'An enjoyable, fast-paced tale' *The Economist*

DOUBLE PULITZER PRIZE WINNER

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THE WRIGHT BROTHERS

The Dramatic Story behind the Legend

CHAPTER NINE

The Crash

[He] rode the air as deliberately as if he were passing over a solid macadam road. Nothing I have ever seen is comparable. GUTZON BORGLUM I. With her young nephew Milton much improved in health and her classes at the high school soon to resume, Katharine was feeling more herself. Orville was in Washington preparing for the demonstrations at Fort Myer, staying at the elegant Cosmos Club and meeting “stacks of prominent people.” And hardly a day passed without something in the papers about the continuing clamor over Wilbur in France. Both brothers wrote when they had time, but Katharine longed for more than just aviation talk. “Suppose you tell me about a few things when you write!” she admonished Wilbur in one letter. “What do I care about the position of the trees on the practice ground? Hey! Hey! Sterchens wants to hear all about the beautiful young ladies and the flowers and champagne!” Wilbur would go only so far as to tell her Mrs. Berg was a “very smart” and “charming woman, like yourself.” Orville said he could hardly get any work done, so much time was taken up “answering the ten thousand fool questions people ask me about the machine.” A Washington Post reporter noted with amazement how “Mr. Wright stood and talked and talked and talked to his questioners.” Still, with it all, Orville was frank to tell Katharine, “I am meeting some very handsome young ladies!” The trouble was if he were to meet them again, he would have a hard time remembering their names. “I don’t know when Pop has been in such good health,” she was happy to report to Wilbur. “Now, if you and Orville don’t do some wild things to get me crazy, I think I’ll weather the thing through.”

Fort Myer occupied a stretch of high ground on the Virginia side of the Potomac River, just west of Arlington National Cemetery. With its neatly arranged, handsome red-brick buildings, it looked not unlike an attractive college campus, and offered a panoramic view of Washington five miles in the distance. At the center was the parade ground, measuring approximately 1,000 feet by 700 feet, and there Orville was to perform his test flights. It was a space smaller even than what Wilbur had to work with at Les Hunaudières, but with it came an ample shed for a hangar and a dozen army men ready to assist. To get there from the city he traveled back and forth by streetcar. After several days of trouble with the motor, and with help from Charlie Taylor and Charlie Furnas, both of whom had come from Dayton, he had all in order as scheduled. It would be the first full-scale public performance of a Wright plane in the United States, and the machine Orville was to take into the air had never been flown until now. Not until late in the afternoon of September 3 was it wheeled into place. That Orville was extremely on edge was plainly evident. “For the first time since his arrival in this city,” wrote a reporter for the New York Times, “Mr. Wright betrayed obvious signs of nervousness. The lines on his face seemed deeper than ever, and there was a furtiveness and an uneasiness of manner which was noticeable to everyone. He seemed to be making a tremendous effort to control himself.” He could hardly hold still. One minute he would be up on a sawhorse examining the upper wing, the next, down on his hands and knees helping adjust the starting mechanism. “That man’s nerves are pretty near the jumping off place,” another correspondent was heard to say. The crowd on hand was small. Washington had yet to catch on to what was happening at Fort Myer. At last, at about six o’clock, Orville climbed into his seat, the motor was started, and the big propellers were “cutting the air at a frightful rate,” when he called out, “Let her go!” The weights of the

catapult dropped, the plane shot down the rail, but then for 50 feet or more it skimmed barely above the grass before lifting into the air. Everyone was shouting. At the lower end of the drill field, Orville banked, turned, and started back, the white canvas of the double wings standing out sharply against the dark border of trees at the edge of Arlington Cemetery. The crowd broke into a “frenzy of enthusiasm” as the plane circled overhead at about 35 feet and headed away down the field again. Suddenly it veered off toward the wooden hangar, descended at an abrupt angle and hit the ground. The crowd rushed forward to find Orville calmly brushing the dust from his clothes. “It shows I need a great deal of practice,” he said. By his estimate he had flown somewhat less than a mile at a speed of about 40 miles per hour. According to their contract with the army, the brothers were to receive $25,000 if the Flyer achieved 40 miles per hour in its speed test. The day after, Friday, September 4, Orville and the Flyer remained in the air more than four minutes, circling the parade ground five and a half times under perfect control, covering three miles with no mishap. Major George Squier, president of the board in charge of the tests, thought the flight “splendid.” The Flyer “seemed to respond perfectly to your every touch, and that landing was a marvel,” he told Orville. Other officers were calling it the most wonderful exhibition they had ever seen. In the days that followed, Orville provided one sensational performance after another, breaking one world record after another. As never before the two “bicycle mechanics” and their flying machines were causing simultaneous sensations on both sides of the Atlantic. They had become a transcontinental two-ring circus. Only now it was the younger, lesser known of the two whose turn had come to steal the show. Early the morning of Wednesday, September 9, with relatively few spectators present, Orville circled the Fort Myer parade ground 57 times, remaining in the air not quite an hour. When word reached

