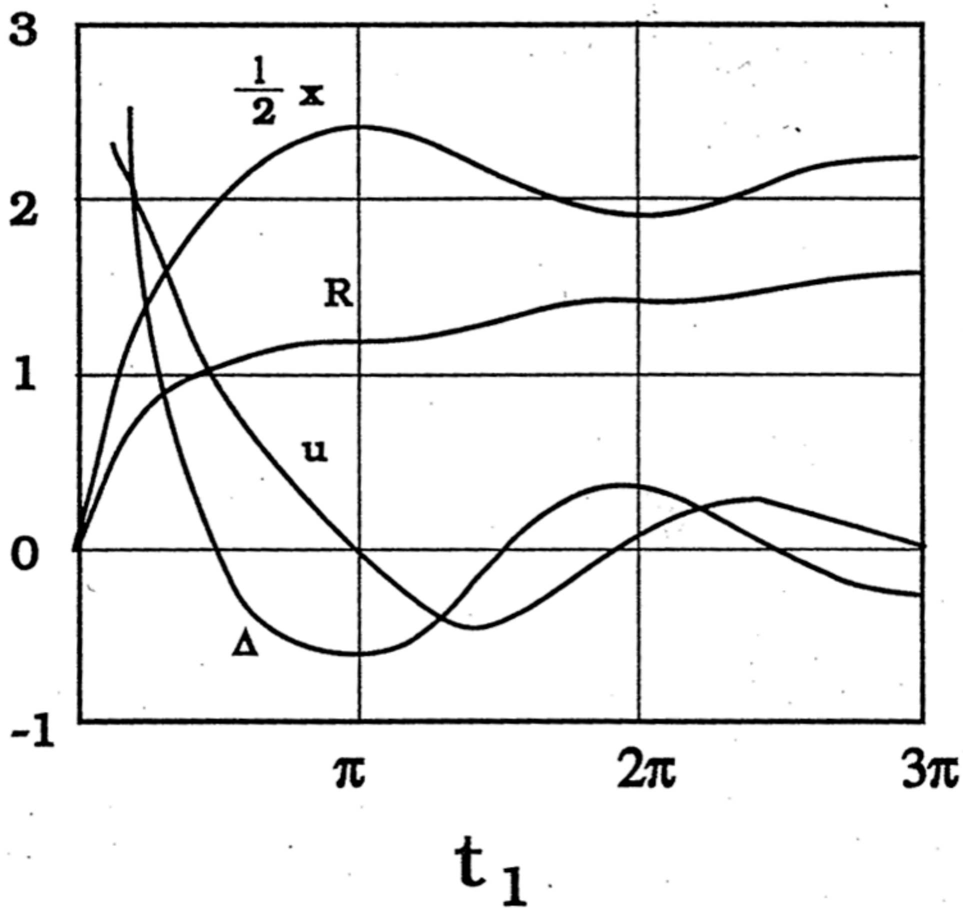


**Fig. 2.8** The solutions for the dimensionless radius ($R$), height ($x$), buoyancy ($\Delta$), and vertical velocity ($u$) of a thermal in a uniform stably stratified fluid. [*(From Morton, Taylor, and Turner (1956).*]

