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The mutant alleles of the dumpy locus produce a number of phenotypic effects (see Carlson¹), one of which is the production of hypodermal irregularities of the thorax. Three irregularities have been previously described. They have the form of depressions (pits) or protrusions of cuticle on the scutum with characteristic disturbances in the pattern of the local microchaetae.

Observations on a dumpy stock have revealed another two irregularities:

HYPODERMAL IRREGULARITY	POSITION ON THORAX	ORIGINAL AUTHOR
first vortex	posterior lateral region of the scutum	Bridges & Mohr (2)
second vortex	anterior lateral region of the scutum	Bridges & Mohr (2)
comma	anterior medial region of the scutum	Bridges & Morgan (3)
pre-episternal pit (fig.1)	pre-episternal plate just anterior to the sternopleural setae	Metcalf (this report)
posterior pit (fig.2)	lateral edge of the postnotum plate	Metcalf (this report)

The pre-episternal pit and posterior pit also show variations in expression, forming usually curved pits (fig.2) or rarely protrusions (fig.1). Owing to their positions, unlike the other irregularities, they do not involve changes in the pattern of microchaetae.

Observations on the developmental history of the five hypodermal irregularities are to be reported elsewhere.

References: 1. Carlson, E. A., 1959. Genetics, 44: 349.

2. Bridges, C. B. and Mohr, O. L., 1919. Genetics, 4: 283

3. Bridges, C. B., and Morgan, T. H., 1919. Contributions to genetics of *Drosophila melanogaster*, Carnegie Institute of Washington.

(These observations were made during an S.R.C. postgraduate studentship at the University of Newcastle-upon-Tyne.)

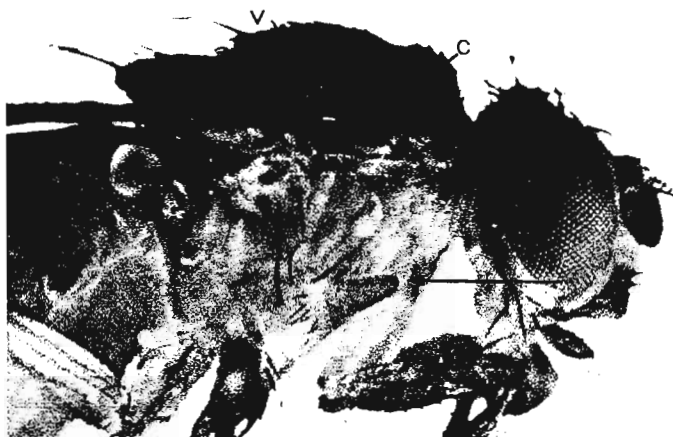


Figure 1 Pre-episternal pit erupted to form a protrusion (←) A first vortex (v) and comma (c) are also present.



Figure 2 Posterior pit (←) A first vortex (v) and comma (c) are also present.