Washington that he might fly again that afternoon, offices were closed and a thousand or more government officials —members of the cabinet, department heads, embassy personnel, members of Congress—came pouring across the Potomac by automobile and trolley to see for themselves. “At 5:15, as the sun was disappearing below the Virginia horizon,” wrote the Dayton Journal correspondent on the scene, “the latest invention of man to change the laws of nature, rose grandly into space and sailed over the drill grounds. Higher and higher it rose, turned at a slight angle as the aviator brought it round the far side of the field, and raced along at increasing speed. . . . Round after round the machine traveled on cutting short turns, shooting along the stretch and presented somewhat the appearance of an automobile racing about an imaginary course in the air. He had flown around the circle 55 times and was in the air altogether an hour and three minutes, another new world record. At home in Dayton the Herald called it “the most marvelous feat in aviation yet recorded.” The next day, September 10, against a stiff wind, Orville stayed in the air longer still by several minutes. Worried that Orville might be losing count of the number of times he had circled the field, Charlie Taylor climbed on top of the Flyer’s shed with a pot of white paint and a brush and began marking off the times on the tar paper roof in figures big enough for Orville to see. As the numbers 50 and 55 appeared, the excitement of the crowd became “acute.” Charlie began signaling with his arms. Not until after dusk, upon completing 57 1 /2 circles, did Orville start back down to earth. Swooping in for a landing, the plane headed straight in the direction of the crowd, but then, sending up a cloud of dust as its skids hit the ground, came to a stop not more than 20 feet short of the crowd. One of those watching that day was the noted sculptor Gutzon Borglum, who was later to carve the faces on Mount Rushmore. When he first saw Orville’s plane sitting on the ground, he had not been

particularly impressed. It looked to him like something any boy might build, not at all how he had imagined a flying machine. But then Orville had taken off. “He could fly as he wished, move as he willed. [He] rode the air as deliberately as if he were passing over a solid macadam road. Nothing I have ever seen is comparable. . . . There is no action of the wings, so you do not think of birds. It has life, power. And yet it was so simple, Borglum wrote, that one wondered why in the world human beings had not built one long before. Automobile horns were honking, people cheering, as Orville stepped from his seat. At the same time he was handed a letter from Wilbur. Orville smiled. It was the first letter he had received from his brother in two weeks, he said, and it seemed to please him quite as much as the triumphant flight he had just made. He had been in the air nearly an hour and six minutes, a new world record. To the crowd that quickly surrounded him he seemed “the coolest man around and entirely free from nervousness.” Nor did he show any sign of fatigue. Indeed, seeing Lieutenant Frank Lahm, one of the committee that would pass on the trials, standing nearby, Orville asked if he would like to go up while there was still some light left. So the two took off for a brief ride just as a full September moon was rising. The day after Orville set yet another record with a flight of an hour and 10 minutes, during which he thrilled the crowd with two figure eights. He tried one maneuver after another, as if he were an acrobat performing, at times turning corners so sharply that the plane seemed nearly on edge. He dipped down low to earth [wrote a reporter for the New York Herald]. He skimmed it at twice a man’s height. He rose steadily and gracefully until 150 feet of space lay between him and the ground. . . . He all but brushed the trees in Arlington Cemetery. He tried every combination of the levers and planes in his run of 58 turns around the field. There was never a misfire of the engine and never a symptom of distress. On Saturday the 12th, five thousand people

