On a new compensated ballistic method for magnetic measurements, with a preliminary note on the magnetic behaviour of nickel in the form of powder under different physical stimuli.—*By* PRASANTA CHANDRA MAHALANO-BIS, AND SASANKHA SEKHAR MUKERJI.

In a magnetic field (H) the resultant induction is given by, $B = H + 4 \pi I - N$, where $(4 \pi I - N)$ is the flux due to the special advantage of the present method is due to the fact that H, the flux due to the original field is automatically compensated for by a novel arrangement of certain subsidiary coils. Thus, in the absence of the specimen, there is absolutely no throw in the galvanometer, for all values of the field, H. Hence, after the specimen is introduced in the field, the throw of the ballistic galvanometer gives a direct measurement of the flux due to the specimen.

With the above arrangement, the magnetic properties of Nickel in the form of powder are being studied. When the specimen is mechanically vibrated (with varying frequency, by means of an electrically maintained tuning-fork) certain very interesting peculiarities are noticed.