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INFORMATION REPORT INFORMATION REPORT

CENTRAL INTELLIGENCE AGENCY

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C-O-N-F-I-D-E-N-T-I-A-L

COUNTRY	USSR (Black Sea)	REPORT	
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SOURCE EVALUATIONS ARE DEFINITIVE. APPRAISAL OF CONTENT IS TENTATIVE.

1. The atomic energy research institute at Agudzeri (N 42-55, E 41-07) was headed by Professor Gustav Hertz, and was known as Institute A (see sketches No. 1 to 3 on pages 5-11). The institute headed by Manfred von Ardenne at Sinop was known as Institute S. Both institutes were subordinate to the Ninth Directorate of the 25X1 Ministry of Internal Affairs.

2. There were about 45 German scientists at the institute at Agudzeri, and 50 German craftsmen. Soviet personnel attached to the institute included about 100 scientists, 100 auxiliary technical personnel, and 150 workers (see the list of personnel on pages 2-3). Power was furnished to the institute from the power station at Sinop by a power transmission line. It was rumored that additional electrical power would be furnished in 1949 by a new power station erected north of Sukhumi. This information was obtained from other prisoners-of-war who worked on the construction of the power station at Sukhumi. 25X1

3. Pressing devices required for the manufacture of ceramic tubes and component parts of mass spectrographs were made in one of the workshops of the institute (see sketches No. 4 and 5 on pages 12-15). The following information on the manufacture of ceramic tubes was available: A gray-green, plastic clay-like substance with a slight metallic sheen was produced in the chemical laboratory headed by Dr. Reinhold Reichmann. The substance was further processed in a calender machine until it could be easily shaped by hand. The basic material used for this substance was said to contain nickel, and was prepared with a weak acetone solution. The material processed in the calender machine was put by hand into a sheet metal bowl, and then placed under the pressing machine, which was operated manually. The plastic substance was then pressed through a nozzle, from which it emerged in the shape of a tube, the wall of which was from three-tenths to six-tenths of a millimeter in thickness. The continuous tube was cut into sections 60 to 80 centimeters long, which were immediately put into an acetone bath where they were hardened for about two hours. The finished tubes looked like nickel, and 25X1 25X1

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(Note: Washington distribution indicated by "X", [illegible] "#".)

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their surface was very smooth. Generally only 20 to 30 percent of the tubes delivered to the institute were acceptable. 25X1 some of the tubes were sent to Moscow. work on the manufacture of the press and nozzle used for the production of the tubes began in the fall of 1947. Production of the tubes was always given priority. They were made in batches of 100, and later of 200 to 300, with lengths between 40 and 80 centimeters, and walls of various thicknesses.

4. Autoclaves were also reportedly manufactured at Agudzeri and were connected with isotope separation. Professor Hertz had developed these devices, and Dr. Justus Muehlenpfordt had charge of their construction. The autoclave measured about 120 by 80 by 75 centimeters, and generated great heat so that it had to be fitted with a cooling jacket filled with liquid air. A complete device of this kind was seen in one of Professor Hertz's laboratories. 25X1

List of Personnel Attached to the Institute at Agudzeri

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1. Soviet Personnel

Chief of the Institute:

Until early 1949, Stanov (phonetic spelling) (fnu), an officer of undetermined rank, a close relative of the Soviet minister of the same name.[1] Stanov was replaced by Pizayev (fnu), an officer who said he was an engineer. Pizayev had been in Germany in 1947 and 1948 where he procured the apparatus required at the institute.[1]

Deputy Chief of the Institute:

Kvartsava (fnu), an engineer.

Chief of workshops:

Kurochkin (fnu), an engineer, who came from an installation in the Ural Mountains.

2, German Personnel

Professor Gustav Hertz, Chief of the Institute

Physics Department

Material Testing Department:

Dr. Helmut Bumm

High Requency Department:

Dr. Busse (fnu) A specialist in the field of radio tubes.

Dr. Muehlenpfort's Group:

Dr. Justus Muehlenpfort developed a device for the separation of isotopes.