encircled the parade grounds. As they had never been able to do until now the American people were seeing with their own eyes one of their country's greatest inventions in action. Among those who rushed to congratulate Orville was Octave Chanute, who, a bit out of breath, exclaimed, "Good for you, my boy!," then asked him how it felt to be making history. "Pretty good," Orville said, "but I'm more interested in making speed." The remark made more headlines back in Dayton. It had not gone unnoticed that the secretary of war was another of those who had come to see the demonstrations, and future weapons of war were very much on the minds of the officers at Fort Myer and figured prominently in their conversations. Buoyant with his successes, Orville would write to Wilbur, "Everyone here is very enthusiastic and they all think the machine is going to be of great importance in warfare." A new book by the popular British novelist H. G. Wells featured a terrifying illustration of New York City in flames after an aerial bombing. "No place is safe—no place is at peace," wrote Wells. "The war comes through the air, bombs drop in the night. Quiet people go out in the morning, and see the air fleets passing overhead—dripping death, dripping death!" Until now the brothers had spent little time dwelling on such possibilities, not at least to judge by how very little they wrote or had to say on the subject. The excitement at home in Dayton was like nothing in memory, and at 7 Hawthorn Street especially, as Katharine recorded in a long Sunday letter to Wilbur. Orv telegraphed after he made his long flight Wednesday morning. . . . Our telephone rang steadily all evening. Everybody wanted to say something nice. I finally got to bed and had just dozed off when I was startled by the ringing of our doorbell. . . . I bounced out and was half way down the stairs when I realized what I was doing. I saw a man standing at our front door so I went up to the keyhole and said, "What is it?" "I am from the Journal and I would like to speak to Mr. Wright. I have a

telegram which I think would interest him." It scared me just a little because he acted as if he didn't want to tell me. I demanded, "What is your telegram?" He said that the Journal had a telegram saying that Orville Wright had made a record breaking flight. When he got that far I discovered that he was the young idiot who had been out here once before to write up Pop and hadn't returned a picture that Netta loaned him. So I said, "You can't see father. He's too old to be called up at such an hour as this. We knew about that before noon today." Now the joke is that he had some news—the second long flight—and I wouldn't wait until he could tell it. I departed for bed and heard him talking through the crack in the door—until I was on the stairs. The next morning I found the picture which he had borrowed, sticking in the front door screen. . . . Maybe I wasn't wrathy at being waked up at that hour of the night! I didn't sleep again until after one. The mayor had come to see them. He wanted to appoint a committee to plan a grand welcome home for the brothers. People were wild over the idea. Hasn't Orv had good luck with his motor? [she continued] I am afraid that your health as well as your motor is interfering with your doing your best. You are doing well enough, but we know that you would have made an hour long's flight long ago if you had had as good a chance as Orv. Since you didn't, I am glad Orv did just what he did—to shut up the ever-lasting knockers. We hope every day that we will see that you have made a record. We know that there is some reason for it when you don't and that makes us uneasy about your health. Those burns were so much more serious than we thought for a long time. That has pulled you down, I have no doubt. You look mighty thin in all the pictures. She had made up her mind that the Bishop should go to Washington to see Orville fly. She would go, too, but there was not money enough for both to make the trip. "Do you suppose we could scratch up the cash? Daddy has about a hundred dollars." The Bishop liked to preach the futility of

craving fame. “Enjoy fame ere its decadence, for I have realized the emptiness of its trumpet blasts,” he had written to Wilbur, and quoted favorite lines from the Irish poet Thomas Moore: And false the light on glory’s plume As fading lines of even. But for all that he was as eager as the thousands in Washington to see Orville in action. “He wants to go alright,” Katharine wrote. That same Sunday, September 13, on the other side of the Atlantic, Wilbur wrote to tell Orville the sensation he, Orville, was in Europe. “The newspapers for several days have been full of stories of your dandy flights, and whereas a week ago, I was a marvel of skill, now they do not hesitate to tell me I am nothing but a ‘dub,’ and that you are the only genuine sky scraper. Such is fame.” Wilbur’s longest time in the air at Camp d’Auvours thus far was just over 21 minutes, and only the week before, Léon Delagrange had made the longest flight ever in Europe, staying in the air slightly less than half an hour. He was having motor troubles, Wilbur explained, and the weather had been “something fierce.” To Katharine he reported he had had almost as many congratulations on Orville’s success as he himself had had a month earlier. But in a letter to his father, also written that same Sunday, Wilbur confided the real trouble was the constant fuss being made over him. It had become more than he could take. Everyone seemed a genuine friend and looked upon him as an adopted citizen of France. Nearly every evening two or three thousand people came out to see if he would fly and went home disappointed if he did not. One old man of seventy who lived thirty miles away made the round-trip on a bicycle almost every day for a week. The excitement and the worry, and above all the fatigue of an endless crowd of visitors from daylight till dark had brought me to such a point of nervous exhaustion that I did not feel myself really fit to get on the machine. . . . I can’t stand it to have people continually watching me. It gets on my nerves. As he explained to Katharine, he carried on his correspondence sitting in his

