side of the island.

Innovative engineering techniques were necessary to accomplish this gargantuan task. A canal was dug through the residential area to float dredges which transported sand from the ship channel into the city. Sand slurry was pumped through temporary, movable pipelines to fill in under raised homes, streets, sewers, utilities, fences, sidewalks and other structures. More than 2,000 buildings were lifted to higher levels. St. Patrick's Church was raised five feet, inch-by-painstaking-inch, using 700 jackscrews.<sup>15</sup>

Most of this raising the grade project was completed in 1910. Streets were paved. At the urging of the ladies of Galveston, the esplanade on Broadway was landscaped with grass, Washingtonia palms and oleanders.<sup>16</sup>

### *Time Of Trial: August 1915*

The hurricane of 1915 did not creep stealthily from the humid vapors of the tropical Caribbean to pounce upon an unsuspecting Texas coast. It thundered in mighty defiance as it scattered unwary seafarers, whipped the warm waters of the Gulf into a frothy maelstrom and announced to one and all its intent to wipe clean a massive swath of Texas.

Hurricanes are the major leagues of tropical storms. They are systems of constant, infinite motion, spreading over hundreds of miles, embodying thunder, lightning, torrential rains and powerful winds that drive tsunami-like sea surges. Such was the hurricane that approached the Texas littoral on Sunday, August 15, 1915. It made landfall about 50 miles down the coast, west of Galveston on Monday evening, August 16, and continued to pound the coast for three more days.<sup>17</sup> "Galveston's

Great Seawall Subjected to Test of a Severity That Could Hardly Have Been Surpassed" was the headline on the *Galveston News*, September 12, 1915.

"The Texas coast storm of 1915 probably was the most severe hurricane that has ever struck the coast of the Gulf of Mexico. Many of its proportions are remarkable among the storms of the world. . . The city was in the hurricane zone for 153 hours. A hurricane wind – of 60 miles an hour or more – blew for 19 hours and 10 minutes, and a wind of 70 miles an hour or more in velocity raged for 9 hours and 18 minutes. The maximum wind velocity was 120 miles, the lowest barometer reading 28.63 inches, the total rainfall 15.41 inches and the highest tide 11.956 feet above mean low tide." This report in the *Galveston News* of September 12, 1915, was based upon the observations of W. P. Stewart, forecaster for the Galveston Weather Observatory.<sup>18</sup>

Just as the designers of the seawall had planned, the concave face of the seawall diminished the force of the tempest-driven waves by curling their energy up and back upon themselves. One unforeseen consequence was that the sea spray thrown into the air

was whipped across the top of the seawall at great velocity by the howling wind. It was reported that the spray was thrown against the six-story Galvez Hotel with such force that it broke out windows on the top floors.

“The great Galveston Causeway, constructed at a cost of \$2,000,000, which since the spring of 1912 has served as the island’s gateway to the mainland is impassable.” “Big water mains that spanned the bay as part of the Causeway have been broken beyond hope of immediate repair.” *Galveston News*, August 18, 1915.

“Dolph Rogers, proprietor of Rogers’ Oyster Farm down the island, fears for whose safety have been felt among his friends here, is alive. With a life preserver around his waist he drifted with the high water from the site of his resort down the island across the bay to the mainland near Texas City, where he is now reported to be safe and sound.” *Galveston News*, August 18, 1915.

### *Pirates Defeated*

At the beginning of August, 1915, the Galveston Pirates baseball team were having one of their best years. They were anticipating ending their winning season at the top of the Texas League. Then the hurricane demolished the Pirates’ stadium. The team had to abandon the remainder of their 1915 and forfeit all chance for winning the League.<sup>19</sup>