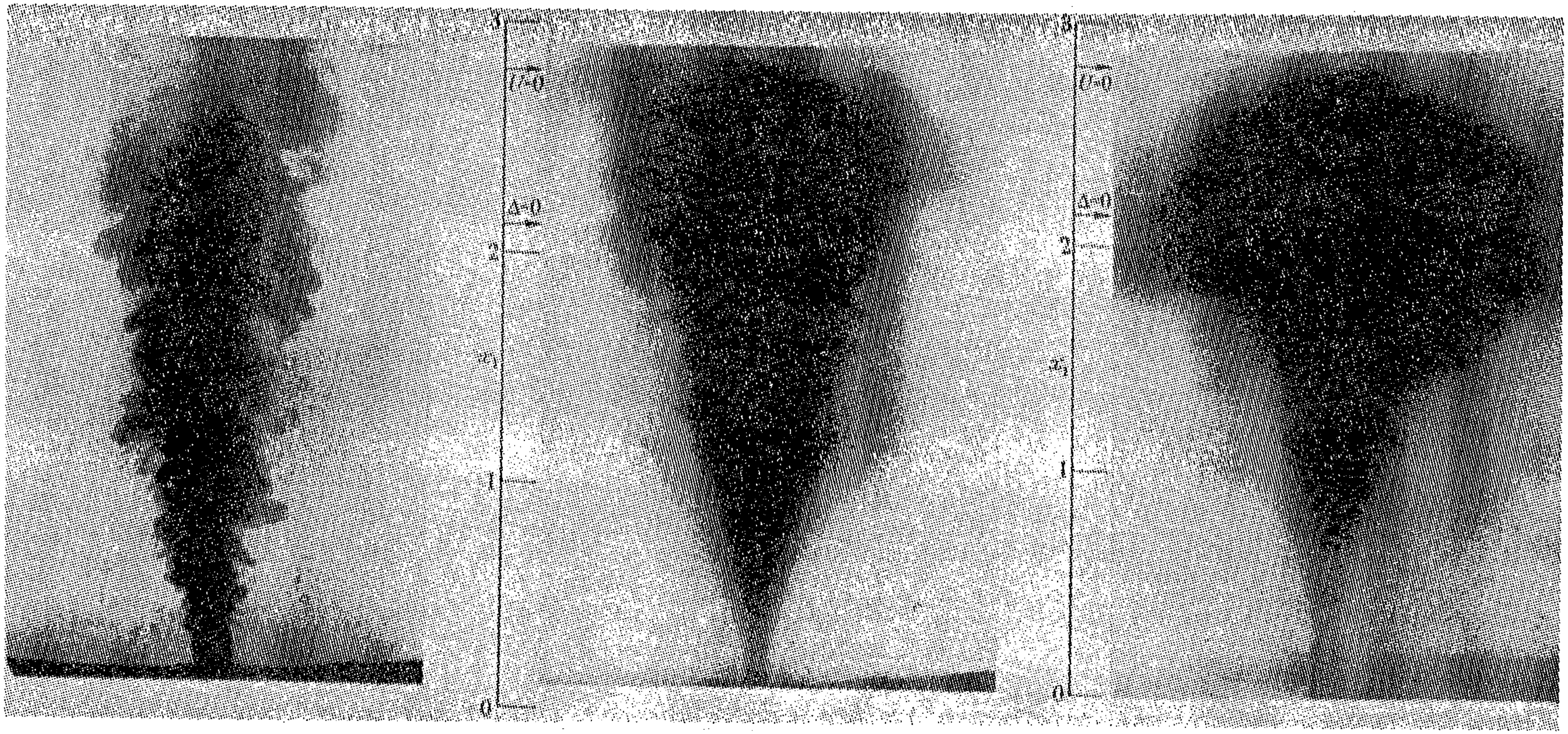

**Fig. 2.9** Photographs of plumes in neutrally and stably stratified fluids. At left is a plume in a neutrally stratified ambient fluid; at right are time exposures of a plume in a stable stratified fluid at early and late stages in its development. [*From Morton, Taylor, and Turner (1956).*]