shed, the door locked to keep people out. Close to midnight in Washington, from the privacy of his room at the Cosmos Club, Orville wrote to Wilbur that he had never felt so rushed in his life, and that he had a stack of unanswered letters a foot high. To Katharine he wrote that the weather, being what it was, would probably take another few days to "quiet down." In any event, he added, "I do not think I will make any more practice flights." In his brief time thus far at Fort Myer, Orville had set seven world records. Rumors in Washington and in an article in the New York Times on September 15 saying that President Roosevelt would soon announce his intention of going up in the plane with Orville provided still more excitement. To many it seemed perfectly in keeping with a president so "given to the espousal of the unusual." Two years before he had startled the country by diving beneath the waters of Long Island Sound in a submarine. "Of course, if the President asks me to take him on a flight, I cannot refuse," Orville said when reporters questioned him. However, he was not enthusiastic about the idea. "I'm sorry," he said. "I don't believe the President of the United States should take such chances." II. On Thursday, September 17, the day was clear and cool, wind conditions were ideal. The crowd by the time Orville was ready to take off numbered more than 2,600. Expectations were higher than ever. A young army officer had been assigned, at his own request, to go with Orville as a passenger, as two other officers had already done and to which Orville had had no objections. This time, however, the young man was someone Orville did not like or trust. Lieutenant Thomas Selfridge was a twenty-six-year-old West Point graduate from San Francisco with two eminent military figures in his family background with the same name, a grandfather and great-uncle, both rear admirals. The great-uncle Thomas Selfridge had been the naval officer assigned in 1870 to survey the isthmus of Central America to determine the place to cut a canal from the Atlantic to the

Pacific. In little time Lieutenant Selfridge had become one of the army's most knowledgeable and enthusiastic aviation specialists. He was tall, handsome, and personable and had been made a member of the Signal Corps Aeronautical Board. In addition, he was a member of what was known as the Aerial Experiment Association, or AEA, founded and headed by Alexander Graham Bell, in the interest of progress in the design of flying machines, and that in particular troubled Orville. The young man had a good education and a clear mind, Orville had told Wilbur in a letter, but he was almost certainly a spy for Bell and others of the AEA. "I don't trust him an inch." "Selfridge is endeavoring to do us all the damage he can behind my back, but he makes a pretense of great friendliness," Orville told his father. The thought of someone like that seated beside him in the air was not easy to accept. Selfridge also weighed 175 pounds, more than anyone Orville had yet taken up. Still, as a member of the appraisal board, Selfridge was clearly entitled to a flight, and so Orville had agreed. Looking extremely happy, Selfridge removed his coat and campaign hat, handed them to a friend, and took his place next to Orville, who was attired in his customary dark suit, starched collar, black tie, and Scottish plaid cap. Charlie Taylor and Charlie Furnas turned the propellers to get them going and at 5:14, the plane headed down the track and lifted more slowly than usual, it seemed to those watching. For 30 to 50 feet it was barely above the grass before it began to "creep" into the air. The plane was at about 75 feet by the time it reached the lower end of the field, went neatly into its first turn, and came sweeping back at about 100 feet. "It was noticed that Lieutenant Selfridge was apparently making an effort to talk with Mr. Wright," reported the Washington Post. "His lips were seen to move, and his face was turned to the aviator, whose eyes were looking straight ahead, and whose body was taut and unbending." The plane circled the field three times at about 40 miles per hour. On the fourth

