

SUBJECT: Printing Telegraph Cipher Arrangement.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY

TELEPHONE AND TELEGRAPH BUILDING

195 BROADWAY

JOHN J. CARTY
CHIEF ENGINEERBANCROFT GHERARDI
ENGINEER OF PLANTKARL W. WATERSON
ENGINEER OF TRAFFIC

NEW YORK July 14, 1919.

Lieutenant-Colonel J. O. Mauborgne, S.C., U.S.A.,
Office of the Chief Signal Officer,
Washington, D. C.

My dear Colonel Mauborgne:

For your further information in connection with our ciphering system, I am enclosing herewith copies of Colonel Fabyan's letters to me of March 31, June 17, and June 26, and a copy of my reply of June 24 to his letter of June 17. I have not replied to his letters of March 31 and June 26.

Yours very truly,

B. Gherardi
Chief Engineer. *lhm*

Enclosures:

Copies of letters Colonel
Fabyan to Mr. Gherardi,
March 31, June 17, June 26;
Copy of letter Mr. Gherardi
to Colonel Fabyan, June 24.

LFM-BMW.

BLISS, FABYAN & CO.

Apr. 1, 1919
Acting Chief Engineer

P.O.Box 435

CHICAGO March 31, 1919.

My dear Mr. Gherardi;

I have your letter and the facts are as stated. I did not intend you to construe my first letter as a formal demand for a dinner for three, in fact, I am on a diet and could not indulge in a dinner if I had the opportunity.

I am of the opinion that any cipher is decipherable provided there is enough of it and one has enough time, enough brains and incentive to work on it. The use of the 26 characters is enough. The 32 characters complicate it just that much more. I repeat, I have profound respect for the Cipher Printing Machine and the brains which conceived it.

Sincerely yours,

FABYAN (Sd.)

Mr. Bancroft Gherardi,
Engineer of Plant,
American Telephone and Telegraph Co.,
195 Broadway,
New York, N.Y.

Ans. 6/24/19

BLISS, FABYAN & CO.

P.O. Box 435

CHICAGO June 17, 1919.

Mr. Bancroft Gherardi,
A. T. & T. Co., 195 Broadway,
New York City.

My dear Mr. Gherardi:

The fact that we demonstrated to our own satisfaction that the machine cipher could be successfully attacked, and so reported to the Signal Corps, seems to have raised the ire of some of the experts in Washington, and they are desirous that we prove our statements by the deciphering of messages Nos. 1, 5, 6 and 7, which you sent us under date of June 11, 1918, and of which you undoubtedly have copies.

Knowing the ramifications of your great machine, I hesitate to tackle this job on account of the time and the number of operatives necessary, and the expense, but consistent with the proposition as it is now put up to me through the Adjutant General's office, it may be my duty to proceed, but before doing so, I would like to ask a favor, and that is, that you will furnish me, from wherever these messages left off on the camouflage tapes with messages Nos. 8, 9 and 10, of say, 500 to 700 letters each, for the reason that we feel that it would materially lessen the necessary amount of labor and consequent expense.

I think I have made it plain that we want three additional messages beginning where presumably No. 7 left off on the double key tapes.

I take it for granted that you are as much interested as the Government in knowing any weakness in this system, and while I think you are sceptical as they are about it, I think you would prefer the information in order to make the necessary changes rather than have the work of this machine deciphered by an enemy.

I will say for your information that I am on a strict diet and I could not avail myself of the good dinner you promised in the event of our deciphering these messages.

I desire to express my personal regret that we find ourselves on opposite sides of the fence, both sure of our ground, but the issue at stake is the good of the service. Trusting to hear from you promptly, and thanking you in advance, I remain,

Sincerely yours,

GEO. FABYAN (Sd.)

A true copy - MER

GEORGE FABYAN
CHICAGO

June 26, 1919.

P.O. BOX 435

My dear Mr. Gherardi:

In reference to your letter of June 24th. I think in your place that I might feel just the same as you express yourself and if that machine cipher was my baby, I might feel some antagonism towards you if you had questioned its virtue.. I think we are all more or less human and under the circumstances, I appreciate the tone of your letter.

Personally, I cannot see any objection to my having the three additional messages requested, enciphered on the same key tapes as the ones I have but if you feel that it might complicate matters, I have nothing more to say. I am not looking for work; I'm not interested in any particular cipher with the exception of its underlying, fundamental principles. When the method of solution has once been found, our work is finished. It was my duty to so report it to the Department. That particular branch of the Department is sadly demoralized and I addressed my letter to the office of the Secretary. The results of my doing so are rather incomprehensible and would appear to need some explanation which I propose to have, but that has nothing to do with you. When the time comes that it is desired to make certain changes in the machine, it is possible that we may be of assistance.

I think that you, having only met me once, know that I am not a cipher crank and when I say that the cipher is not safe under ordinary conditions that you would be glad to be informed and take the necessary steps to make it so. Further, you are aware that I have no possible interest at stake or ax to grind, except to uphold the reputation of Riverbank and my own opinion

as expressed to the Department. Why this opinion is now questioned at Washington, it is beyond my comprehension but I reckon even that can be deciphered.

Here is something for your information that may be of value and it may not. I have a peculiar lot of people out at Riverbank. Among others, electricians, theoretical and practical. One evening, sometime ago, I found one of them studying a blueprint which I recognized as being the Multiplex Printing Machine Telegraph of the Western Electric. I asked how it came into his possession and how many of them were scattered around. He assured me that most of the electricians had them who were interested. The blueprint in question is the wiring diagram. If you would like to see it, I will mail it to you. It probably is not important. Sometimes, blueprints are dangerous.

With assurances of my warm personal regard and esteem,

Sincerely yours,

Fabyan (Sd.)

To Mr. Bancroft Gherardi,
Engineer of Plant,
American Telephone and Telegraph Co.,
195 Broadway,
New York, N. Y.

June 24, 1919.

Colonel George Fabyan,
Bliss, Fabyan and Company,
Chicago, Ill.

My dear Colonel Fabyan:

I have your letter of June 17 with reference to our machine ciphering system. As this matter has apparently now become the subject of an official investigation in Washington, I feel that it would be inappropriate, and might be embarrassing to us both, for me to furnish additional information or data without instructions to do so from the proper authorities in Washington. I am as anxious as you are to see the question definitely settled as to whether or not this cipher can be broken. I trust that you will fully appreciate the reasons why I cannot act upon your request.

With best regards, I am

Yours sincerely,

B. GHERARDI (Sd.)

BG-GJ

A true copy - MER