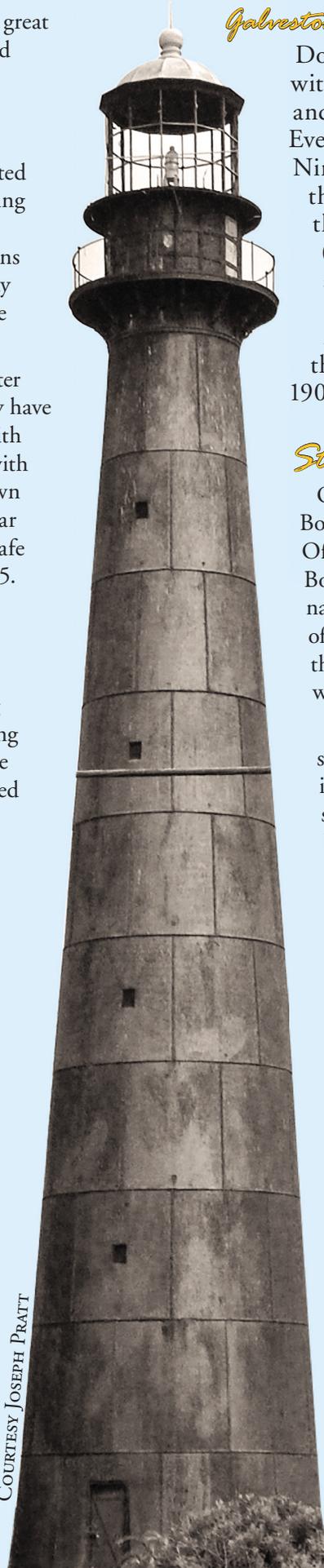
### *Schooner Hurlled Onto Seawall*

A seaworthy three-mast schooner was about 137 miles out of Mobile, Alabama when it was enmeshed in the hurricane tumult. When the captain tried to run before the wind, his sails were torn to tatters. With both anchors out and dragging, the ship was tossed from wave to wave in uncontrollable flight across the Gulf to Galveston.

Incredibly, this large ship was raised and hurled over the top of the seawall. She was jerked to a shattering halt when the dragging anchors caught under the toe of the seawall. Held by the anchor chains, the ship was pounded to pieces by massive waves. The captain and crew were rescued by courageous soldiers from Fort Crockett who rushed out to their aid.<sup>20</sup>

*Bolivar lighthouse.*

COURTESY JOSEPH PRATT



### *Galveston Prevails*

Downtown Galveston was inundated with water five to six feet deep. Telephone and telegraph communications were lost. Every ship in the harbor was damaged. Ninety per cent of all houses outside of the seawall were destroyed. Even so, the seawall held. Overall loss of life (Galveston Island, Bolivar Peninsula and the mainland) was reported to be 275. The seawall and the grade raising met the challenge, and proved that the action taken by the survivors of the 1900 storm was a farsighted success.<sup>21</sup>

### *Storm-Swept Bolivar*

Only a three-mile span of open water separates Bolivar Peninsula from Galveston Island. Officially classified as a sandbar or barrier island, Bolivar is only a few feet above sea level. This narrow peninsula is vulnerable to the same forces of nature as Galveston. Without the protection that the seawall afforded to Galveston, Bolivar was devastated by the 1915 hurricane.

Early warning before the arrival of the storm on August 16 allowed most of the inhabitants of the peninsula to evacuate to safety. Homes and businesses were destroyed by winds gusting to 126 mph or more and surging seas. Two hotels at Caplen were lost and never rebuilt. Much of the peninsula was under water to a depth of six feet or more.

The Bolivar lighthouse stands 117 feet above sea level, on a nine-foot concrete base. During the hurricane 61 people took shelter there. They huddled in fear as the winds howled and shook the lighthouse and wave levels rose above the base.

From the time that it was built in 1872, the Bolivar lighthouse flashed its powerful light to guide seamen every night until it was replaced in 1933 -- except two nights, August 17 and 18, 1915. The unflinching light was extinguished when surging waters of an eleven-foot tide broke through the door at the foot of the tower and washed away the oil used to fuel the light.

Nine people in the William Bloom family escaped the rising waters by climbing to the top of a cedar tree. Adults and children hung in the tree from Monday night until the waters



*The Galveston Causeway after the 1915 Hurricane.*

receded enough for them to slosh to better shelter on Wednesday.

Bolivar resident J. E. Stephenson, a survivor of the 1915 storm, was interviewed by A. Pat Daniels for his book, *Bolivar! Gulf Coast Peninsula*. Stephenson remembered, “some bodies washed up on the beach.” “There was a soldier who floated in [to Bolivar] on a bale of cotton who said that he had ridden out the storm from his army base at Texas City.”