turn, heading for Arlington Cemetery, Orville slowed down somewhat and all seemed to be working well. Then, suddenly, just as the plane was passing over the "aerial garage," a sizable fragment of something was seen to fly off into the air. "That's a piece of the propeller," shouted one of the army officers. Orville would later describe hearing an unexpected sound, "a light tapping" behind him, in the rear of the machine. A quick backward glance revealed nothing, but he slowed the engine and started toward a landing. Then, at an altitude of about 125 feet came two loud thumps and "a terrible shaking." Orville shut off the engine, hoping to glide to a landing. He pulled as hard as he could on the steering and lateral balance levers, but to no effect. "Quick as a flash, the machine turned down in front and started straight for the ground." Lieutenant Selfridge, who had remained quiet until now, was heard only to say in a hushed voice, "Oh! Oh!" Those below watched in horror as the plane twisted this way and that, then plunged straight down, "like a bird shot dead in full flight," in Orville's words. It hit the ground with terrific force, throwing up a swirling cloud of dust. A half dozen army men and reporters, along with Charlie Taylor, rushed out to help, led by three cavalrymen on horseback. Orville and the lieutenant lay pinned beneath bloodstained wreckage, faces down. Orville was conscious but moaning in pain. Selfridge lay unconscious, a great gash across his forehead, his face covered with blood. The scene around the wreckage became one of wild confusion. Officers were shouting orders, automobiles honking. Hundreds of people from the crowd who dashed forward had to be held back by the cavalrymen, one of whom was heard to shout, "If they won't stand back, ride them down." Several army surgeons and a New York doctor in the crowd did what they could for the two men until the stretchers arrived and they were carried off to the base hospital at the far end of the field. A reporter wrote of having seen Charlie Taylor bend down and loosen Orville's tie and shirt

collar, then, stepping back to lean against a corner of the smashed plane, sob like a child. Among the crowd that gathered outside the hospital as night came on were Charles Flint and Octave Chanute. Not until well after dark did word come from within the hospital. Orville was in critical condition, with a fractured leg and hip, and four broken ribs, but was expected to live. Lieutenant Selfridge, however, had died at 8:10 of a fractured skull without ever having regained consciousness. His was the first fatality in the history of powered flight. Speaking for the Army's Signal Corps, Major George Squier praised Lieutenant Selfridge as a splendid officer who had had a brilliant career ahead of him. But no one who had witnessed the flights of the previous days could possibly doubt that the problem of aerial navigation was solved. "If Mr. Wright should never again enter an aeroplane," Squier said, "his work last week at Fort Myer will have secured him a lasting place in history as the man who showed the world that mechanical flight was an assured success." That Orville's passenger that day could well have been Theodore Roosevelt was not mentioned. The telegram from Fort Myer arrived at 7 Hawthorn Street just after Katharine returned from school. Bishop Wright was in Indiana attending a church conference. There was never a question of what she must do. Moving into action without pause, she called the school principal, told her what had happened, and said she would be taking an indefinite leave of absence. Then, quickly as possible, she packed what clothes she thought she would need and was on board the last train to Washington at ten that same evening. Bishop Wright, too, had received the news, but from the little he wrote in his diary there is no telling how stunned or alarmed he was. Nonetheless, he excused himself from the conference and returned to Dayton without delay. Once there he wrote to Orville and clearly from the heart. I am afflicted with the pain you feel, and sympathize with the disappointment which has postponed your final

success in aeronautics. But we are all thankful that your life has been spared, and are confident of your speedy though tedious recovery, and of your triumph in the future, as in the past. Then, in the way of a fatherly sermon, he added, “We learn much by tribulation, and by adversity our hearts are made better.” It was eight o’clock at Camp d’Auvours the morning of September 18 when Hart Berg arrived at Wilbur’s shed to tell him the news. At first Wilbur seemed not to accept what he heard. A thousand people had already gathered at the field. The weather was ideal for flying, Le Mans more crowded than ever with people eager to see him fly. But out of respect for Lieutenant Selfridge, Wilbur postponed all flights until the following week, then, shutting himself in his shed, refused to see anyone except Berg and one or two others who came to console him. “Now you understand why I always felt that I should be in America with Orville,” he said. “Two heads are better than one to examine a machine.” Left alone, he sat with head in hands. When another friend came in—Léon Bollée most likely—Wilbur looked up, his eyes full of tears, and said if anything could make him abandon further work in solving the problem of flight, it would be an accident like this. Then, springing to his feet, he declared, “No, we have solved this problem. With us flying is not an experiment; it is a demonstration.” Others present saw him struggle with his emotions. He asked for fuller details, but there were none. Since coming to Camp d’Auvours, he had acquired a bicycle on which he now went riding eight miles to Le Mans in the hope of hearing further word from Fort Myer. For some time he could be seen pacing nervously about the porch at the Hôtel du Dauphin. He felt very bad about “this business,” he told a reporter for the Paris Herald who approached him. “It seems to me that I am more or less to blame for the death of poor Selfridge, and yet I cannot account for the accident. Of course, when dealing with aeroplanes, or indeed anything mechanical, there is always the

