

1853.

Table with columns: Month, Temperature (Max, Min, Mean, Range), Wind (Dir, Force, Day, Night), Rain (Inches), Snow (Inches), Frost (Days), and No. of Days (Rain, Snow, Frost, Wind).

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GENERAL ABSTRACT.

Large table with columns: Year, Temperature (Max, Min, Mean, Range), Wind (Dir, Force, Day, Night), Rain (Inches), Snow (Inches), Frost (Days), and No. of Days (Rain, Snow, Frost, Wind).

Proportion of Wind, in the Cardinal Directions, in Miles.

Table showing wind proportions for 1850, 1851, and 1852 across four cardinal directions (North, South, East, West).

Toronto Obsecratory.

Latitude, 43° 50' 25" North. Longitude, 79° 21' 5" West.—Elevation above Lake Ontario, 108 feet.—Approximate elevation above the Sea, 312 feet.

CALCULATED AND ARRANGED FROM THE ORIGINAL OBSERVATIONS AND PRIVATE RECORDS, BY GEORGE JAMES WALKER, ROYAL ARTILLERY.

Plastic Material for Forming various Objects.—Professor Parkin's recommends the following compound for the above purpose:—Five parts of sifted whiting are mixed with a solution of one part of glue. When the whiting is worked up into a paste with the glue, a proportionate quantity of Venetian turpentine is added to it, by which the brittleness of the paste is destroyed. In order to prevent its changing to the hands whilst the Venetian turpentine is being worked into the paste, a small quantity of linseed oil is added from time to time. The mass may also be colored by kneading in any color that may be desired. It may be pressed into shapes, and used for the production of bas-reliefs and other figures, such as animals, &c. It may also be worked by hand into models, during which operation the hands must be rubbed with linseed oil; the mass must also be kept warm during the process. When it cools and dries, which takes place in a few hours, it becomes as hard as stone, and may then be employed for the multiplication of these forms.—Geacred, aus Wertenb.

TINNING IRON.—Articles intended for tinning must first be rendered perfectly clean by immersion for a short time in a bath of 4 lbs. muriatic acid to three gallons of water, exposure for a short time at a red heat, steeping 10 or 12 hours in a dye of bran, and pickling (as it is called) in dilute sulphuric acid for about an hour. They are then rinsed with water, scoured with hemp and sand, and left in a bath of pure water until wanted. These various operations require some experience to manage them rightly. The plates, are then dried by rubbing with bran, and left singly, for about an hour, in pots of melted grease, which should have been slightly burnt. They are then removed

with the grease adhering to them, into the metal bath, consisting of equal parts of block and grain tin, covered with grease, enough to form a layer about 4 inches deep. The bath is heated so as almost to inflame the grease. In about 90 minutes they are taken out, and plunged into another bath of pure grain tin; then rubbed with a peculiar heupen brush, plunged again into the second bath, and finally in a pot of melted tallow. Saucepans are generally tinned by cleaning the inside perfectly, heating the vessel, pouring in some melted tin, and rolling it about, rubbing the tin all over the surface with tow. Powdered resin is used to prevent the formation of oxide.—Artizan.