

AMERICAN PATENTS FOR "ENIGMA" CIPHERING MACHINES.

- 1) No. 1,555,252 Protects the principle of the ciphering system which
Koch - Filed 18 Sep 28 is the basis of all our machines. *German No 425,147*
Issued 14 Apr 25 *British " 163,357 - 10 May 1920*
- 2) No. 1,556,984 Change from five figure numeral code to understandable
Scherbius ten letter groups. Applicable to incandescent lamp
and writing ciphering machines.
- 3) No. 1,554,550 Protects the principle of expressing only by letters
Scherbius in the cipher otherwise open text consisting of small
Filed 7 Dec 22 # 655413 letters, numerals, punctuation marks and spacing. This
Issued 11 Mar 26 is very important for ciphering machines because, for
reasons of security of the cipher, it is not possible
to see from the cipher text what class of signs the
clear text consists of, and also from the standpoint
of simplicity of manipulation as numerals and signs on
account of being ciphered do not need to be changed
into letters. This is also cheaper for cipher telegrams,
the clear text of which consists of several kinds of
signs. It is mainly applicable to writing ciphering
machines. It is also very important for ciphering
machines of other systems, and therefore extremely
valuable to us.
- 4) No. 1,657,411 Protects the principle of subdividing the cipher text
Scherbius into groups of five or fifty or a hundred letters. It
Filed 6 Feb 23 # 617,352 is convenient for counting the signs written down and
Issued 24 Jan 28 for finding out possible errors in mutilated messages.
German Con. Date 11 Feb 22 It is chiefly important for writing machines. It is
absolutely necessary for other types of ciphering
machines and therefore especially valuable to us.
- 5) No. 1,520,089 Electrical typewriter with type wheel.
Of course this type of construction is also applicable
to writing ciphering machines. We do not however use
this as the writing speed is too low. It is however
valuable to us as a so-called blocking patent against
other inventions (Construction patent)
- 6) Ser. No. 18,271 Refers to: irregular drive of the cipher cylinders. It
W. 30 is very valuable for all ciphering machines on account
1857 of the thereby increased security of the cipher (Prin-
Bernstein iple and construction patent)
25 mar 24
- 7) Ser. No. 110,810 Refers to: changeability of the cipher cylinders, which
W. 29 has important advantages from the technical cipher
1157 standpoint in that it permits the use of cylinders with
Korn other connections in any kind of arrangement for cipher
Ser. 10 mar 26 work. It is applicable to all cipher machines, but is
S. App 21 May 21 # 110810 mainly used for security of the cipher in our incandescent
lamp machines (Principle and construction patent)

8) Ser. No. 110,809 Refers to Reversing cylinder. It is consequently very important for the simpler machines, for example, our incandescent lamp machines, as this effects the saving of an expensive and space taking 26 part change-over for ciphering and deciphering (Construction patent).

Moreover five more patents have been applied for in Germany, which protect partly the principle and partly the constructional details of important parts of the incandescent lamp and writing ciphering machines, and which will be applied for in America within the year of priority. These consist of two applications for our latest incandescent lamp ciphering machines with counting mechanism which not only considerably increase the security of the cipher in these machines but also make the handling of the machine very simple. The first application is for protection of a principle and the second for protection of constructional detail. Three further applications refer to writing ciphering machines, one of them protecting the principle of technical gearing arrangements and two of them protecting constructional improvements for easier reading and quicker setting of the key and a change over arrangement which considerably cheapens the machine on account of its suitable construction. The two last applications can also be used for incandescent lamp machines.

From the patents granted and those applied for it can be seen that we have in America the most extensive patent protection of the principles of mechanical ciphering machines. As these patent applications are still quite recent, the patent situation in America is extremely favorable for us for many years to come.