possibility of something breaking, and yet we imagined that we had eliminated all danger. . . . The thing which is worrying more than anything is that my father, who is almost eighty years of age, will take this matter very much to heart. He has always been nervous about our trials, but up to the present he has never had occasion to be so. Toward dusk, Wilbur took his bicycle and rode back to Camp d'Auvours. In a letter to Katharine written the following day, he told her he could not help thinking over and over that if he had been with Orville the accident would never have happened. "I do not mean that Orville was incompetent to do the work itself, but I realized that he would be surrounded by thousands of people who with the most friendly intentions in the world would consume his time, exhaust his strength, and keep him from having proper rest. If I had been there I could have held off the visitors while he worked or let him hold them off while I worked. . . . People think I am foolish because I do not like the men to do the least important work on the machine. They say I crawl under the machine when the men could do the thing well enough. I do it partly because it gives me opportunity to see if anything in the neighborhood is out of order. He presumed their father was terribly worried about Orville's condition, he wrote in conclusion, but things would turn out right at last. Of this he was sure. At his upstairs desk in Dayton that same day, September 19, Bishop Wright wrote to Wilbur in much the same spirit. It is sad that Orville is hurt and unpleasant that his success is delayed. It is lamentable that Lieut. Selfridge lost his life. I am saddest over his death. But success to your invention is assured. The brighter day will come to you. On Monday, September 21, at Camp d'Auvours, Wilbur was back in action taking "the bull by the horns," as he liked to say, before ten thousand spectators. He flew one hour, 31 minutes, and 25 seconds, over a distance of 40 miles establishing another sensational world record. Among the enormous crowd was the American

ambassador to France, Henry White, who was reported to have been the most excited man present and who, “quite forgetting his usual diplomatic dignity” went racing across the field to be the first to shake Wilbur’s hand. III. Katharine reached Washington early the morning of September 18 and found Charles Flint and two army officers waiting at the station, ready to drive her immediately in a Signal Corps automobile across the river to Fort Myer. At the hospital she was met by the young army surgeon and shown into Orville’s room. “I found Orville looking pretty badly,” she reported in a letter home to Lorin. His face was cut in several places, the deepest of the gashes being over his left eye. He was so sore everywhere he could not bear to be touched. His leg was not in a cast, as she had expected, but “in a sort of cradle” held up by a rope to the ceiling, she wrote to Wilbur. “When I went in his chin quivered and the tears came to his eyes, but he soon braced up again. The shock has weakened him very much, of course.” As the day went on Orville turned extremely nervous and on edge. “I suppose the working with his leg has made him so. I bathed that side of his face that was exposed, and his chest and shoulders. That quieted him, some.” She liked the doctor and the male nurse on duty. The room, she was also pleased to report, was full of flowers and there was a great basket of fruit and a pile of telegrams on a side table, including one saying, “The thousand proud pupils and teachers of Steele High School unanimously extend sympathy and encouragement.” “I will acknowledge the notes and telegrams,” she said. “There is a desk in the room, and I can sit there and write. After a bit I can read to him.” How long she would be staying was impossible to say. He was not dangerously injured, she stressed, but she was sure it would be weeks before he would be able to leave. At first she lived with a couple named Shearer, relatives of a Dayton friend. To get to the hospital from their home in Washington by trolley required three transfers and took fully an hour. Still, she was at Orville’s

