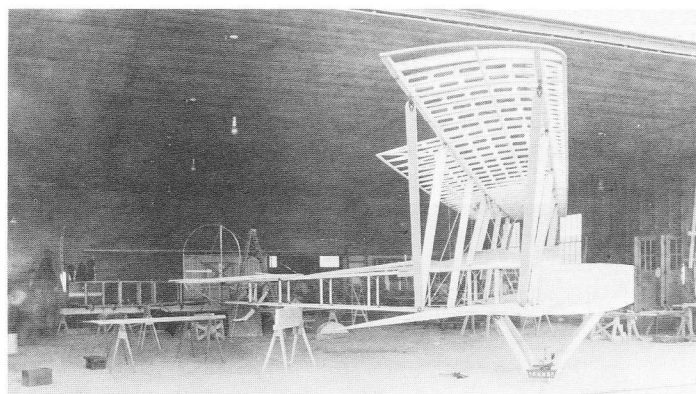




## THE DAYTON WRIGHT "FIRST SHOT"

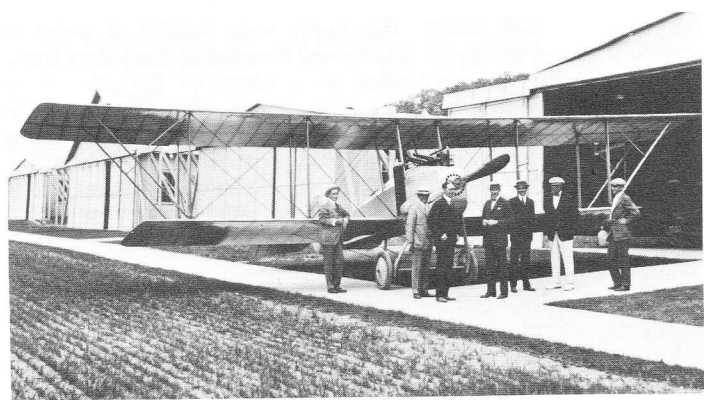
By ROBERT CASARI

In 1916, the Wright Field Company had begun operating a small flying school on a field in north Dayton, Ohio with Howard Rinehart as the instructor. The backers of this operation were Edward A. Deeds; two Dayton bankers, the Harold E. Talbotts, senior and junior; and inventor Charles Kettering — with Orville Wright as a participant. In early 1917, the group formed the Dayton Airplane Company<sup>1</sup> which, on another field a few miles south of Dayton, erected five buildings equipped for the manufacturing of airplanes on an experimental basis. A number of members of the old Wright Company were employed there, having remained in the area after the Wright-Martin company, for whom they were then working, had ended its operations in Ohio.<sup>1</sup>

Work began in early 1917 on the trainer, intended for use at the flying school and which would be more suitable than the conglomerate of aircraft than being flown there. Louis C. Luneke was the design engineer, in consultation with Orville Wright, and the layouts seem to have been prepared in an office in the City National Bank Building owned by the Talbotts in Dayton. The shop work was done at South Field, as it had become known, in the new buildings under the direction of Harvey Geyer, Jim Jacobs, and Charles Nellis, all from the old Wright Company.<sup>2</sup> Parts for two machines were fabricated in the woodworking shop in building D4 and assembled in D3.<sup>3</sup>

In 1918, the Dayton Wright Airplane Company was one of the largest aircraft manufacturing concerns in the United States and, by the Armistice, had built twice as many de Havilland DH-4's as the two other American manufacturers combined. But the firm had much less pretentious beginnings in early 1917, when it developed an obscure trainer that was given the unlikely name of

Two views of Dayton-Wright "First Shot" showing construction (above) and final completion (below).



"First Shot." While this biplane was never considered for quantity production during the way the United States was then entering, it did have a part in the initial growth of the Dayton firm and participated in training activities there for some time.

On April 6th, the country entered World War I and the Talbotts, Kettering, and Deeds made immediate plans to become a major producer of airplanes. Three days later, with the Dayton Airplane Company as a nucleus, they formed the Dayton Wright Airplane Company, still retaining Orville Wright as an associate whose name had now been added to the company's title.<sup>1</sup>

Harold Talbott decided this "first shot" by the company should be called the "FS" and the first machine became the FS-1.<sup>2</sup> Only eight weeks after the design was initiated, the trainer was completed<sup>2</sup> in late spring at South Field.<sup>3</sup> It was a conventional wood and fabric design with two-bay wings (the upper overhand braced by twin struts), ailerons on the upper wing, a balanced rudder without a fixed fin, a two-wheeled landing gear with tail skid, tandem cockpits, and the engine cowling and top surface of the fuselage around the crewmen of metal.<sup>3</sup> A Hall-Scott 4-cylinder engine of about 100 h.p., probably the model A-7a, was installed with two radiators, one on each side of the fuselage.<sup>5</sup> Howard Rinehart, the company test pilot, undoubtedly tested the new model at South Field and found it met the company's requirements for a docile trainer. It was light on the controls and very responsive, would not spin, and recovered from a stall smoothly. The maximum speed was 68 m.p.h. and the machine landed at only 38 m.p.h.

The FS-1 was then flown to North Field where Rinehart and Archie Freeman were instructing students for the Wright Field Company and Barney Gorman was managing the operation.<sup>2</sup> Two weeks later, the FS-2 joined its twin at the flying school and the pair continued to be used there for many months.<sup>2</sup> By late 1917, North Field had been taken over by the Army and renamed McCook Field, ending operations of the Wright Field Company. The two FS machines were probably moved to South Field, now the experimental field for Dayton Wright whose huge Plant No. 1 was located less than a mile away. It was there that the DH-4 was being built, though the equipment installation was still not clearly established. As a result, the company temporarily installed a radio in one FS for trial.<sup>5</sup> Archie Freeman made several flights in this machine, talking from a point over the Soldier's Home at Dayton to Signal Corps men using Kettering's set at Ridgeleigh Terrace.<sup>5</sup> Some work was done on shielding and bonding that helped accelerate the installation in the DH-4.

While the FS had proven itself as a trainer, its usefulness at South Field was limited and one was sold to a man named Hinkley. Later, the company obtained a 220 h.p. geared Hispano-Suiza engine which was installed in the other FS, giving it a terrific rate of climb though the drag of the trainer limited the maximum speed to a little over 85 m.p.h.<sup>6</sup>

What finally became of the last FS is not known, though it may have been sold by the company or an accident could have removed it from the flying scene at South Field. Dayton Wright did design a number of other airplanes before being absorbed by Consolidated Aircraft in 1923, but the company's real fame was through the Standard J-1's, the DH-4's, and XB-1A's that it built in quantity during this period — all conceived by other firms. While shortlived, the Dayton organization did make a major contribution to the country's World War I production effort.

### REFERENCES

1. Wilbur and Orville Wright, *The Papers of Wilbur and Orville Wright*, two volumes, Edited by Marvin W. McFarland, (New York: 1953), pp. 1114-1116.
2. Roland V. Hutchinson, *Skylarking 1917-1918*, MS, 1943, pp. 2-3.
3. Photographs, author's collection.
4. Photographs, War Department General Staff, World War I Prints, National Archives.
5. Hutchinson, p. 11.
6. *Ibid.*, p. 32.
7. Interview with Harold E. Morehouse, October 11, 1971.