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CHIEF SIGNAL OFFICER
July 28, 1924.PROPOSAL FOR SECRECY IN THE JENKINS
RADIO PICTURE SYSTEM

In order to achieve secrecy in transmission and reception of intelligence by means of the Jenkins Radio Picture System, I propose the following scheme:

1. A photographic negative of any complicated design, written or printed matter, etc., hereinafter termed the "key" is to be placed in front of the photograph or message to be transmitted. The first mentioned photographic negative or "key" may be as complex in pattern as desirable, the more complex the better. The material actually transmitted will then be a resultant of the superimposition of the "key" upon the "plain text" or original material, only those portions of the original which are not blocked out by the blackened portions of the "key" being transmitted.
2. At the receiving end, a positive print of the photographic "key" plate is inserted between the light beam and the recording paper. The light beam is so actuated as to be continuously operative, but when an impulse is received, it is cut out of action. Thus there will result a "negative record" of the original material.
3. It may be necessary to have a supplementary light beam at the receiving end which is actuated in synchronism with the present receiving light beam; the supplementary light beam passes through the "key", and then impinges upon the received record; thus supplying at the receiving end those portions which were blocked out at the transmitting end.
4. It may be better to place the positive of the "key" at the transmitting end and the negative at the receiving end. Or it may be possible to arrange for a positive key at both ends, or a negative key at both ends.

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