bedside every day without fail. Some nights, too tired for the return trip to town, she slept at the hospital. Orville's progress was not steady. "Last night was a rather bad time for little brother and this morning, too," she wrote to her father. His leg was broken in two places, she explained, but the breaks were "clean and in as favorable places as they could be," in the thigh bone of the left leg. The doctors were making a great effort not to let the leg be shortened and apparently they were succeeding. The broken ribs made it necessary to bandage him tightly and that made his breathing hard. "Tonight I am staying all night with him. After I came today he quieted down and was so much easier that I made up my mind to see him through the night. It is after eleven now and he has been asleep nearly an hour. Last night codeine had no effect. Tonight it has." Her letter was written September 21, the same day Wilbur made his recordbreaking flight at Camp d'Auvours. Will had his nerve with him sure enough [she wrote, knowing how her father must feel]. One hour, thirty-one minutes, twenty-five seconds! All the newspapermen began calling up the hospital to tell me. Orville did a great deal of smiling over it. That did him an immense amount of good. "It's midnight now and I am very tired," she wrote at last. "Orville is still sleeping. The night nurse has gone down to get a sandwich and some tea for me." Meanwhile, the army's Aeronautical Board had begun a formal investigation to determine the cause of the crash. "Orville thinks that the propeller caught in one of the wires connecting the tail to the main part," Katharine wrote. "That also gave a pull on the wings and upset the machine." As would eventually be determined, Orville was correct. One of the blades of the right propeller had cracked; the propeller began to vibrate; the vibration tore loose a stay wire, which wrapped around the blade, and the broken blade had flown off into the air. Because the stay wire had served to brace the rear rudders, they began swerving this way and that and the machine went out of control.

Until now both of the Wright brothers had had close scrapes with death. Wilbur had crashed two times with slight injuries, Orville four times, twice at Kitty Hawk and twice at Huffman Prairie. But as Wilbur wrote to their father, this was “the only time anything has broken on any of our machines while in flight, in nine years experience.” Nor had either of them ever plunged “head foremost” straight to the ground from an elevation of about 75 feet. For Katharine especially, the one member of the family there at Orville’s side seeing the condition he was in, it was truly a miracle he had escaped with his life. Charlie Taylor and Charlie Furnas—“the two Charlies” as they had become known at Fort Myer—came to the hospital to show Orville the piece of the propeller blade that had broken away. The wreckage of the machine, they assured him, was secure in the shed, where the windows and doors had been nailed shut, and a guard stationed. They were packing the plane’s engine and transmission parts that were undamaged to be shipped home. That accomplished, they, too, would be on their way. On September 23, Alexander Graham Bell and two members of his Aerial Experiment Association came to the hospital to see Orville, but learned he was not yet ready for visitors. The group then crossed the parade field toward Arlington Cemetery to view Lieutenant Selfridge’s casket still awaiting burial. On the way they stopped at the shed. Charlie Taylor, who had not as yet shipped the wreckage of the Flyer back to Dayton, had taken a break for lunch. The only one on duty was the guard, who agreed to let the visitors into the building where the crate containing the Flyer stood open, the wreckage on display. Bell took a tape measure from his pocket and made at least one measurement of the width of a wing. Word of this was not to reach Katharine or Orville for another week, but when it did they were extremely annoyed. Katharine asked Octave Chanute for his view on the matter and after talking to the soldier who had witnessed the incident, Chanute felt it

was not something to be overly concerned about. When Charlie Taylor, on his return to Dayton, told Bishop Wright what had happened, the Bishop, in a letter to Katharine, allowed it was “very cheeky” of Bell, but “a very little piece of business anyway.” No more was said of the matter and exactly what Bell’s intentions were was never made clear. Everyone at the hospital continued to be extremely kind and helpful to Katharine, and while she did not find the military hospital quite up to standards, no other hospital would have permitted her to stay there and without a single restriction. The doctors and the day nurse were “splendid.” But having learned that the night duty nurse looked in on Orville only once every half hour and that he was stationed on the floor below, she felt she had to be on hand for Orville. She stayed day and night, which Orville greatly preferred. Often he was delirious at night and could not be left alone. The strain on Katharine was taking a toll. “Brother has been suffering so much . . . and I am so dead tired when morning comes that I can’t hold a pen,” she wrote to Wilbur in explanation of why he had heard so little from her. She fended off reporters and received visitors who were denied access to Orville. She continued to answer mail and telegrams, and it was she who represented Orville at the funeral ceremony on September 25 when Lieutenant Selfridge was laid to rest in Arlington Cemetery with full military honors. The role she had taken upon herself did not go unnoticed or unappreciated. Some of the press concluded she had to be a nurse and so described her. “Your sister has been devotion itself,” wrote Octave Chanute to Wilbur. Most important by far, Orville told her he never could have gotten through the ordeal were it not for her. Others tried to show their empathy and respect in other ways. Alexander Graham Bell invited her to take a drive one evening along with Octave Chanute, after which they dined at the Bell home on 33rd Street in Washington. It was the only time she had been anywhere, she told her father. She was growing dreadfully

