

AERONAUTICAL MOTORS.

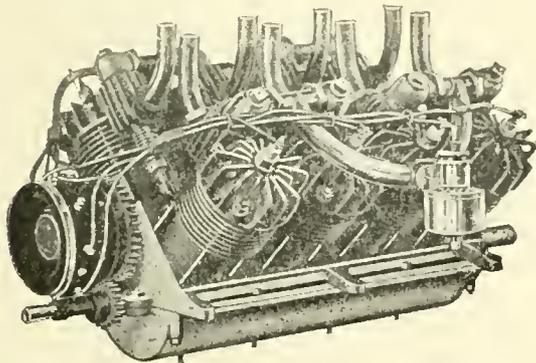
It is intended to publish in each number a description of the various light motors now on the market which are adapted for use in dirigible balloons and heavier-than-air machines.

CURTISS MOTORS.

The G. H. Curtiss Manufacturing Co., Hammondsport, N. Y., foresaw the approaching demand for light and powerful motors and two years ago began to devote a great deal of attention and study to this type of engine.

Having already developed their cycle motors to a high degree of efficiency, they began to experiment with multi-cylinder engines until they brought their present line of engines to the same high standard.

These motors range from 1 to 8 cylinder and from 3 to 100 H. P. They have found that the most practical design of motor for aeronautical work is the 8-cylinder, the cylinders being set at an angle of 90 degrees. The power from such an engine is constant, each explosion stroke commencing when the preceding one is but half over.



A Curtiss Eight-Cylinder Motor.

A 100 H. P. motor now being built will weigh less than 3 pounds to the horsepower. The hollow crank shafts are made of chrome nickel steel. All bearings are ground to size and the boxings are made of a special alloy which is very light and at the same

time extremely strong and durable. The cylinders, pistons and rings are ground to size and are interchangeable. All bolts and studs are made of a special grade of nickel steel, while the aluminum crank case is also made of a special alloy. The ignition is effected by the use of a single jump spark coil and a distributor attached to the commutator. This system is so efficient that only four small dry cells are necessary. The lubrication is by the splash system with two sight feed oilers supplying oil constantly to the case from which compression is relieved through the hollow shaft.

Corporal Edward Ward and Private Joseph E. Barrett have been assigned by the Commander at Fort Wood to the balloon workshop of A. Leo Stevens to study the various processes in the manufacture of the balloons.

Russell E. Gardner, a member of the Aero Club of St. Louis, has recently purchased from Campbell & Honeywell the old balloon "Mars" and has rechristened it at a recent ascent the "St. Louis."

The Real Aero Club de Espana has ordered three balloons from Surcorf for this year's Gordon-Bennett.

CHRONOLOGY OF RECENT EVENTS

May 20. First race of the season for the Aero Club of France, in which fourteen balloons started.

May 24. Walter Wellman leaves London for Spitzbergen. The start for the pole will be made between July 20 and August 10.

May 25. Ten balloons race from Ranelagh for the Harbord Cup, awarded to the competitor descending nearest to a predetermined spot. Won by Mr. Frank H. Butler in his balloon "Dolce Far Niente," making a landing within 100 yards from the mark.

May 30. Lincoln Beachey makes a long flight in his dirigible, near Boston, Mass.