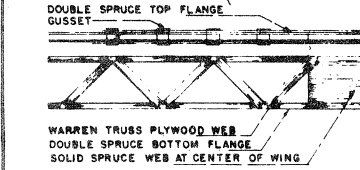
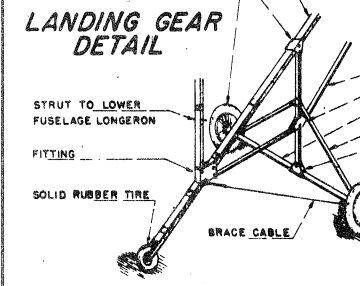
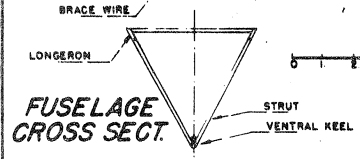
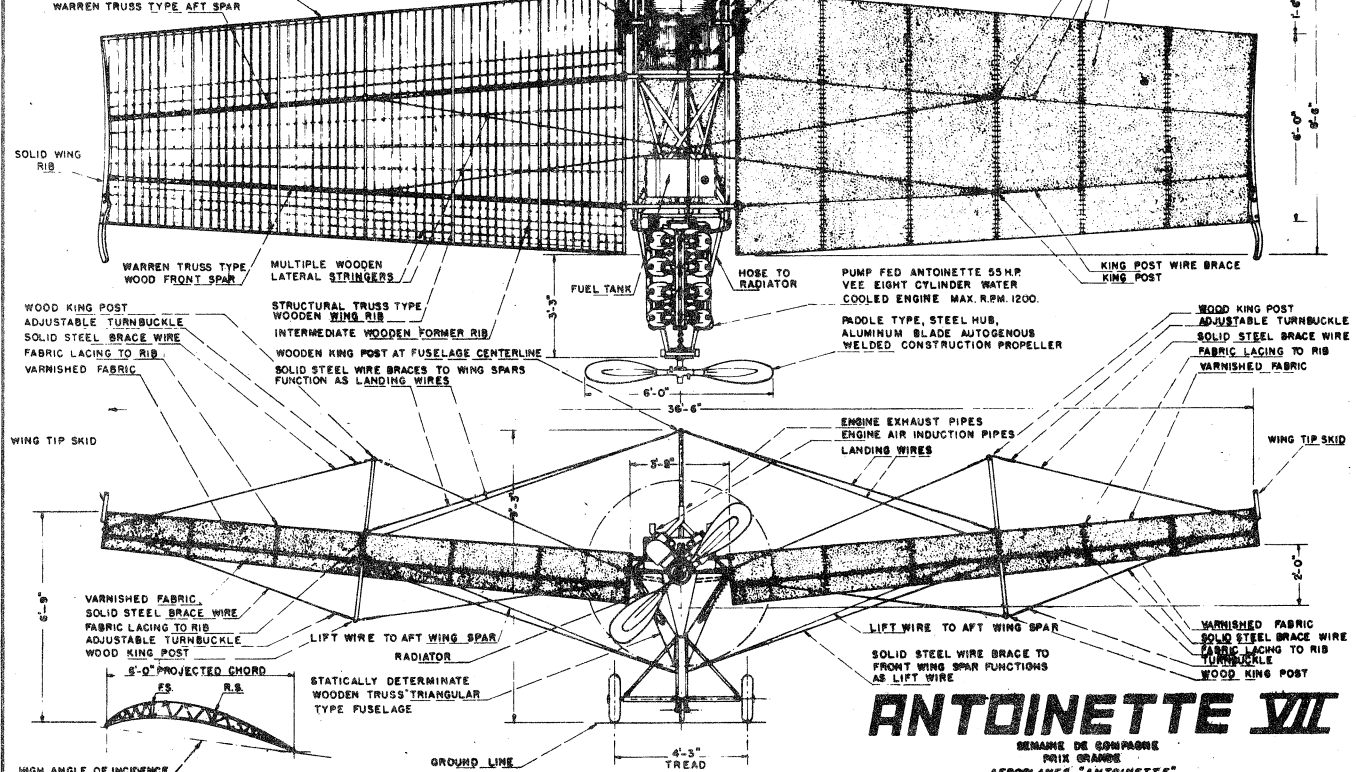


NOTE: THE AUTHOR SAW HUBERT LATHAM FLY OVER THE GOLDEN GATE AT SAN FRANCISCO IN AN ANTOINETTE MONOPLANE IN 1911.



NOTE: LATERAL WING ROCKING MOTION DID NOT EXCEED 10 DEGREES.