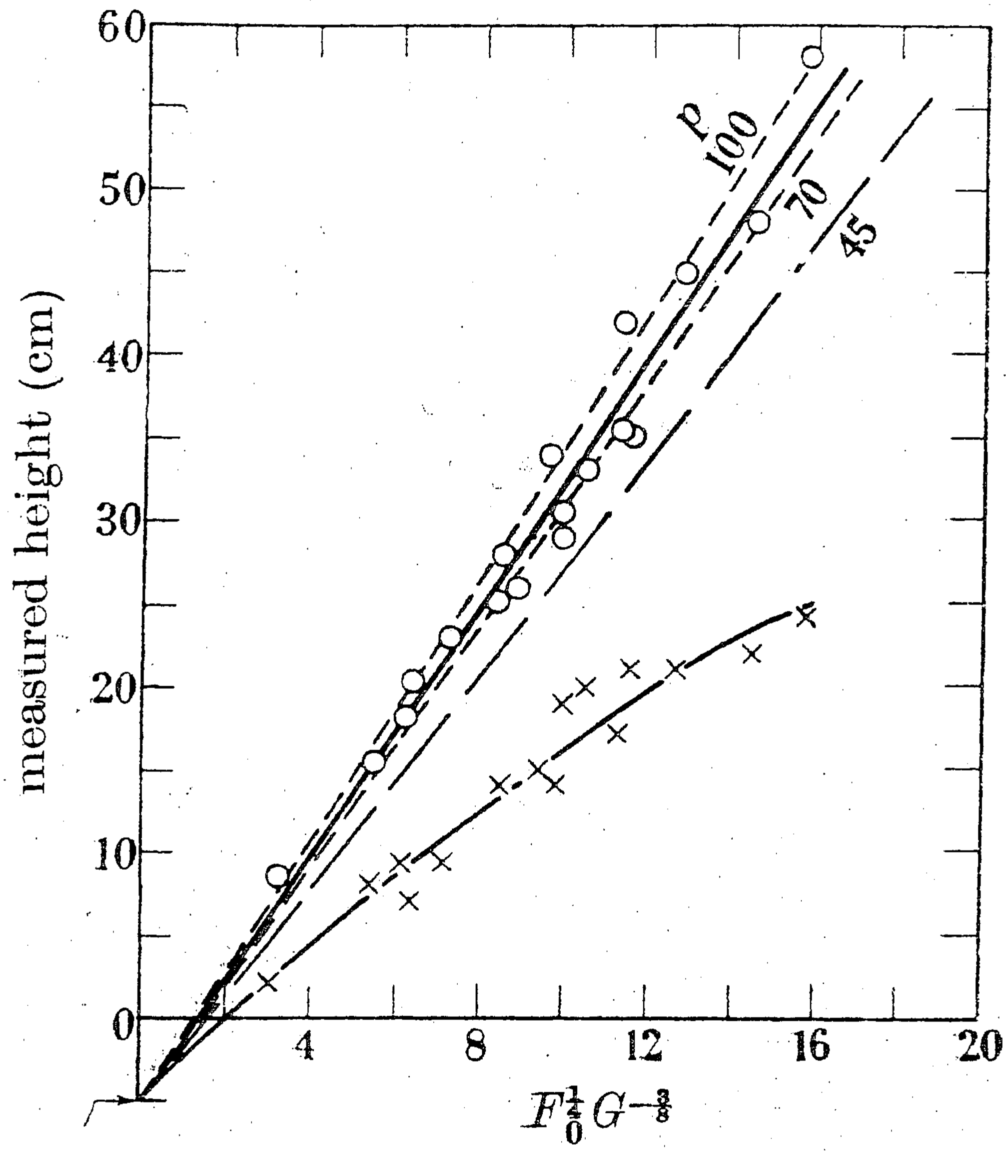


**Fig. 2.10** Experimentally determined heights of maintained plumes in a stably stratified environment. The heights are plotted against $F_0^{1/4} N^{-3/4}$ ($G \equiv N^2$ in this figure); the theoretical dependences are indicated by straight lines and correspond to various values of $p$ in the radial dependence $\exp(-pr^2/z^2)$. The solid line is the best fit and corresponds to $p = 80$ ($\alpha = 0.093$). [*From Morton, Taylor, and Turner (1956).*]

