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CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

REPORT

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THIS IS UNEVALUATED INFORMATION

1. Two new gyro-rotors for an ultra-centrifuge[1] have been completed in KOV1 (construction and testing laboratory) of VEB Carl Zeiss, Jena. They both have a shape similar to that of an onion, with one model having a largest diameter of 150 millimeters and the other one of 180 mm. Both rotors are made of tempered aluminum. Neither of the two rotors can be operated at 60,000 rpm., as originally planned, but both work at a maximum speed of about 50,000 rpm. 25X1

2. The smaller of the two rotors has six borings with a diameter of 18 mm. each, placed circularly around the outer hull of the "onion". The larger rotor has twelve borings of the same kind. The borings serve the purpose of holding small containers filled with liquids to be subjected to ultra-centrifugation. The containers were originally made from an acid-proof synthetic matter called Igamid IB, but trials showed that this material could not withstand the centrifugal force. Containers made from harder synthetic matter called Igamid IA are now being tried out.

3. The two rotors are interchangeable. They are suspended on a shaft of tempered spring steel which also holds the drive mechanism placed above the rotor. The drive mechanism consists of three circular sets of openings into which compressed air is blown; one set serves as a brake. The shaft is held by a pair of conical tongs.

4. The ultra-centrifuge is to be used in conjunction with a Schlieren device which will serve the purpose of investigating the centrifugated liquids. This Schlieren device will be of smaller dimensions than those put out by Zeiss so far. Blueprints of this small-size Schlieren device are being prepared.

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