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Organization working on the development of a mass spectograph:

Dr. Werner Schuetze, head of this group. He was awarded a Stalin Prize (50,000 rubles) in 1946.

Organization working on electrical problems:

Helmut Staudenmeier was head of this organization.

Mathematical Department:

Dr. Heinz Barwich	The most prominent mathematician in this department. He was a Communist.

Chemical Department:

Chemists known to have been assigned to this department included: 25X1

Dr. Werner Hartmann [redacted]

Dr. Schnase (fnu)

Dr. Schimor (fnu)

Dr. Reinhold Reichmann

Heinrich Pock

Dr. Boris Ickert

It is believed that the photographic laboratory and the group of glass blowers were also attached to the chemical department.

Designs Bureau

Dipl. Ing Hoffmann (fnu)	Chief of the bureau.

The design bureau controlled the following installations:

1. General workshop, originally headed by Staudenmeier. When Soviet engineer Kurochkin took over this workshop, PW Kurt Krauth became the chief of the German group.
2. Precision mechanical workshop, headed by Hoehne (fnu).
3. Drawing office: Chief Ing. Ittner (fnu), who was transferred in about 1948 to an undetermined location.
4. Group of electricians.

1. [redacted] Comment: Pizayev should read MVD Lt. Col. Bizayev, who was administrative chief of Object G, Agudzeri, to 1950, Stanov should read Zhdanov. The overall chief of both Agudzeri and Sinop was Maj. Gen. Kochlavashvili. 25X1