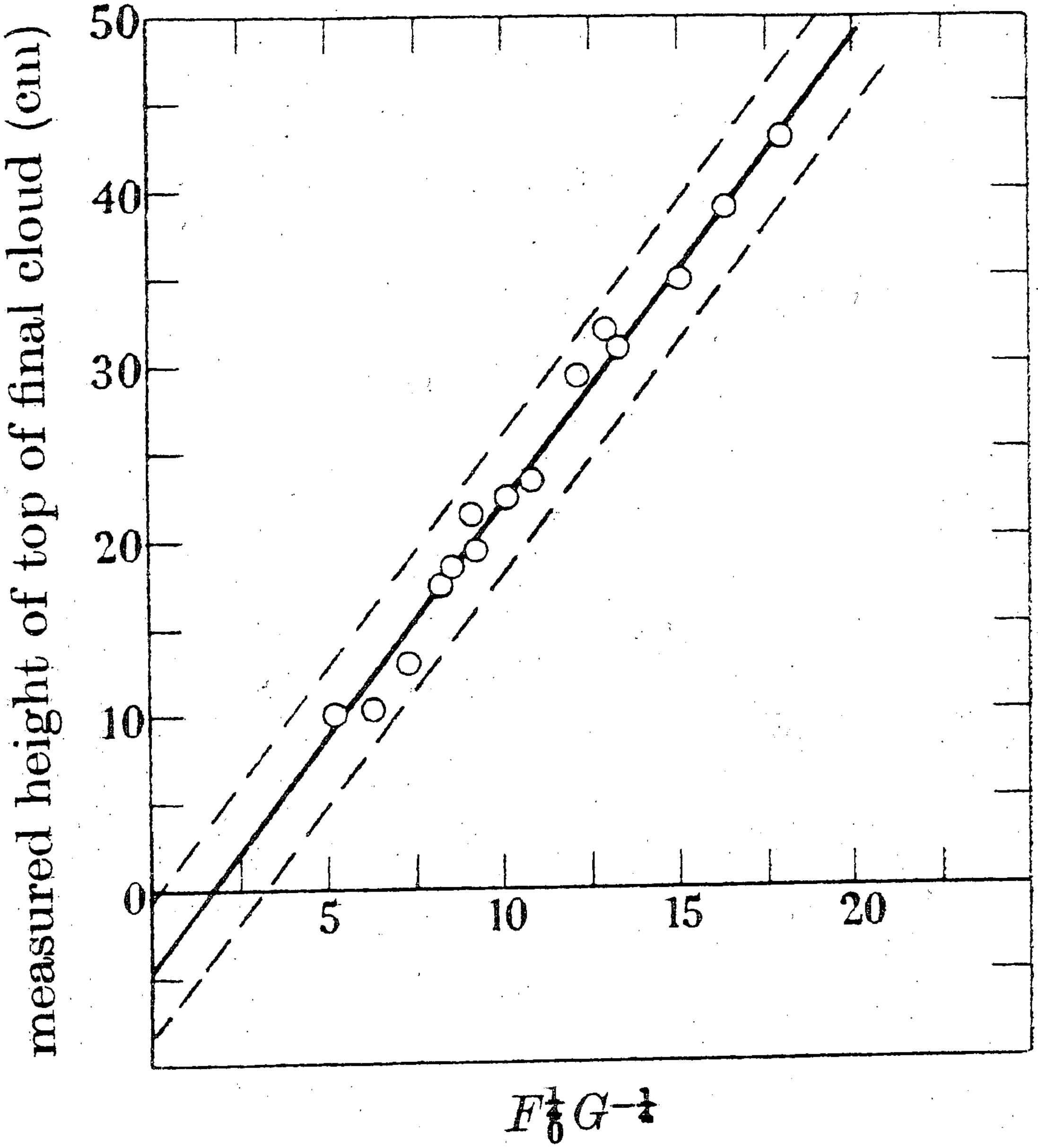


**Fig. 2.11** Measurements of the final height above the release point of a buoyant thermal in a stably stratified ambient fluid. The linear regression line is drawn in and the dashed lines represent twice the standard deviation. ($G \equiv N^2$ in this figure.) [*From Morton, Taylor, and Turner (1956).*]

