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Mining Subsidence Engineering

Translated by R. F. S. Fleming

With 380 Figures

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Preface

This book originally appeared in German in 1974, under the title “Bergschadenkunde” (mining subsidence engineering), and then in Russian in 1978, published by Nedra of Moscow. When the German edition was almost out of print, Springer-Verlag decided to bring out a new edition, this time in English. For this English version the text has been thoroughly revised, enlarged, and supplemented by over 100 new figures.

The book deals with the current state of international knowledge on strata and ground movement over mine workings, with its damaging effects on mine shafts and the land surface, and with measures for regulating mining damage in law and reducing it in practice. Discussion begins with the mine excavation underground – the cause – and ends with the damage to surface structures – the effect. Methods of roof control, including the subject of rock bursts, are not discussed, since that is a field concerned more with the safety of underground workings than with minimizing damage at the surface. Of the 500 literature references in the German edition, only the more important for an international readership have been retained, but no value judgement on the many publications not mentioned should be read into this.

The book is principally intended as a working aid for the mine surveyor, the mining engineer, the architect, and the civil engineer. For the student and the post-graduate researcher, it offers a summary and guide to this whole field of knowledge. In addition, it should provide a rapid survey of this special field for those who are temporarily concerned with mining damage – in law, for example, or in town planning, or as landowners.

To translate the German text for this English edition, the publishers were able to secure the services of Mr. Richard F. S. Fleming in London, who, as a well-known translator for publishers of technical journals and books in the mining field, was particularly well qualified to provide an accurate English rendering both of the specialized mining terms and of the difficult technical discussion. Thus, in two years of conscientious translating, an English technical manual has been produced which faithfully reflects the now revised and enlarged German original. For this, and for his close collaboration, I am greatly indebted to Mr. Fleming. The new figures have again been drawn by Mr. Horst

Conrad, who also designed the cover. Many colleagues and many technical experts abroad, above all in Poland and Britain, have given me their advice and assistance on special aspects. I thank them all, and not least the publishers, who have all along advanced the project with great energy, for their valuable assistance.

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Helmut Kratzsch

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