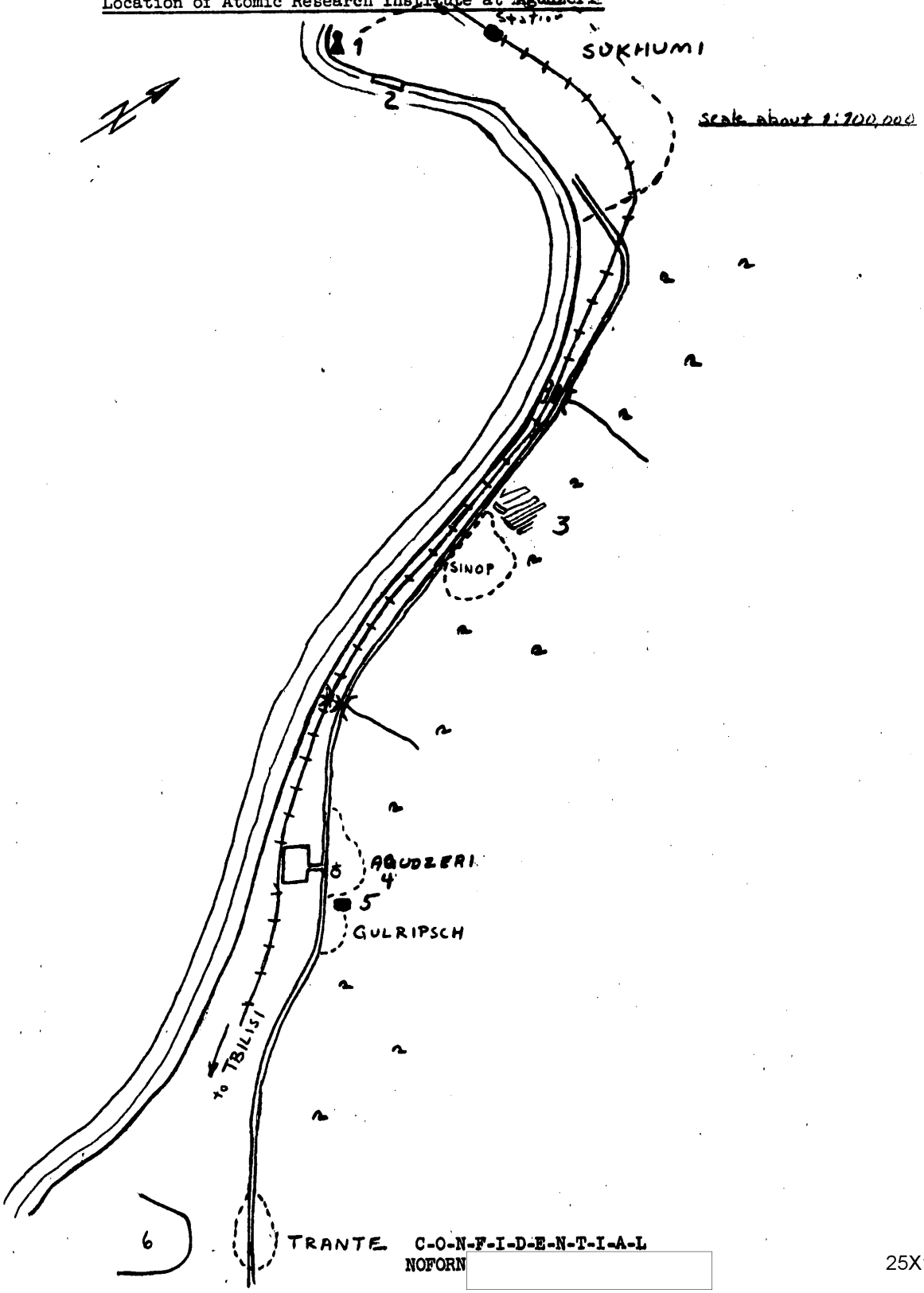
Sketch No. 1

Location of Atomic Research Institute at Agudzeri.

Legend

1. Lighthouse near Sukhumi
2. Jetty wall
3. Objects, institute of Manfred von Ardenne
4. Object A, institute of Professor Hertz
5. Cemetery
6. Small airfield

Sketch No. 1
Location of Atomic Research Institute at Agudzeri



Sketch No. 2

Layout of Institute at Agudzeri

Legend:

1. Three houses, four-story brick buildings for Soviet residents.
2. New administration building, single-story wooden building, occupied by a Soviet construction company, garage, and small repair shop.
3. Headquarters building and guardhouse, three-story brick structure, 50 by 50 meters.
4. Log houses.
5. Two-story brick buildings, quarters of MVD personnel.
6. Storage of ration supplies.
7. Laundry.
8. PW camp.
9. Kitchen, brick building.
10. Storage facilities.
11. Two three-story houses, occupied by German scientists and their dependents.
12. Outpatients' station, log houses.
13. Supply installation under construction, approximately 150 by 300 meters (power station or water supply plant?).
14. House.
15. Guest house.
16. Garage.
17. Villa occupied by Professor Hertz.
18. Collective farm.
19. Park.
20. Main gate to the institute area.
21. Old institute building, a three-story brick building, about 80 by 15 meters, with a tile roof. The institute housed offices, small laboratories, and mechanical workshops. Dr. Barwich's office was on the ground floor. Also located on the ground floor was the photographic laboratory and a room where distilled water for the electricians was produced. The offices and laboratories of Professor Hertz and his Soviet colleagues were on the first floor. Dr. Bu[redacted] and Dr. Senski also worked on this floor. The second floor housed a high frequency laboratory, Dr. Busse's office, the library, and the archives. Dr. Schuetze worked in the wing of the building.

22. Annex to the institute, two-story brick building, 70 by 25 meters, erected in 1948. The annex housed several design bureaus, three isolated test rooms, storage facilities, and the work rooms for the group of electricians headed by Staudenmeier, and the group of glass blowers headed by Segel Sr.

23. Garage, about 80 by 15 meters.

24. Storage for chemicals and acids, brick building, 30 by 30 meters.

25. Auxiliary power supply, equipped with a Diesel generator, about 30 meters square.

26. Mechanical workshop, brick and steel structure, about 70 by 20 by 20 meters, with slightly inclined glass roof.

27. Workshop, 70 by 25 by 20 meters, steel and brick structure, with slightly inclined glass roof.

28. Workshop; new, about 60 by 20 by 10 meters, brick structure.

29. Brick building under construction, about 30 by 40 meters.

30. Storage of old and unused equipment; brick building, about 20 by 15 by 15 meters.

31. Workshop, about 40 by 20 by 10 meters, brick and steel structure; a portion of the building was apparently semi-underground. [redacted] 25X1 liquid air was produced there.

