

| ROUTE ORDER SYMB | AFSA CODE | OLD CODE | PREC LOC. | INITIAL | DATE OUT |
|------------------|-----------|----------|-----------|---------|----------|
|                  | 03        |          | N         |         |          |
|                  | 03A       | 202L     | N         |         |          |
|                  | 03A1      | AS-70    | N         |         |          |
|                  | 03A2      | AS-70    | A         |         |          |
|                  | 03A3      | 202L2    | N         |         |          |
|                  | 03A4      | AS-71    | A         |         |          |
|                  | 03A5      | AS-71    | A         |         |          |
|                  | 03A6      |          |           |         |          |
|                  | 03A7      |          |           |         |          |
|                  | 031       | AS-71    | A         |         |          |
|                  | 031A      | 202L3    | N         |         |          |
|                  | 031B      | AS-71    | A         |         |          |
|                  | 031C      | AS-71    | A         |         |          |
|                  | 31        | AS-74    | A         |         |          |
|                  | 311       | 202D1    | N         |         |          |
|                  | 312       | AS-72    |           |         |          |
|                  | 32        | AS-75    | A         |         |          |
|                  | 321       | AS-75    | A         |         |          |
|                  | 322       | N-54     | N         |         |          |
|                  | 33        | N-52     | N         |         |          |
|                  | 33A       | AS-73    | A         |         |          |
|                  | 331       | N-52     | N         |         |          |
|                  | 332       | N-52     | N         |         |          |
|                  | 333       | AS-73    | A         |         |          |
|                  | 334       | N-52     | N         |         |          |
|                  | 335       | AS-73    | A         |         |          |
|                  | 34        | N51(31)  | N         |         |          |
|                  | 34A       | AS-76    | A         |         |          |
|                  | 341       | AS-76    | A         |         |          |
|                  | 342       | AS-76    | A         |         |          |
|                  | 343       | N-51     | N         |         |          |
|                  | 344       | AS-76    | A         |         |          |
|                  | 35        | N-53     | N         |         |          |
|                  | 35A       | N-53     | N         |         |          |
|                  | 351       | AS-76    | A         |         |          |
|                  | 352       | AS-77    | A         |         |          |
|                  | 02        |          |           |         |          |
|                  | 04        |          |           |         |          |
|                  | 05        |          |           |         |          |
|                  | 031B1     |          | N         |         |          |
| 1                | A         | 002      |           |         |          |

AFSA-03 ROUTING SLIP (INTERM)

AFSA R.S.# (225)  
 Date Rec'd 03  
 Orig. 16 Feb 1950  
 Serial: ~~SECRET~~

Date: 6 December 1949  
 From: Office of Naval Research  
 To: Director of Patents.  
 Via:

Subject: Infringement Claims of Edward H. Hebern and Hebern Code, Inc., et al, as they relate to CCM coding device.

Present Location A - AHS N - NC

ROUTING SYMBOLS

- A - ACTION
- R - PREPARE REPLY
- W - RETURNED FOR REWRITE
- I - INFORMATION
- C - COMMENT
- X - CONFER WITH
- V - INITIAL
- S - SIGNATURE
- O - RETAIN ORIG
- COPY
- COPY
- ENCL.

Ans'rs by  
 Serial:  
 03 R.S.#  
 AFSA R.S.#  
 Left 03: Destined:

REMARKS: For Mr Friedman  
 AFSA-14-Technical Division  
 From Mr Stauffer AFSA DSAS  
 at Arlington Hall  
 Station

(Mr Stauffer borrowed back + will strike off extra copy for us)  
~~SECRET~~  
 AFSA-03 R.S.#. (225) 225

RETURN THIS ROUTING SLIP TO AFSA-03 MAIL ROOM EVEN THOUGH ATTACHED CORRESPONDENCE IS RETAINED.

## Office Memorandum • UNITED STATES GOVERNMENT

TO : Mr. Rhoads

DATE: 27 March 50

FROM : Mr. Stauffer

SUBJECT:

Infringement Claims of Hebern + Hebern Code

This is the copy of the Navy report which you obtained for me from Mr. Friedman's file.

I've made a copy for my own use.

Thank you. HKA.

File Mr. Friedman's copy  
Folder "Hebern"  
ML

DEPARTMENT OF THE NAVY  
OFFICE OF NAVAL RESEARCH  
WASHINGTON 25, D. C.

Code 341

In Reply Refer To

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6 Dec 1949

## MEMORANDUM:

To: Director of Patents

Subject: Infringement Claims of Edward H. Hebern and Hebern Code,  
Incorporated, et al, as they relate to CCM coding device

1. The allegation of infringement relates to the claims of the following five patents:

|           |                                       |
|-----------|---------------------------------------|
| 1,683,072 | Edward H. Hebern of 4 September 1928  |
| 1,861,857 | Edward H. Hebern of 7 June 1932       |
| 2,267,196 | Walter N. Fanning of 23 December 1941 |
| 2,269,341 | Edward H. Hebern of 6 January 1942    |
| 2,373,890 | Edward H. Hebern of 17 April 1945     |

It is understood that although several different types of coding devices are used by the armed forces, the only specific type used by the Navy which is pertinent is that designated as the CCM.

