

PHILOSOPHICAL
TRANSACTIONS.

I. *On the effects of temperature on the intensity of magnetic forces; and on the diurnal variation of the terrestrial magnetic intensity.* By SAMUEL HUNTER CHRISTIE, Esq. M. A. of Trinity College, Cambridge, Fellow of the Cambridge Philosophical Society: of the Royal Military Academy. Communicated by the President

Read June 17, 1824.

IN the paper on the diurnal deviations of the horizontal needle when under the influence of magnets, which the President did me the honour to present, I stated that these deviations were partly the effects of changes that took place in the temperature of the magnets; and that although the conclusions which I drew from the observations respecting the increase and decrease of the terrestrial magnetic forces during the day would not be materially affected, it was my intention to undertake a series of experiments for the purpose of determining the precise effects of changes of temperature in the magnets, so as to be able to free the observations entirely from such effects.

These experiments were immediately made; but I was induced from some effects which I observed, to carry them to

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