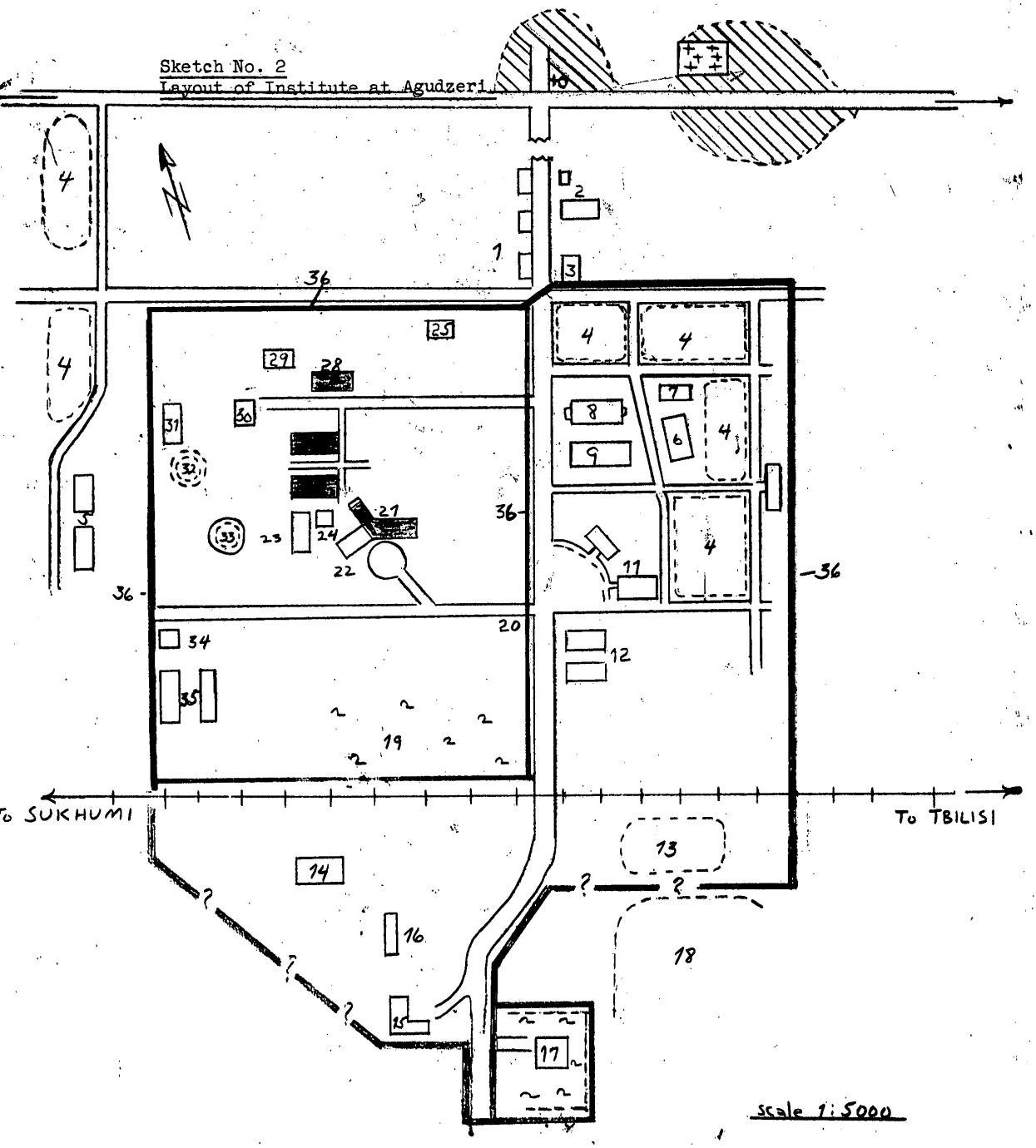
32. Storage container for liquid air, about 15 meters in diameter.