Dead cattle, horses, sheep, goats and other livestock littered the peninsula. “You could almost walk for a whole mile on the carcasses of dead army mules that had been at the army’s Texas City base,” Stephenson related.

The Santa Fe Railway had a giant ore loading dock protruding out into the bay from Port Bolivar.

This dock was 325 feet long and 58 feet high. It was built to load iron ore from East Texas onto ships for transport to mills in the eastern U.S. This dock was swept away by the storm, which also destroyed all the rail lines on Bolivar Peninsula.<sup>22</sup>

### *Heavy Damage In Houston*

Leaving much of the coastal area in shambles, the 1915 hurricane roared on through Houston, inflicting serious damage from torrential rains and powerful winds. Although diminishing along the way, this storm was still capable of severe destruction as it passed through Oklahoma.

From one side of Houston to the other, homes were reduced to kindling. Fortunately, the conventional building

materials used to build homes in the early years of the 20<sup>th</sup> century were heavy and sturdy. Thus protected, residents suffered few casualties, although property damage surpassed the losses from the 1900 hurricane.

One of the houses damaged as the 1915 storm hit Houston was the home of pioneer oilman Henry T. Staiti in the Westmoreland Addition. Built in 1905, this large, elegant house had all of the “modern” conveniences, including in-home electricity. Viewing the storm damage, Mr. Staiti decided to make this an opportunity to redesign the entire house and add a sunroom. He commissioned prominent architect Alfred Finn to plan the new design. Some years later, Jesse Jones selected the same brilliant Alfred Finn to design the towering San Jacinto Monument.



Debris from Schooner near Fort Crockett.

In order to preserve this example of Houston's historic homes, the Heritage Society acquired the fashionable, spacious Staiti house and moved it onto the grounds of Sam Houston Park in 1986. Restored and authentically furnished, the Staiti house is now a favorite on The Heritage Society guided tours.<sup>23</sup>

### *Storm Delays Ship Channel Celebration*

After President Woodrow Wilson officially opened the Port of Houston to deep-sea shipping on November 10, 1914, Houston business leaders campaigned to persuade steamship companies to make Houston a regular port of call. The Southern Steamship Company was the first to schedule regular service to Houston. They dispatched the 312-foot ocean-going

ship *Saltilla* from New York with 75 carloads of general merchandise.

A gala welcome was planned for the arrival of the *Saltilla* at the Turning Basin. Houston Mayor Ben Campbell declared August 19, 1915 to be a city holiday and made preparations for a crowd of 10,000 Houstonians to meet the vessel and celebrate.

The 1915 hurricane rained on Mayor Campbell's parade. The captain of the *Saltilla* wisely opted to ride out the August 16 tempest well out in the Gulf. When the ship finally made port on the 22<sup>nd</sup>, it signaled the commercial potential of the Port of Houston. That day marked another leap ahead for Houston, on its way to becoming Texas' leading port, and Texas' largest city.<sup>24</sup>

### *The Once And Future Galveston*

Standing on shifting sands at the very interface of land and sea, Galveston Island (and Bolivar Peninsula) is the recipient of an extraordinary portion of nature's bounty – as well as her most destructive violence. A trade-off that has been generally favorable. Shrewd businessmen continue to bet large amounts that this favor will continue. Land values are astronomical. Large scale home developments presage even more commercial growth.

All of this underlines the significance of the 1915 hurricane. Galveston prevailed over the mighty hurricane. The seawall broke the surge of the raging sea; the grade raising shifted the flood waters away from most of the city. There have been many hurricanes striking Galveston since



1915 Storm - Seawall Blvd. at 8th Street.

COURTESY OF THE ROSENBERG LIBRARY, GALVESTON, TEXAS

1915. There will be more. The danger has been greatly reduced, but not eliminated. This is a continuing story . . .

Acknowledgement: No writer would approach an article concerning an event in the history of Galveston [especially a hurricane] without visiting the Galveston & Texas History Center at the Rosenberg Library. Casey E. Greene, Head of Special Collections at the History Center, and Carol Wood, Archivist, offered generous research assistance for this article.