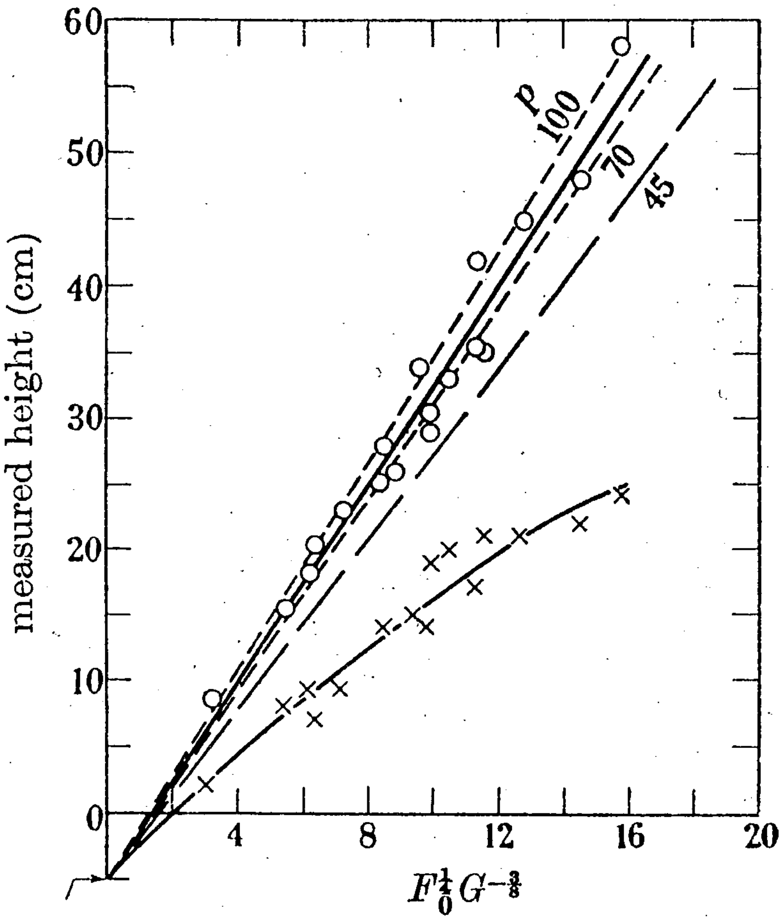


**Fig. 2.10** Experimentally determined heights of maintained plumes in a stably stratified environment. The heights are plotted against $F_0^{1/4} N^{-3/4}$ ($G \equiv N^2$ in this figure); the theoretical dependences are indicated by straight lines and correspond to various values of $p$ in the radial dependence $\exp(-pr^2/z^2)$. The solid line is the best fit and corresponds to $p = 80$ ($\alpha = 0.093$). [*From Morton, Taylor, and Turner (1956).*]