33. Storage of gasoline, oil, and other inflammable agents; containers semi-underground.

34. Storage building, about 40 by 40 by 12 meters. Component parts of machinery, copper tubes, brass tubes, and fine rolled sheets, parts of small steam pumps, sheet metal tubes, and electrical equipment, were stored there. It was believed that a secret apparatus or a component part of it was being built in this building. [redacted] 25X1 25X1

35. Two brick buildings, each about 50 by 25 by 12 meters. One of the buildings housed a circular saw with which iron parts and ingots were cut, and a metal saw fitted with two levers for the cutting of thin tubes. The other building housed a steam hammer. In July 1949, parts of another steam hammer were observed outside this building.

Sketch No. 2
Layout of Institute at Agudzeri



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Sketch No. 3

Detailed Sketch of the Institute at Agudzeri.

Legend:

The items listed are identical with those in Sketch No. 2.

21 and 22. Institute building.

23. Garage.

24. Storage building.

25. Auxiliary power station.

26. Mechanical workshop.

a. Precision mechanical department, equipped with lathes and planing machines, including one Pittler lathe. Five or six precision mechanics worked there under foreman Hoehne (fnu). Brass screw threads, steel bolts, nuts, and individual parts were manufactured in quantity. Individual parts for mass spectrographs were also produced.

b. Forge with three fires.

c. Plumber's and welding shop equipped with one Raboma set, several autogenous welding sets, and one electrical spot welding apparatus.

d. Carpenter's shop.

e. Compressed air station and one sandblast unit.

f. Tool room.

g. Soviet foreman.

h. Transformer station.

27. Workshop, built in 1948.

a. Section of the shop where, about early 1949, ducts about 3 meters deep and 2.5 meters wide were excavated by a Soviet construction company. Concrete foundations, apparently for heavy machinery, were also built. In July 1949, this section of the workshop was still empty.

b. Section where three rolling machines stood. One of the machines had a rolling face 50 cm wide and was used for the rolling of metal foils up to one-hundredth of a millimeter thick. This section also housed a machine used for the manufacture of iron and copper nails, and a machine used for the manufacture of brass micrometer screws. About 25 Soviet workers worked in this workshop.
Sections a and b were divided by board walls.

28. Workshop

a. Chemical laboratory, work place of Dr. Reichmann and Pock.

b. Work room prepared for the reception of a 100-ton press which was delivered by a German firm.

c. Room equipped with electric devices (switching room for chemical laboratory and the presses of item d).

d. Machine room, about 8 by 10 meters, equipped with two presses and one calender machine used for the manufacture of special tubes.

e. Chemical laboratory with facilities for the kneading of special substances which were further processed in the calender machine. Steel vats, about 1.5 by 0.5 meters, in which tubes were hardened were also available in this department.

29. Brick building.

30. Storage facilities.

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Sketch No. 3
Detailed Sketch of the Institute at Agudzeri

