

CONNECTION BETWEEN SOLAR ACTIVITY AND MAGNETIC
DISTURBANCES, ETC., ON THE EARTH [BY MR.
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In the *Journal* of the British Astronomical Association, 1894, page 83, we find the following succinct statement of observed facts:

Mr. MAUNDER was asked whether the recent extraordinary outbursts of solar activity had been accompanied by corresponding magnetic disturbances and auroræ; and replied "that while the winter of 1891 had been the most prolific in auroræ since 1871, he believed very few had been observed more recently. But with regard to the general connection between sun-spots and magnetic variations, there could be no doubt at all. The curves corresponded closely on the whole, and the mean annual values varied together. But, besides this general correspondence, there was a clear connection between the very greatest solar disturbances and the most violent magnetic storms. * * * * But when we had to do with spots below the rank of the very largest, the connection between them and magnetic storms was not close or clearly traceable at all."

IMPROVEMENT OF THE WATER-SUPPLY AT MOUNT HAMILTON.

The power at Mount Hamilton is derived from the high-service reservoir on the summit of Mount Copernicus (171 feet above the marble floor of the Observatory). This reservoir contains 35,375 gallons, which is not enough water to tide us over the summer months, when there is not sufficient wind to keep the wind-mill at the supply reservoir in operation. Two wooden tanks of 4000 gallons each were added in 1893, and in March, 1894, two more such tanks were placed at the summit of Copernicus. The supply is now 51,000 gallons at the summit, and 60,000 gallons at the lower (wind-mill) reservoir on Huyghens Peak. If all these reservoirs and tanks are full on June 1st, it is probable that we shall have enough water to supply all the present needs for power. Another catchment reservoir for rain-water should be built south of the large dome. It would serve as a fire-protection for the new cottages on Mount Ptolemy and for irrigation of trees and grass. There is enough lost rain-water from the Observatory roofs to fill a very large reservoir every winter.

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