

**CRYPTOGRAPHY: OR, THE
HISTORY, PRINCIPLES,
AND PRACTICE OF
CIPHER-WRITING**

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Cryptography: or, The history, principles, and practice of cipher-writing by F. Edward Hulme

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F. EDWARD HULME

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CHAPTER I

Meaning of cryptography—Objections to its study—Its legitimate use and value—Historic examples of its employment—Delight in the mysterious—Many other ways of conveying secret information—Symbolism of action—The spoken word imprisoned and dispatched—A matter not necessarily secret because one cannot understand it—Egyptian hieroglyphics—Chinese characters—Indian mutiny Greek—Ancient Biblical cryptogram—Sheshach of Jeremiah—Sir Henry Rawlinson thereon—Statements for and against—Julius Cæsar's secret code—The waxed tablet of Demaratus—Difference between hidden and secret writing—The shaven head a writing tablet—Charlemagne and Alfred the Great as cryptographic experts—Mediæval authorities—Trithemius the Benedictine—"Steganographia"—Dabbling in the black art—Dr. Dee—Batista Porta's book on "Natural Magic"—Invisible writing—Chemical methods by vitriol, alum, etc.—Writing on glass or crystal—Papal Inquisition—Disappearing writing—Messages wrapped round rollers—Two methods—A slave's back the writing surface—Chemical methods of no great value ordinarily—Disadvantages of use—Action of light and heat—Chloride of cobalt, sulphate of copper, etc.—Often impossible to procure the materials.

THE word Cryptography is derived from the two Greek words *kryptos* and *grapho*, the first signifying that which is concealed

or hidden, and the second meaning to write or describe, and it is in brief the conveying in a secret manner of any intelligence we may desire to communicate.

It may at once occur to our readers as an objection to the study of cryptography that it is an art that may palpably be very readily adapted to evil purpose, and that in doing anything to facilitate its study we are placing a weapon in the hands of the ill-disposed. This is an argument, however, that applies equally to many studies that nevertheless are of great value. Astronomy may in evil hands become astrology, and the glorious stars themselves mere counters for the fortune-teller; while from the researches of chemistry may be derived the valuable dye, the healing medicine, or other beneficent discovery, or it, equally readily, may be perverted to supply the arsenal of the *dynamitard* or the subtle potion of the secret poisoner. Moreover, even if we regard cryptography as affording means