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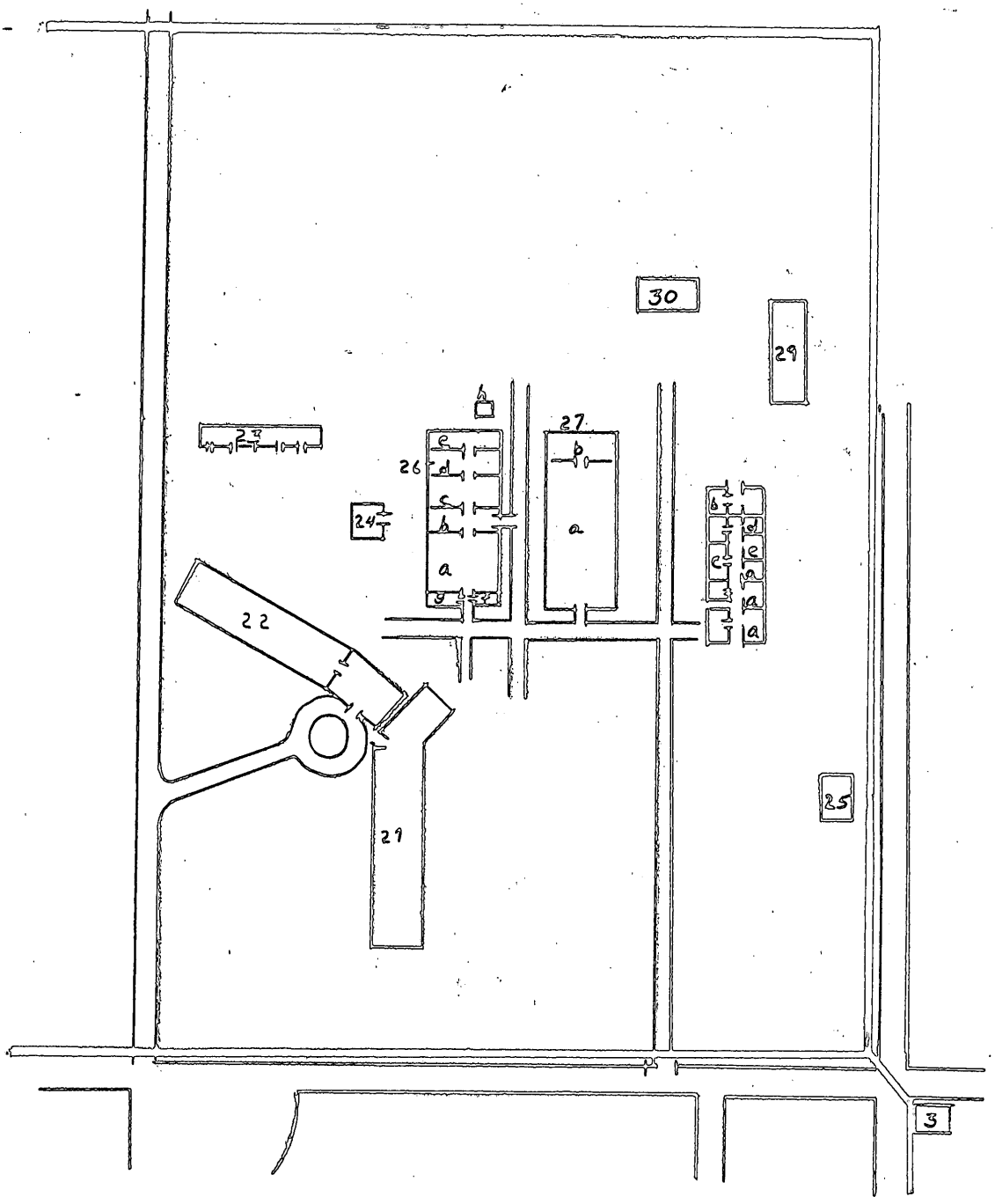

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Sketch No. 4

Device for the Manufacture of Tubes

Legend:

