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The articles, of which summaries follow below, have been published in the Dutch language in „Verslag van de gewone vergadering der Afdeeling Natuurkunde” of January 30th. 1943, Vol. LII, No. 1.

Les articles dont les résumés suivent ci-dessus, ont été publiées en langue néerlandaise dans le „Verslag van de gewone vergadering der Afdeeling Natuurkunde” du 30 janvier 1943, Tome LII, No. 1.

**Physics.** — ITERSON, F. K. TH. VAN: *Contribution to the plasticity-theory*, p. 5.

In the so-called plane- or two dimensional problems of plasticity the principal stress, normal to the section under consideration must be taken into account. We can never leave out of mind the fact that plastic flow occurs in consequence of three dimensional stress only.

When we calculate the shearing and normal stresses on the eight faces of an elemental octahedron, disposed with its axes in the principal directions, we obtain the first two expressions given in our communication.

As soon as the shearing stress which is a function of the principal stress-differences only, attains the value  $\tau = \frac{\sigma_v}{3}\sqrt{2}$ , or the elongation caused by the shearing stresses attains the value  $\varepsilon = \frac{\sigma_v}{G}$ , or the distortion energy  $A'' = \frac{\sigma_v^2}{6G}$ , plastic flow sets in ( $\sigma_v$  is the elastic or flow limit).

Often in plane or in rotatory we want an equation in order to determine the principal stress normal to the section under consideration. We prove that in this case that stress adjusts itself to one of the two other principal stresses, so that two of the three stresses are equal.

With this knowledge we can proceed to the solving of many problems of plastic flow.

**Physique.** — ITERSON, F. K. TH. VAN: *Contribution à la théorie de la plasticité*, p. 5.

Dans les problèmes plans ou à deux dimensions il faut, pour le calcul des tensions régnant pendant la déformation, tenir compte de la tension