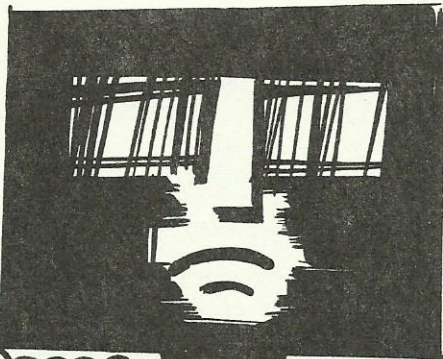
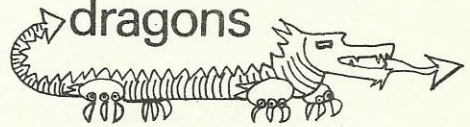


What Killed Ned Kelly

and other
problematical
dragons



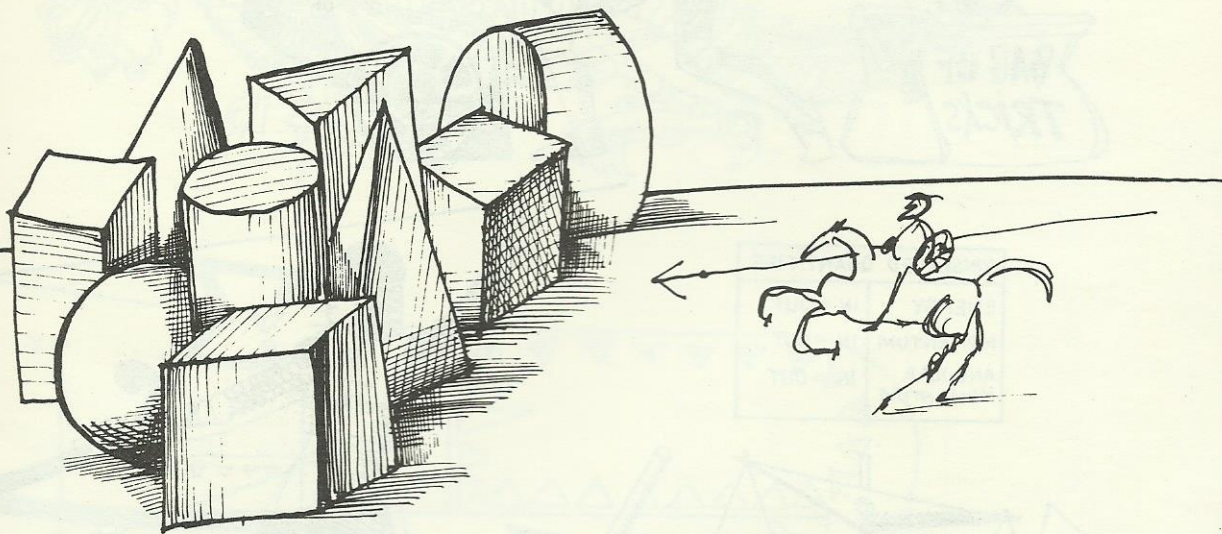
DR. H.A. COHEN

Preface

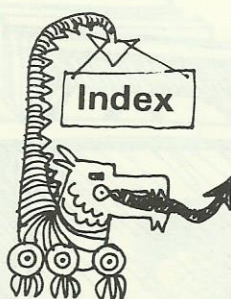
The problems contained in this collection differ by far more than illustrative devices from those usually submitted to matriculation/early university students of applied mathematics: the free typographic treatment entails a distinct approach and a new emphasis in applied mathematics teaching. Essentially, the lectures and tutorials at La Trobe University which this little book complements are meant to be open and enquiry oriented - to promote extensive rather than intensive patterns of mathematical thought. Thus an effort has been made to devise problems that are open in form: such problems do not possess a unique and delimited right answer, but should serve to stimulate a certain pattern of enquiry and range of analysis.

The writer believes that there are three distinct skills to be acquired from a course in applied mathematics. In the first place there is the ability to formalise and abstract a given problemmatical situation: to identify the relevant components, to abstract the intrinsic form, to construct a mathematical model - or to recognise the relevance of a previously constructed model. The second, rather technical skill, is the ability to manipulate the purely mathematical elements of the mathematical model for some problem. The third skill is the ability to relate the mode of solution of the mathematical model back to the problem situation. Surprisingly little direct effort is made in traditional mathematical training to develop the first and third skills. I would argue moreover that elementary mechanics provides an ideal field for the young mathematician to develop these comprehensive skills. Thus "Ned Kelly" embodies a measure of educational philosophy which I trust the happy experiences of the reader will justify.

Harvey A. Cohen.



The Tyro, the earnest beginner in the chivalrous codex of dynamica, must first joust with well defined mathematical models of physical systems. Thus he sharpens his skills, his native wits, his analytic perception, his physical intuition, his mathematical sophistication - all the time gaining a better understanding of the rules of the game as discovered by Newton and the other great Knights. But what then



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Kelly



THE END



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PHOTO
J. Davis

The author belayed by Mr. Graham Hill, of the South Australian Climbing Club, just below the crux of Agamemnon, a chimney climb on Mt. Arapiles, Victoria. In the background is part of the Little Desert.

(Agamemnon, a Royal Mycenaean Dragon, was treacherously slain by his fickle mate, Clytemnestra. {Or was he? Or was it Conundrum?})

Illustrations

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