

To the uninitiated it may appear that the daily life of the professional code expert is one succession of thrilling episodes and startling exposures. Little is heard of the days, weeks, even months of tedious, patient labor that he expends on a single case - often fruitless in its results. For to boast of an ability to unravel any cryptogram whatsoever may at once be taken as an indication that the one having the hardihood to make such a boast has a great deal yet to learn of the subject. It is true that Edgar Allan Poe declared, without any reservations whatsoever, that "human ingenuity cannot concoct a cipher which human ingenuity cannot resolve"; but if a careful investigation of Poe's qualifications and ability as a cipher expert be made, and if an inquiry into the record of his achievements in solving really complex cryptograms be undertaken, it will be found that neither by actual experience nor by virtue of a wide, theoretical knowledge of the subject was Poe really warranted in making the declaration in the form he did. Indeed, to the unbiased student of the subject it will soon appear that in cryptography, as in the other scientific subjects upon which he wrote so glibly, Poe somewhat overestimated the amount, accuracy, and value of the information he possessed. But lest I seem to act the part of a carping critic, let me hasten to add that compared with the amount of information on cryptography possessed by the great majority of intelligent people during his time, or even today, Poe's knowledge of the subject is worthy of notice, if not surprise.

One unfamiliar with the tedious and exhausting labor that is the lot of the cryptographer can have no adequate idea of the part that patience and a

determination to succeed play in the solution of complex cryptograms. Fortunately, however, not all cryptograms are extremely difficult, and many are exceedingly simple, even in cases where complicated systems of cryptography might be expected to be encountered. An amusing experience, not without its thrill, may illustrate such a case.

On a particularly dark and dismal morning not so long ago, while in the midst of an extended and involved bit of analysis that unexpectedly seemed to offer hope, the telephone rang.

"Inspector G--- calling, sir".

"Tell him I'll call him back in an hour, I don't want to lose the thread of this", I directed.

"Pardon, sir, but the inspector says it's very urgent, and he's sending Captain B--- right down".

"All right. Maybe I'll be finished with this calculation by the time he arrives".

In about fifteen minutes there was a knock. Captain B--- and Detective K--- entered. They were in a state of great excitement. The Captain spoke rapidly.

"Here's the layout. For some time past we've been on the track of a gang of international smugglers working on the ----- border. Liquor, dope, aliens, 'n' so on. The slickest outfit we've ever run into, and the most dangerous. They don't stop at anything - but we've never had the goods on 'em. At least until now. Two days ago one of our men who was shadowing a woman mixed up with the gang saw her drop a letter into a mail box. Post office turned it over to him on his request. He sent it on special de-

livery and it just arrived. Here it is, and it's addressed to the ring leader. We're sure it has valuable information, but nobody down at headquarters can make head or tail out of it because it's in code. The inspector says it's now up to you to make good on your reputation, an' he's gettin' ready to close in on 'em right away, because he's sure this code'll give him the right lead. We need speed an' lots of it".

I reached for the paper. A quick glance told me that the cipher - for that's what it was, and not a code message (there's a lot of difference) - was of a simple variety.

"Well, I think I can read it. Come back in half an hour", I said. "But before you go, let me have the names of the most important members of the gang".

As soon as the two men from headquarters had reluctantly taken their departure I set to work, and in ten minutes had figuratively ripped a wide gash into the thing. It was but ten minutes more work to complete it.

Presently, there came a knock. Only twenty-two or three minutes had elapsed. The headquarters men were apparently beyond themselves in excitement and expectancy. Simultaneously they shot their question.

"Got it?"

"Yes, here you are". And I sat back and watched the blank look of amazement spread over their faces as they read the solution. Sorry I can only give you the start of it but this is how it ran: "Dear man of mine. I am so glad to hear from you. Your letter came and made me want to sneak up to the north room and rest in your arms for a moment.... I recall the first time when I went out in the boat. It was all so delightful. I recall the

daring and intrigue with a thrill that is almost as much ...." and so on at some length. Truly interesting as a document of emotion, but as to plans, conspiracies, dope, liquor, or smuggling - not a single word!

"Is this all? Why, there must be a mistake", Captain B-- insisted.

"Not here, Captain, I assure you. This isn't one of those Shakespeare-Bacon ciphers. You'll get the same answer I get if you want to check it. Here's the cipher alphabet. And I've already examined it to see if there's a message hidden inside this one - a cipher within a cipher. Nothing like that, I'm positive. It means just what it says, Captain, and I'm afraid you're on the wrong trail".

"Man, what a let-down!" he cried. "Shucks, let's beat it, 'n step the inspector from doing something foolish - an' dangerous. Thanks, old man. Hope the next one won't be such a false alarm as this".

Refreshed, I returned to my problem - and began for the nine hundred and ninety-ninth time to calculate the probability of PNZCV being the cipher equivalent of ENEMY.

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