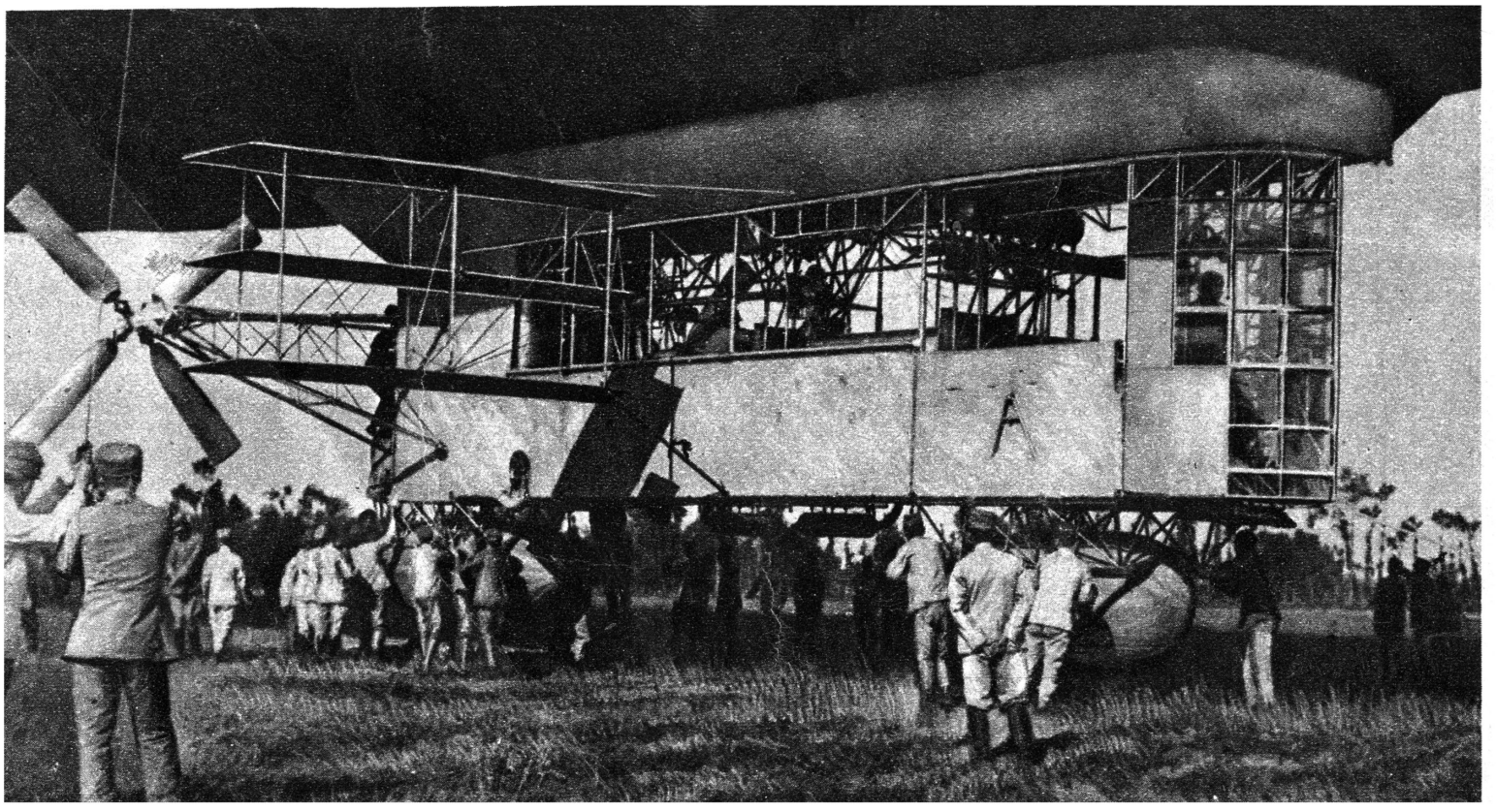
January 31, 1918



The car of one of the great new Italian dirigibles, named after Senator Forlanini, who has spent many years developing an airship much superior to the Zepplin.

A DIRIGIBLE better than the Zeppelin has been invented by Enrico Forlanini, an Italian Senator, who has been at work on the development of airships ever since 1877. Realizing at that time that the carrying of his plan to completion would have to be the work of later years, when he could command leisure and means, he entered the world of industry and worked his way up to the ownership of the foundries and machine shops of Forti, Italy. After twenty-odd years of effort in this field he again took up his favorite experiment in aerial navigation. Since then he has devoted much of his time and has spent several hundred thousand dollars on the construction of dirigibles. The first of these, designed in 1901, he christened with the name of Leonardo da Vinci, the great Italian who in the fifteenth century foresaw the possibilities of aerial navigation. But not till 1909 was the "Leonardo" finished; nor was it all that its creator wanted it to be. He built a second and improved type, which he launched in 1912 under the name of "Citta di Milano" in honor of his native city. Then the Italian Navy wanted one, and this resulted in the "Forlanini," third type, for short, F-3. The F-4 appeared in 1916, the F-5 in 1917, and what is forthcoming in 1918 may not be told. The great difference between the German and the Italian type is that the Zeppelin is a rigid airship, while the Forlanini is flexible, or rather semi-flexible. The Forlanini, according to reports, is capable of flying sixty miles an hour, of carrying a full defensive equipment, with the appointed quantity of bombs, (measured in tons,) and traveling at an altitude of 20,000 feet. The Italian dirigible is light in construction in proportion to its size, another advantage over the Zeppelin, as the light weight results in efficiency of climbing. The Forlanini is compact in construction, since the nacelle is not suspended but firmly attached to the body of the ship; it offers the least resistance to the air because of the arrangement of its propelling and governing system. The F-5 type, in volume, is 700,000 cubic feet; the length, 300 feet; maximum width, 66 feet. There are twelve airtight compartments for the gas. Total weight, 22,000 pounds. The F-5 carries 22,000 pounds at the start. At an altitude of 13,000 feet, where the air is two-thirds rarefied, and the climbing power of the airship consequently reduced, the dirigible can lift 8,000 pounds, while it can lift 13,000 pounds at an elevation of 7,000 feet. These figures are interesting when considered in connection with the weight of the crew, consisting of one commander, two officers, and two mechanicians, and to that of the fuel. The surplus carrying power is available in time of war for fighting equipment; in time of peace, for passengers. The fighting value of the airplane has since the war caused it to overshadow the dirigible, but when peace comes the latter will probably come into greater vogue.