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IN THE UNITED STATES PATENT OFFICE
BEFORE THE BOARD OF APPEALS

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RE: Application for Patent of
WILLIAM F. FRIEDMAN *

Serial Number
478,193 *

Filed
6 March 1943 *

For *
SYSTEM FOR ENCIPHERING
FACSIMILE *

* * * * * * * * * * * * * *

Appeal Number 21,161

APPEAL BRIEF

(For Appellant)

Filed in Patent office
5 September 1950

The Honorable Commissioner of Patents
Washington 25, D. C.

Sir:

This is an appeal from the decision, 28 January 1949, of the Principal Examiner, finally rejecting Claim 14 of the above-identified application for patent. Certain other claims have cancelled, and Claims 5, 6, 7, 13, and 15 stand allowed. The rejected claim reads as follows:

14. Means for secretly transmitting graphic information comprising a device for scanning and representing said graphic information as a series of electric impulses of varying intensity, a camouflage message, a second device arranged for scanning said camouflage message and reproducing the same as a second series of electric impulses of varying intensity the impulses of said second series being nonsynchronous with the impulses of said first series, an electromechanical interlock connected under the control of both of said series of impulses for energization whenever predetermined combinations of impulses occur in the two said series of impulses, and a transmitter controlled by said interlock and adapted to emit impulses whenever said interlock is energized.

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The Examiner's statement contains an adequate explanation of the apparatus of Applicant's invention, and no extended description thereof will be herein included, it being thought sufficient to say that the invention is a facsimile privacy device wherein a dummy or camouflage picture is scanned concurrently with a picture or other subject containing the message desired to be transmitted and the two signals interacted to produce an enciphered facsimile signal.

Two references have been cited and used against Claim 14, these being Vernam, 1,310,719, and Cartier, 1,868,967, the applications of the references to the claim being substantially in identical terms.

Appellant agrees that the two cited patents, Vernam and Cartier, are for reference purposes substantially identical, and that they can be read against the claim in the same manner.

The rejection and the appeal, in the Appellant's view, center around features and elements which are not in substance fundamental in the apparatus of Claim 14. Stated otherwise, it is believed that one controversy here is of interpretation rather than structures.

The Examiner has argued in his Statement (page 4, lines 4-7), and elsewhere during the prosecution of the application, that, since the references relate to telegraphy, they involve the transmission of graphic information, but this is only loosely true. Originally, a telegraph system produced marks on a paper at a distance from the sending instrument, and it may do so today although frequently the received signal perforates a tape. Neither case, however, includes the transmission of graphic information, this latter implying the

formation upon reception of a replica or facsimile of the original message (be it picture, map, or printed text).

This point, true, would not be significant in some situations. In certain cases, the two expressions, and indeed the constructions denoted thereby, would be considered equivalents. But just as a spring and a weight may be equivalent in one construction and otherwise in another construction, so here -- for the erroneous interpretation of "graphic information" permitted the Examiner to say that a "tape transmitter" (which "reads" a punched paper tape by means of metal fingers) is a device for scanning (as required by the claim) since it "senses successive portions of a tape" (page 4, lines 12-13).

"Scan" and "scanning", however, are technical terms having established meanings. WEBSTER'S NEW INTERNATIONAL DICTIONARY, SECOND EDITION, (cited by the Examiner in another connection) supplies the following:

> scanning, n. - 3. Elec. The successive exposure of small portions of an object or scene in facsimile transmission or television.
>
> (New Words Section)
>
> scan, v.i.&t. Elec. In reproducing a television image, to cause (a surface) to be traversed by a rapid succession of narrow lines (scanning lines), varying in brightness, into which an image has been resolved by a device for scanning (see scanning, n., 3, in the Dict.) at the transmitting end. In mechanical scanning the scanning lines are produced by a beam of light directed by a mechanical part, as a rotating scanning disk. In electrical, or electronic, scanning the scanning lines are produced by a beam of electrons sweeping over the surface.