THE PROTOTYPE ANTOINETTE MONOPLANE WAS THE ORIGINAL DESIGN OF MR. M. LEVAVASSEUR AND CONSTRUCTED BY MESSRS. GASTAMBIDE AND MENGIN, 1908. THERE WERE 8 DESIGNS BUILT ALL OF WHICH WERE GOOD FLIERS. DESIGNS NO. 4 AND NO. 7 WERE THE MOST POPULAR TYPE. THESE AIRPLANES WERE DECIDED IMPROVEMENTS OVER EXISTING COMPETITIVE TYPES. HUBERT LATHAM PARTICIPATED AT AVIATION EXHIBITIONS IN THE U.S.A.

THE ENGINES USED WERE OF ANTOINETTE DESIGN OF THE VEE-8 OR VEE-16 AIR PUMP-FED TYPE WITH WATER COOLED CYLINDERS. THESE ENGINES WERE OF ADVANCED DESIGN AND A VERY LOW RATIO OF WEIGHT TO H.P. OUTPUT. THE ENGINE WAS STARTED BY MANUAL CRANKING AND THE PROPELLER WAS COUPLED TO IT. THE RADIATOR WAS OF UNUSUAL TYPE. ENGINE R.P.M. WAS 1200.

THE AIRFOIL, DESIGNED TO ACHIEVE MAXIMUM PENETRATION, PRESENTED GOOD FLYING CHARACTERISTICS. THE WING STRUCTURAL CONFIGURATION RESEMBLES MODERN CONSTRUCTION. THE AREA WAS 50 SQ. METERS YET WEIGHED NOT MORE THAN 30 KILOGRAMS. BOTH SURFACES OF THE WING WERE COVERED WITH VARNISHED FABRIC, RUBBERIZED PERGAL, WATERPROOFED. IT WEIGHED 3 OUNCES PER SQUARE METER.

CLIMBING AND DIVING WERE CONTROLLED BY A CONVENTIONAL TYPE ELEVATOR. STEERING WAS CONTROLLED BY A RUDDER. LATERAL STABILITY WAS ACHIEVED BY A MANUALLY CONTROLLED CABLE ACTUATED CONTROL SYSTEM FOR ROCKING THE ENTIRE WING STRUCTURE, ANGULAR MOTION ABOUT THE LONGITUDINAL AXIS, EACH WING BEING DIFFERENTIALLY. THE WING AND RIB STRUCTURAL ELEMENTS WERE STATICALLY DETERMINATE AND THE JOINTS WERE STRENGTHENED BY WOOD BLOCKS AND ALUMINUM GUSSET PLATES. HOWEVER, THE TAIL SURFACES WERE COMPARATIVELY FLIMSY CONSTRUCTION. MAXIMUM SPEED 55 M.P.H.

THE MODELS I AND II FLEW IN 1908. THE MODEL I USED A QUADRICYCLE LANDING GEAR WITH WING WARPING FOR LATERAL CONTROL. MODEL II WAS SIMILAR EXCEPT A BICYCLE LANDING GEAR AND WING BRIDS WERE USED. MODEL III WAS SIMILAR EXCEPT TRIANGULAR ALERONS WERE USED FOR LATERAL CONTROL. MODEL IV WAS SIMILAR EXCEPT TRAPEZOID SHAPED ALERONS WERE USED. THIS TYPE WAS USED BY HUBERT LATHAM IN HIS FIRST ATTEMPT TO FLY THE ENGLISH CHANNEL. MODEL V WAS SIMILAR TO AND AN IMPROVEMENT ON PREVIOUS AIRPLANES. ON MODEL VI, WING WARPING WAS USED AGAIN AND KING POST TYPE WING TRUSS USED FOR WING BRACING. THE MODEL VII WAS USED BY LATHAM ON HIS SECOND ATTEMPT TO FLY THE ENGLISH CHANNEL. MANY "ANTOINETTE" TYPE MONOPLANES WERE USED BY THE FRENCH ARMY. "ANTOINETTE" ALSO DESIGNED AND BUILT THE FIRST LOW WINGED INTERNALLY BRACED MONOPLANE WITH A FAIRED CANTILEVER LANDING GEAR AND FUSELAGE. NO FURTHER PLANES WERE BUILT AFTER 1912. AT ONE TIME THESE AIRPLANES HELD THE WORLD'S DISTANCE AND ALTITUDE RECORDS. THE MAXIMUM AIR RANGE WAS ABOUT 100 MILES.

ANTOINETTE VII
 BREVETE DE CONCEPTION
 PRIX GRANDS
 AEROPLANES "ANTOINETTE"
 PARIS, FRANCE