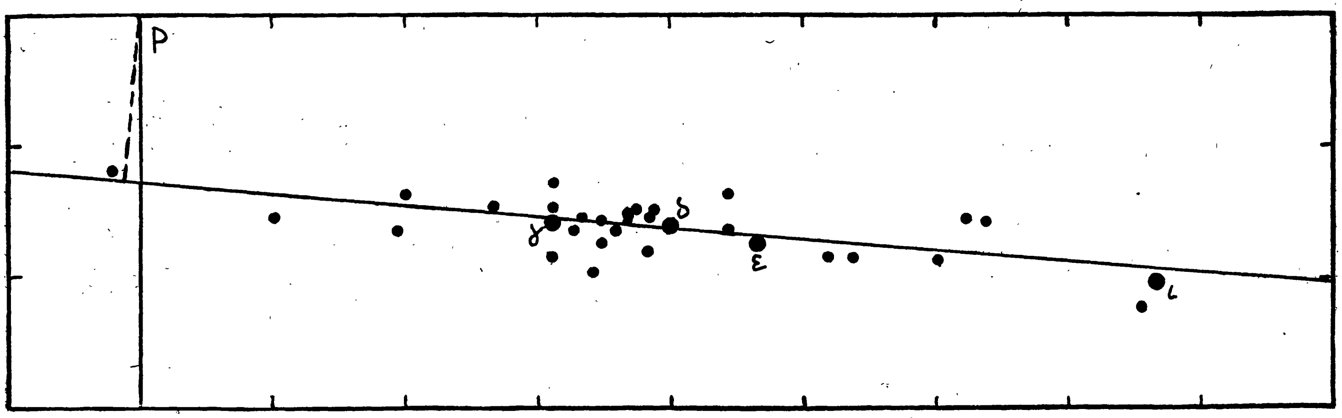
5304, 5430 and 6158 (γ, δ, ε and ι Tauri) are fundamental stars, the proper motions of which have been determined most accurately. The co-ordinates of the point, marked with a cross in Figure 1, for which $\Sigma \sin^2 s$ = min. for these four stars, are $A = 95^\circ{\cdot}47$, $D = +7^\circ{\cdot}17$, while the corresponding straight line on the projection described above gives $A = 95^\circ{\cdot}81$, $D = +7^\circ{\cdot}04$.

The conclusion is that in the system of the G.C. the most probable co-ordinates of the point of convergence of the Hyades are $A = 95^\circ{\cdot}0$ and $D = +7^\circ{\cdot}3$. In the position angle ϑ the square of the mean error of this position is in square degrees:

$$1{\cdot}325 \sin^2(\vartheta - 21^\circ{\cdot}36) + {\cdot}025 \cos^2(\vartheta - 21^\circ{\cdot}36)$$

FIGURE 2.



On the symmetrical rejection of extreme observations, by *Ejnar Hertzsprung*.

The question forming the object of the present note was encountered in the course of the deduction of relative proper motions of stars in the Pleiades, as determined by the aid of up to about 50 pairs of old and new plates. Different weights were assigned to the individual values of the relative proper motions found from each pair of plates, whereby the intensity of the images measured was also taken into account. Nevertheless, as the images also for other, neglected, reasons are of different quality the relative weights assigned to the individual values are not correct. The question therefore arises whether a treatment of the available material other than the orthodox one can be found, which would increase the weight of the final result as compared with the ordinary weighted mean.

The simplest way to deal with exorbitant observations is to reject them. In order to avoid special rules for onesided rejection the easy way of symmetrical rejection of the largest deviations to each side may be considered. The first question is then: How much is, in the case of Gaussian distribution of errors, the weight of the result diminished by a priori symmetrical rejection of outstanding observations? As the mathematical treatment of this question appears to be laborious beyond the needs mentioned above I gave preference to an empirical answer. On each of 12534 slips of paper was written with two decimals a deviation from zero in units of the mean error, in such a way that these deviations showed a Gaussian distribution. Thus 50 slips were marked with ·00, 50 with + ·01, 50 with — ·01 etc. Of these slips somewhat more than 1000 times 24 were picked out arbitrarily. Such 24 slips were in each case arranged according to the size of the deviation and mean squares of the sums of $24 - x$ deviations calculated after symmetrical rejection of $x = 0, 2, 4 \cdots 22$ extreme values. Of all these samples of 24 exactly 1000 were picked out in such a way that the sum of all 24 deviations ($x = 0$) fairly well showed a Gaussian distribution with a mean square of 24. The results are

x	$\frac{(\text{m.e.})^2_{24-x}}{(\text{m.e.})^2_{24}}$	x	$\frac{(\text{m.e.})^2_{24-x}}{(\text{m.e.})^2_{24}}$
0	1·000	12	1·184
2	1·013	14	1·232
4	1·037	16	1·283
6	1·069	18	1·345
8	1·095	20	1·407
10	1·139	22	1·489

While the cancelling of two arbitrary observations out of 24 diminishes the weight from 24 to 22 the