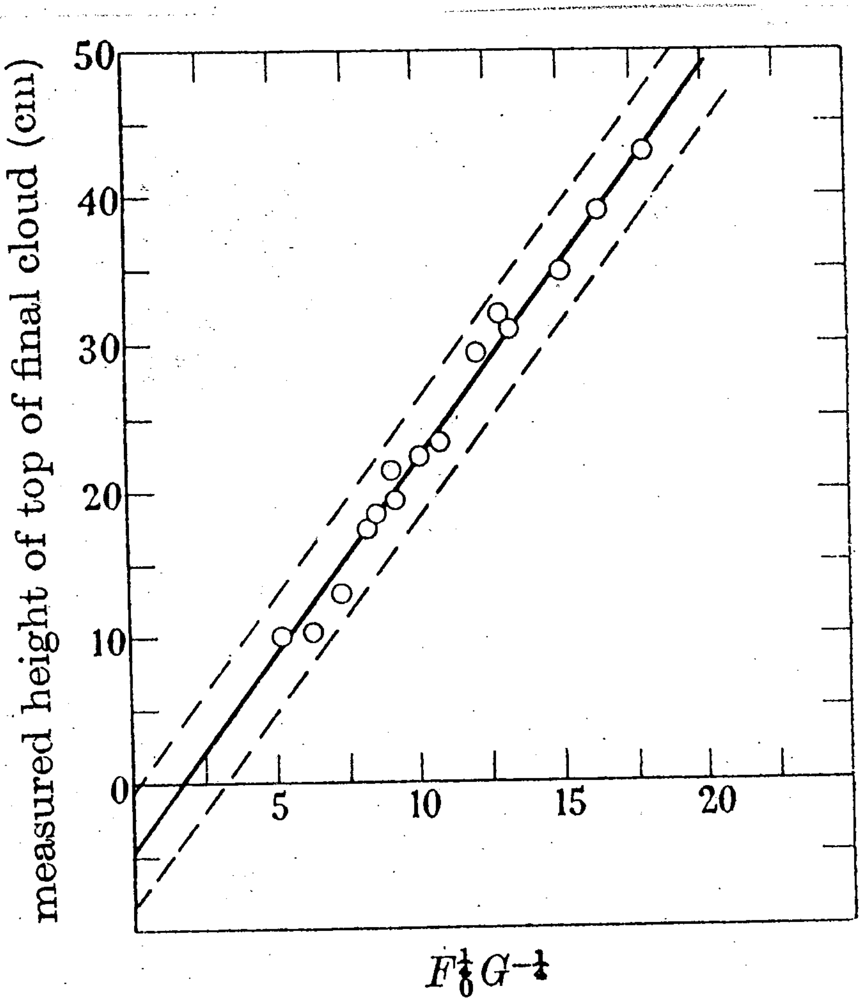


**Fig. 2.11** Measurements of the final height above the release point of a buoyant thermal in a stably stratified ambient fluid. The linear regression line is drawn in and the dashed lines represent twice the standard deviation. ($G \equiv N^2$ in this figure.) [*From Morton, Taylor, and Turner (1956).*]