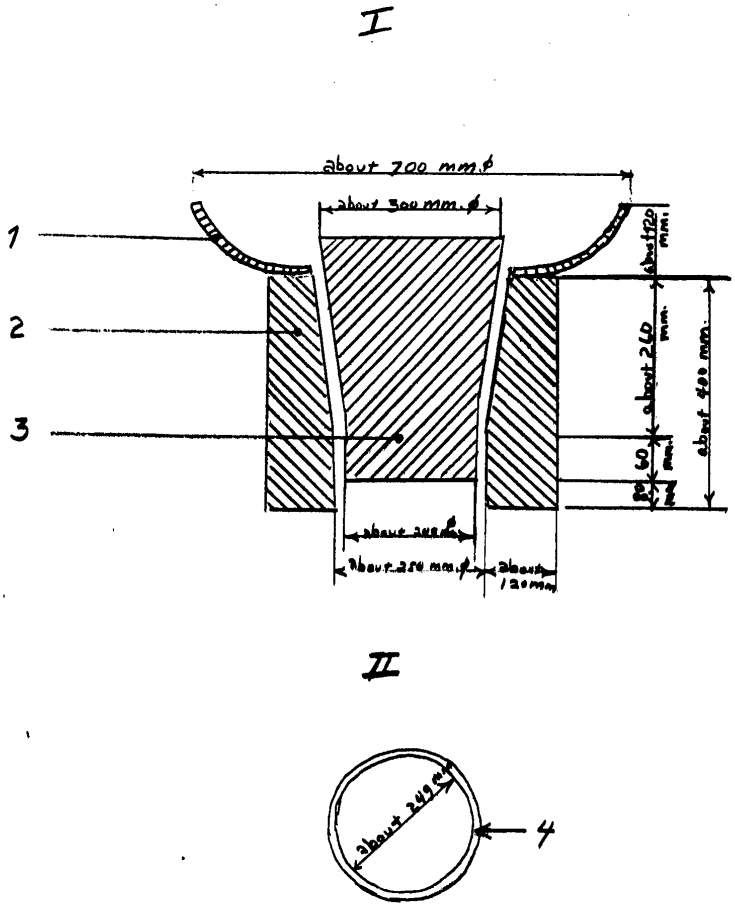
I.
1. Vat

2. Unit called "Stempel" (stanchion)

3. Unit called "nozzle"

II.
4. Cross section of tubes manufactured at Agudzeri

Sketch No. 4
Device for the Manufacture of Tubes



Sketch No. 5

Component Parts for Mass Spectographs Manufactured at Agudzeri.

I: Steel Plates Used in Magnets

1. Conical slots, the larger slot having a width of about 7 mm, the small one of about 4 mm.

2. Oval slots, 20 by 10 mm, about 10 mm distant from the edge of the plate.

3. Vertical slot, 25 by 60 or 80 mm, about 5 mm distant from the edge of the plate.

4. Bored holes, 10 or 12 mm in diameter, for locking screws.

Ten series of eight such steel plates each were manufactured between the spring of 1948 and early 1949. Groups of two or four such plates were screwed together and wrapped with very thick copper wire. When electric current was sent through this wire, a magnet was formed which was used in the mass spectograph. Two or four such magnets were used for each mass spectograph, as was stated by Dr. Schuetze.

II: Stay Bolt

5. Threaded section.

6. Smooth section.

III: Casing Sheets

Each mass spectograph was surrounded by a casing consisting of shutter-like metal sheets, 5 mm thick and 1 meter square.

IV: Casing

The first mass spectograph was completed in early 1949. Work on three other mass spectographs was started about two months after the checks on the first spectograph were completed. The two other spectographs were not completed by 15 July 1949.

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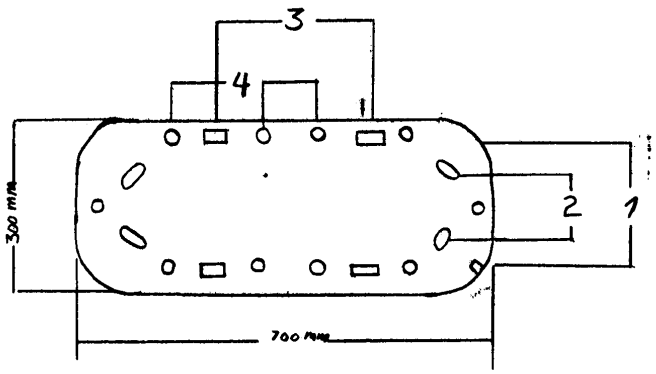
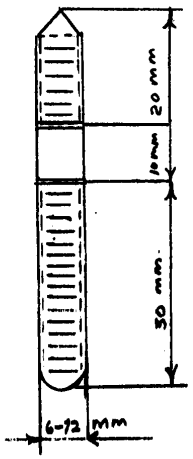
Sketch No. 5
Component Parts for Mass Spectographs Manufactured at Agudzeri.

I

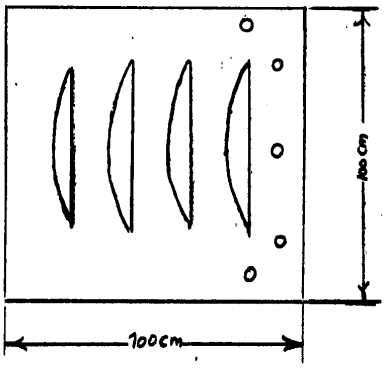


not to scale

II



III



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