2. As a result of the charges, an extensive preliminary report has been prepared by the Army Security Agency, covering infringement and validity of the patents involved in the subject claim and the extent of use of pertinent Government machines, including Army use of the CCM. In preparing this memorandum the aforesaid preliminary report has been used as the main source for determining whether the Navy has any liability for the use of the CCM.

3. Of the five patents alleged to be infringed it has been determined that only the oldest two, numbered 1,683,072 and 1,861,857 contain claims that may correctly be said to be infringed by the CCM. Each of these two patents will be considered separately, as applied to the CCM machine.

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4. Hebern patent 1,683,072 issued 4 September 1928.

According to the aforesaid preliminary report, this patent has claims 25, 26, 31, 34, 50, 51 and 52 that are probably infringed. However the report states it is considered that these claims are all probably invalid over certain specific prior patents. Another group of claims, numbered 47, 48, 49 and 54, are stated as possibly infringed but with a serious doubt as to actual infringement. Even if infringed, the claims in this group are stated to be probably invalid over specific prior patents. Therefore no claim of this patent is considered to be clearly valid and infringed by the CCM machine.

5. Hebern patent 1,861,857 issued 7 June 1932.

The preliminary report concludes that only four claims, numbered 53, 54, 55 and 61 may be said to be infringed by the CCM machine. Of these, however, claims 53 and 61 are stated anticipated by specific prior art. It is stated that claims 54 and 55 are not as clearly anticipated by patents known at the present time. Also, it is felt that an earlier machine, the "Enigma" made and sold in Germany, anticipates even these claims 54 and 55, and would invalidate the claims if "Enigma" was introduced in this country at a sufficiently early date.

A validity search in the Patent Office disclosed that these claims 54 and 55 are clearly invalid over earlier patents Nos. 689,447 to Worden, 957,753 to Darr, and 1,026,473 to Stafford. As a matter of interest, it is further noted that the Stafford patent also anticipates claims 9 to 14, 25, 27, 29 and 53.

In following up the suggestion of invalidity of claims 54 and 55 on the ground of double patenting, this patent and the earlier patent 1,683,072 were studied carefully. The two claims 54 and 55 merely define what may be aptly described as a "carry-over" mechanism which causes a wheel to

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rotate through a portion of a revolution when another wheel has rotated through a complete revolution. Such mechanisms are well known in "Veeder" counters, in mileage odometers on vehicles, and in case registers, etc.

The later issued patent 1,861,857 was filed in the Patent Office during the pendency of the earlier issued patent 1,683,072; the inventor is the same in each case, and the later issued patent is specifically stated to be an improvement of the invention set forth in the earlier filed and earlier issued patent.

A study of the earlier patent, and of claims 54 and 55 of the later patent resulted in the finding that these two claims are so broad as to read directly upon the disclosure in the earlier patent. The earlier patent has several claims drawn to the "carry-over" mechanism, but they are more limited in scope than the claims 54 and 55 of the later patent 1,861,857 under consideration.

The apparently novel feature of the carry-over mechanism in both cases is that each code wheel has associated with it a circular cam that rotates with the code wheel, which cam has only one depression in its periphery. Each code wheel has a ratchet on its periphery and is rotated step by step by a "ratchet dog" that is oscillated with respect to the ratchet. It is the function of the cam associated with a first code wheel to prevent the functioning of the ratchet dog on a second code wheel except at the time when the said first code wheel has completed one revolution. At this time a cam follower falls into the single depression in the cam periphery and permits the operation of the second code wheel by its ratchet dog.

The essential difference between the structure of the carry-over mechanism in the two patents is that in the earlier patent the cam associated

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with a code wheel is separated from its code wheel, while in the second or improvement patent the cam is right on the outer periphery of its respective code wheel and adjacent the ratchet thereon. While this is the improvement shown in the later patent the aforesaid cams are claimed merely as being "associated" with the code wheels.

Since this later filed and later issued patent 1,861,857 has broader claims 54 and 55 to the carry-over mechanism than appear in the earlier filed and issued patent 1,683,072, and these claims dominate the structure in the earlier patent, they are clearly invalid in the later patent.

"A reissue is ordinarily the only remedy where a patent is found to be not expressive of an invention to its full breadth. An enlargement of it is not to be effected by the ingrafting of broad claims upon a later patent based upon an application of narrow scope."

Union Typewriter v. L. C. Smith Co., 173 Fed.  
288,296 (W.D. Pa. 1909). See also the quotation  
from this case on appeal, 181 Fed. 966.

6. Conclusions.

Using the conclusions from the preliminary report made by the Army Security Agency, no known cryptographic device used by the Navy infringes any valid claim of patents Nos.

1,683,072  
2,267,196  
2,269,341  
2,373,890

The aforesaid preliminary report stated that the CCM machine fairly infringes claims 54 and 55 of patent 1,861,857 and that these claims were not clearly anticipated by any known prior art. However, these two claims

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are clearly invalid on the ground of double patenting over the earlier issued copending patent No. 1,683,072 to the same inventor, and are also clearly anticipated and invalid in view of patents Nos. 689,447, 957,753 and 1,026,473.

PREPARED BY: /s/ Edward L. Borlik  
E. L. BORLIK

DATE: Oct. 10, 1949

APPROVED BY: D. C. SNYDER  
HEAD OF OPINIONS AND  
APPLICATIONS BRANCH

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