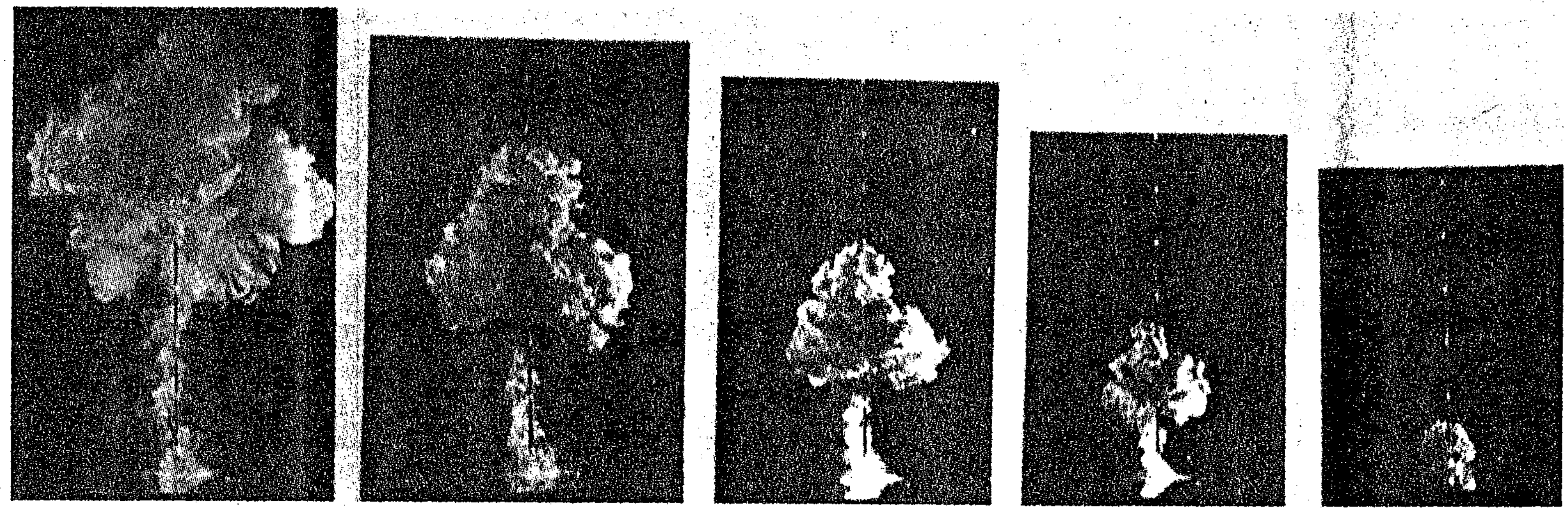

**Fig. 2.14** Successive photographs of a descending thermal, showing that the shape of the thermal may persist while the volume increases several times [*From Scorer (1957).*]