It is noteworthy that the knowledgeable Casey Greene made important contributions to both of the year 2000 books about the Galveston hurricane of 1900. He assisted author Erik Larson in research for the national bestseller *Isaac's Storm*, and he was co-editor on *Through A Night Of Horrors, Voices From the 1900 Galveston Storm*. ★

## The Country Houses of John F. Staub

STEPHEN FOX

COLOR PHOTOGRAPHY BY RICHARD CHEEK

Fox's well-grounded and expansive thesis on the relationship between architecture and class structure, enhanced by stunning color images by architectural photographer Richard Cheek, thoroughly captures the importance of Staub's role in Houston's emergence as a premier American city. 416 pp. 9½x12. 224 color, 114 b&w photos. \$75.00 cloth

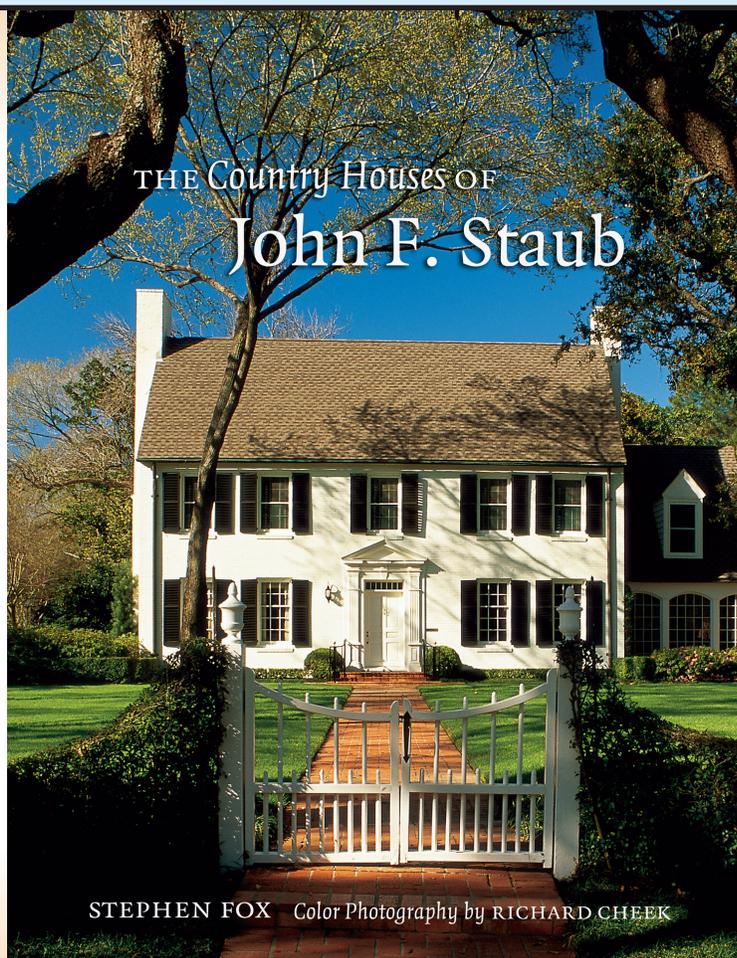
## The Garden Lover's Guide to Houston

EILEEN HOUSTON

This handy guide lists Houston-area places and events Texas Master Gardener Eileen Houston believes flower and garden enthusiasts will not want to miss. \$19.95 flexbound with flaps

## TEXAS A&M UNIVERSITY PRESS

College Station, Texas 800.826.8911 Fax: 888.617.2421  
www.tamu.edu/upress



# HistoryConsultants.Net

A Division of W. H. Kellar Consulting, LLC

*Specializing in Business and Institutional History*

Your History is your company's Unique Asset for:

- Marketing
- Corporate Identity
- Public Relations
- Personnel Training
- Legal Affairs

Let us show you how to communicate the story of your commercial success.

William H. Kellar, Ph.D.

P.O. Box 273067

Houston, Texas 77277

(713) 652-5060

contactus@historyconsultants.net