homesick and worried over earning no income. “Have lost eighty-two and a half dollars already,” she reported to Wilbur on October 2, knowing she still had a long time to go before a return to Dayton would be possible. Orville seemed to be improving but was still in no shape to leave for home. The night of October 3, his temperature jumped to 101 degrees and for no apparent reason. Orville was thirty-seven, but in his present condition, lying there, he looked older by far. The chances that he might ever fly again—or ever want to fly again —seemed remote, if not out of the question. Letters from home and letters from Le Mans helped greatly. The postscript of one letter from Wilbur gave her and Orville both a particularly welcome lift. “I took Bollée (240 pounds) for a couple of rounds of the field,” he wrote. “It created more astonishment than anything I have done.” “We are both fairly wild to get home,” Katharine wrote to him. She had been thinking of going back for a week or so, if only to get some sleep. But then Orville would turn miserably uncomfortable, unable to get his breath. “I think I will have to stay until I bring him home,” she wrote to her father on October 17, a month to the day since the crash. Orville continued having his “ups and downs,” which the doctors attributed to indigestion. So she began cooking for him—broiled steak, beef broth, soft-boiled eggs. When Walter Berry, the American attorney who three years before had come to Dayton with the French delegation, invited her to dinner, she had to turn him down. She was refusing nearly all invitations, she explained to her father, being “too tired to talk!” By the last week of October, it was decided Orville should be moved to Dayton, not because he was sufficiently recovered, but in the hope that being back in familiar surroundings might help alleviate his nervousness. Three days before he was to leave, two nurses helped him out of bed to try standing with crutches and the blood rushed down within his left leg as if the leg were about to burst and he nearly fainted. But on October 31, after five

weeks and five days in the hospital and with Katharine still at his side, Orville was taken aboard a train at Washington's Union Station. A good-sized crowd stood waiting at the Dayton station as the train pulled in the next morning. Katharine stepped out first onto the platform. Then Orville appeared on crutches, supported by two train officials. "Many had come there to cheer the return of the man who had been instrumental in placing the fair name of Dayton before the eyes of the civilized world," wrote the Dayton Journal. But instead of cheers there was silence and murmurs of pity and sympathy, so drawn and wasted did the hero look. No one was allowed to speak to him except members of his family. Her brother was still a very sick man, Katharine explained. Brother Lorin had come to the station to meet them and a carriage stood waiting. But the vibrations on the train ride had been an agony for Orville and any more of that in the carriage, it was decided, should be avoided. So he was moved slowly along the twelve and a half blocks to Hawthorn Street in a wheelchair. Bishop Wright was at the house to greet them, and Carrie Kayler (who had been married and was now Carrie Grumbach) was on hand to prepare dinner. Orville's mind was "good as ever," the Bishop would record that night, "and his body promises to be in due time." A bed had been set up for him in the front parlor. As for herself, Katharine allowed she was "tired to death." In the days that followed Orville still required "a good deal of attention," as Katharine recorded, but was "tolerably active," able to stay up longer through the day, sometimes for several hours. A local surgeon who looked him over found his left leg had been shortened about an inch—not the one eighth of an inch he had been told at the Fort Myer hospital—but with proper padding in the heel of his shoe he should have no serious trouble. Neighbors, old school friends, came to call on Orville. By the second week in November, Charlie Taylor was pushing him in the wheelchair to the shop on Third Street, where the engine

from the Fort Myer Flyer had been uncrated for inspection. “I have an awful accumulation of work on hand,” Orville told Wilbur on November 14, in the first letter he had written since the accident. Home and a little work seemed to do exactly what had been hoped. So improved was he in health and outlook, and such was his progress walking on crutches, that by late December he and Katharine were letting it be known they would soon be sailing together for France to join Wilbur, Wilbur having told them they were needed.