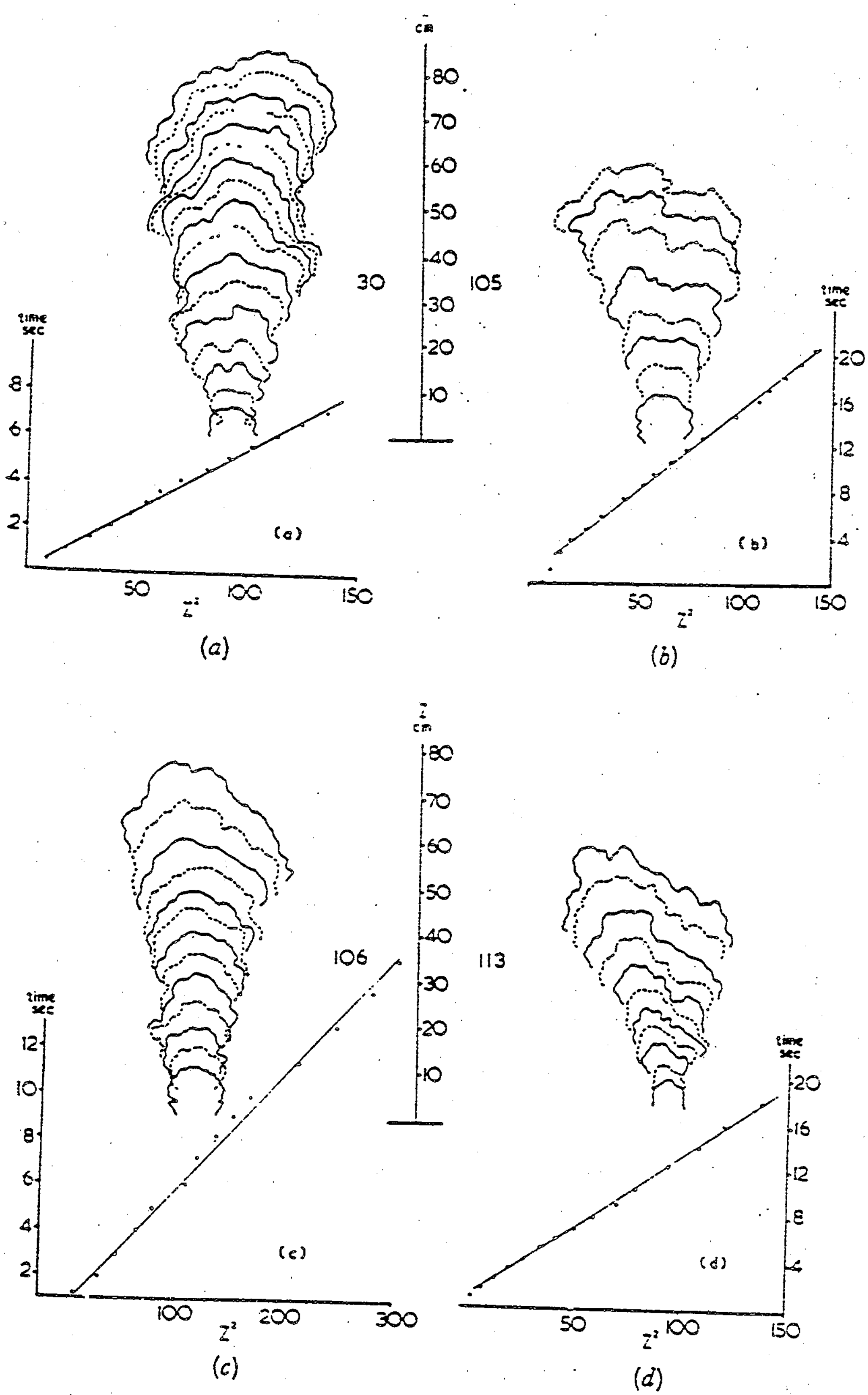


**Fig. 2.15** Successive outlines of thermals traced from photographs. Below each is a graph of $z^2$ against $t$. [*From Scorer (1957).*]

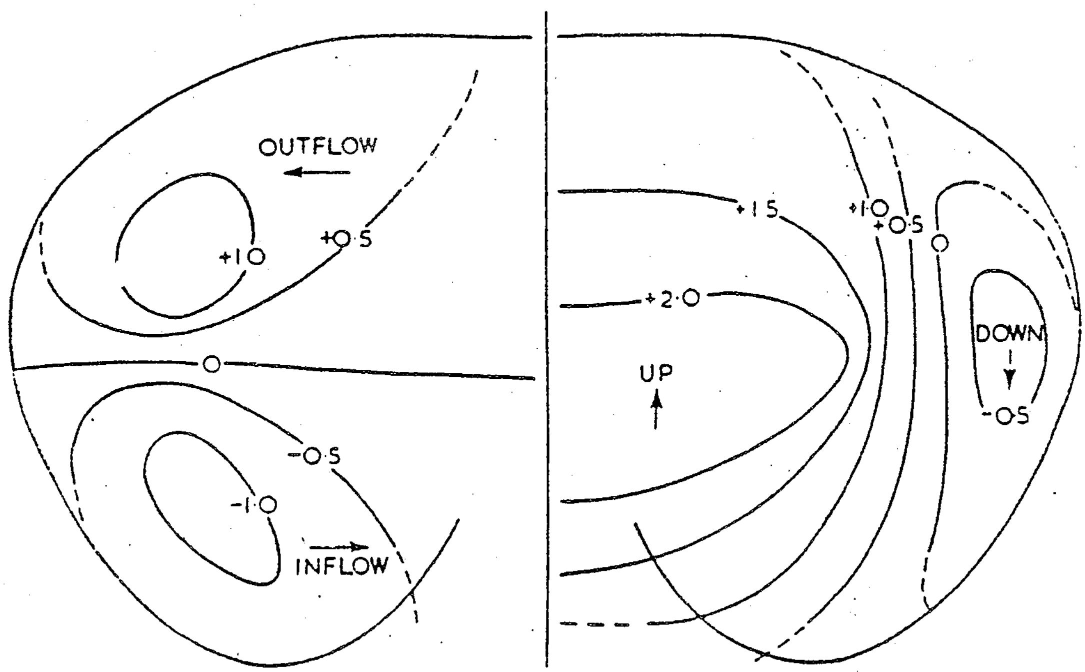


**Fig. 2.16** The distribution of radial (left) and vertical (right) velocities in a thermal obtained by observing the motion of particles within a thermal. Velocities expressed as multiples of the thermal ascent rate. [*From Scorer (1957).*]