Appellant would not argue that the use of language may not be justified otherwise than by dictionary sanction, but would say that such sanction presents a prima facie case of correct usage. The Examiner's uses of "scanning" and "graphic information" were queried in the amendment of 28 June 1949 (page 2, lines 4-8), and the Examiner supplied no authorities for his positions. The Patent Office, in order to prevent misdescriptiveness, is properly very insistent upon dictionary support for terms used in applications. It should, however, be consistent and accept dictionary terms and definitions except when a contrary position is very clearly indicated.

Again, the Examiner's holding on this matter would perhaps not be prejudicial if it stood alone but, when taken with the earlier-mentioned misinterpretation, permitted a still further error which, it is believed, presents the crux of the rejection.

The appealed claim recites that the graphic information and a so-called camouflage message are represented or reproduced (for transmission) as series of electrical impulses of varying intensities and requires that the impulses of one of the series be nonsynchronous with the impulses of the other.

The Examiner, relying upon WEBSTER'S NEW INTERNATIONAL DICTIONARY (1940), above-mentioned, insists that "synchronous" means:

> "having the same period and phase."

Appellant believes that the quoted definition refers to one special case of synchronism. The Webster definition reads as follows:

1. Happening, existing, or coming into existence, etc., at the same time; concurrent in time; contemporaneous; simultaneous; as, synchronous events, geological deposits, or storms, in various parts of the country.

4. Physics. Having the same period; also, having the same period and phase; as, synchronous vibrations.

The consensus is indicated by the following authorities:

Synchronize - to cause to agree in time; happen simultaneously.
(From: Dictionary of Technical Terms - Crispin)

to make two or more events or operations occur at the proper time with respect to each other.
(From: Illustrated Technical Dictionary - Maxim Newmark)

(1) to occur at the same time - to coincide in point of time.
(2) to occur at the same successive instants of time.
Spec. to cause to indicate the same time as another.
(From: The Oxford Eng. Dictionary - Volume X)

Synchronizing - the maintenance of predetermined speed relations between the scanner and the recorder within each scanning line.
(From: Dictionary of Technical and Scientific Terms, Interim Edition - Signal Corps Engineering Laboratory, Fort Monmouth, New Jersey)

As indicated earlier, the structures of the claim and the references are not otherwise seriously in conflict.

Considered in the light of these authorities, it is apparent that Vernam and Cartier disclose apparatuses in which the two signal sequences must be synchronous - in order that, combined, they may result in the five-unit (or seven-unit) Baudot code the equipments are adapted to handle, whereas, in the Applicant's device, there is no necessary time relationship between the impulses of the "message" and "camouflage" sequences. As stated in the amendment of 28 July

1949, "It would be a rare occurrence, in fact, for any message impulse to be initiated at the same instant as a camouflage impulse, and much more rare for the duration of one such impulse to be an even multiple of the duration of the other."

Nothing, therefore, need appear in the claim - in view of the foregoing authorities - to ascribe a particular meaning to "nonsynchronous" (as first suggested by the Examiner in his Statement), since the desired meaning is amply supported. It may be noted that, as the signals treated by the apparatus are derived from facsimile scanners, only one special situation would result in synchronism (as defined by the authorities), that is, the picture intended for transmission and the camouflage picture would have to be identical, and the scanning rates would have to be identical; as a result, no privacy would be obtained, the transmitted signal representing the subject or, at best, a "negative" of the subject.

As above indicated, it is believed that the Vernam and Cartier references are not pertinent to the appealed claim when the several matters of interpretation of language are settled.

The applicable rule appears to be as stated in Walker on Patents (Deller's Edition), Volume 1, page 289:

> "Novelty is not negatived by anything which was neither designed, nor apparently adapted, nor actually used, to perform the function of the thing covered by the patent, though it might have been made to perform that function by means not substantially different from that of the patented invention." (Citing a long list of cases)

For the foregoing reasons, it is submitted that the Examiner should be reversed and Claim 14 allowed.

Respectfully,

WILLIAM F. FRIEDMAN, Appellant,

By Henry B. Stauffer
His Attorney