

The anemometer is of the Robinson pattern, and with the wind vane records electrically the direction and velocity of the wind upon the register. The register has three essential parts,—the cylinder, the clock and the electro magnets. A specially ruled sheet is placed upon the cylinder and revolved by means of clock work; the direction of the wind is printed upon the sheet every five minutes, and a mark is made at right angles to the direction of the revolution of the cylinder for each mile of wind, and the number of marks within a given space shows the rate per hour at which the wind is blowing. The sheet placed on the cylinder holds the record for twenty-four hours.

The rain gauge has a circular receiving surface equal to ten square inches. No snow gauge is used, but it is assumed that ten inches of snow equals one inch of rain.

The astronomical equipment is intended specially for the determination of correct time. The transit room is situated on the western side of the building, and the transit telescope is mounted on a substantial brick pier, capped with stone. It is of modern construction by Troughton & Simms, London, has an object glass of two and a half inches diameter, two setting circles attached to the tube, micrometer eye pieces and electric illumination. Observations of stars on the meridian are made with this instrument for the correction of clock errors and rates.

The standard sidereal clock by Victor Kullberg, London, was received at the Observatory in September, 1899. It has a zinc and steel compensated pendulum, similar to the standard sidereal clock of the Royal Observatory, Greenwich, a central steel rod being surrounded to about the middle of its length by a tube of zinc, and then incased by an outer tube of steel. The latter carries the lead bob, which is cylindrical in shape (weighing forty pounds) and suspended at the middle of its height, thus eliminating the temperature changes in the bob itself. This clock is of the best construction, and is fitted with break circuit attachment for operating chronograph. The movement and pendulum are mounted on a solid iron bracket, which is firmly bolted to heavy masonry; the iron base and bracket also carries the case of solid teak. To prevent sudden changes of temperature from affecting the clock, it is enclosed in a closet which is thickly padded with felt.