consists of one drachm of starch, boiled in one ounce of distilled water, to which is added when cold 10 grains of the Iodide of Potassium—this is spread on *sized* paper which is found to answer better than bibulous or *unsized* paper, for the solution is more equally distributed over the surface, whereas on bibulous paper it is very difficult to spread the solution equally. It is cut into slips of about 3 inches long and 5 inches wide—having been previously dried in the dark it is also requisite, to keep it dry and free from light. When required one of these slips is placed 5 feet from the ground and shaded from the sun and rain,—another of these slips of ozone paper is elevated and exposed at an altitude of 80 feet, for the purpose of comparison. It is also well to place slips of this prepared paper in the vicinity of any vegetables, which may be affected with disease, for instance during the prevalence of the potatoe rot.

A *Microscope* and apparatus for the examination of snow crystals and also obtaining copies by the chromotype process, is also provided.

The Electrical Apparatus.—This consists of three parts: a hoisting, a collecting and a receiving apparatus.

The hoisting apparatus consists of a pole or mast 80 feet high. It is in two pieces, but is spliced and bound with hoop iron, and squared or dressed on one face for about six inches. It is dressed in a straight line to receive cross pieces of two-inch plank, 8 inches wide and 12 inches long, which are firmly nailed to the mast or pole about three feet apart; this serves as a ladder to climb the pole in case of necessity. Each of these cross pieces is *rebated* to receive pieces of inch board 4 inches wide, and placed edgeways in the *rebate*, extending from the top to the bottom of the pole, and forms a sort of vertical railway; these pieces are also grooved or rebated to receive a slide, which runs in these grooves and carries the receiving apparatus. From the top of the sliding piece passes a rope over a pulley fixed at the top of the mast, and from it to a roller and windlass, by which means the collecting lantern is raised or lowered for trimming the lamps. It has also been used for the purpose of placing the ozonometer at that height (80 feet.) The lower part of the mast or pole is fixed into a cross piece of heavy timber, and is supported by four stays. These cross timbers are loaded with stones, and are thus rendered sufficiently firm.

The collecting apparatus consists of a copper lantern 3 inches in diameter, 5 inches high. (See top of mast G, fig 1.) The bottom is moveable and the lamp is placed in it by the means of a small copper