

**MANUAL OF HYDRAULIC
MINING: FOR THE USE OF
THE PRACTICAL MINER**

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Manual of Hydraulic Mining: For the Use of the Practical Miner by T. F. Van Wagenen

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THE PRACTICAL MINER.

BY
T. F. VAN WAGENEN, E.M.

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V33 PREFACE.

THE following pages are written solely for the use of the practical and working miner, who, while rarely deficient in common sense, is generally unacquainted with the principles of physics and more or less rusty in arithmetical methods. In the daily discharge of his business he is continually confronted with engineering problems of more or less complexity, and compelled to depend for their solution—trained engineering advice being unobtainable or too expensive—upon his own limited experience or upon that of his co-laborers.

Under these circumstances, errors in construction and operation are frequently repeated. The author ventures the hope that the study and use of the following pages will, to some extent at least, obviate the necessity for costly experimenting, now so common.

The Manual does not claim to cover the whole subject, nor to answer all questions in hydraulic engineering. Nor will it take the place of an experienced and competent engineer in important enterprises. On the contrary, no miner who is not himself an expert, and who can afford it, should be without such advice and assistance as can be afforded by a well-educated and practised hydraulic engineer.

THEO. F. VAN WAGENEN.

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INTRODUCTORY REMARKS.

HYDRAULIC mining is the art of separating gold from gravel, sand, and clay cement, through the medium of moving water and the force of gravity.

The process is one lying wholly within the domain of the science of mechanics—a branch of human knowledge now so well understood that results may be predicated with extreme accuracy, if correct premises are obtained.

Hence, hydraulic mining presents fewer risks and more certainties than any other department of mining, other things being equal. It is simply a question of moving gravel or soil from one place to another. Given, therefore, in addition to an abundance of water to move and wash the gravel, ample space to deposit it again after it has been washed, and the problem of obtaining a profit is reduced to a minimum.