

Remark: The items of the equipment which were in Acetylene Generating Plant during the War, and were removed out of the Plant before its designation as the reparation equipment, are like the followings:

No.	Name of Machine	Amt.	Location	Condition of Machine
1	Brake crusher	1	Carbide Material Plant	1
2	Motor 15 HP	1	Electric Plant	1
3	Winch	1	Limestone Plant	1
7	Motor 15 Hp	1	Electric Plant	1
8	Hand-winch	1	Carbide Plant	1
15	Motor 2 HP	1	Salt Plant	1
Total:		6 units		

#### H. Plan of Use of Building under Application for Exemption.

The items of the equipment decided to be purchased:

Lathes: 5 units (14 feet-- 1 unit, 12 feet--1 unit, 8 feet--1 unit  
6 feet--2 units )  
Planer: 1 unit ( 8 feet ) Shapers: 1 unit( 24 inches )  
Grinding Machine: 1 unit Tool Grinding M.: 1 unit  
Drilling M.: 1 unit Radial Drilling M.: 1 unit(1500)  
Universal Milling M.: 1 unit Hammer: 1 unit ( 40 in.)  
Sawing M.: 1 unit

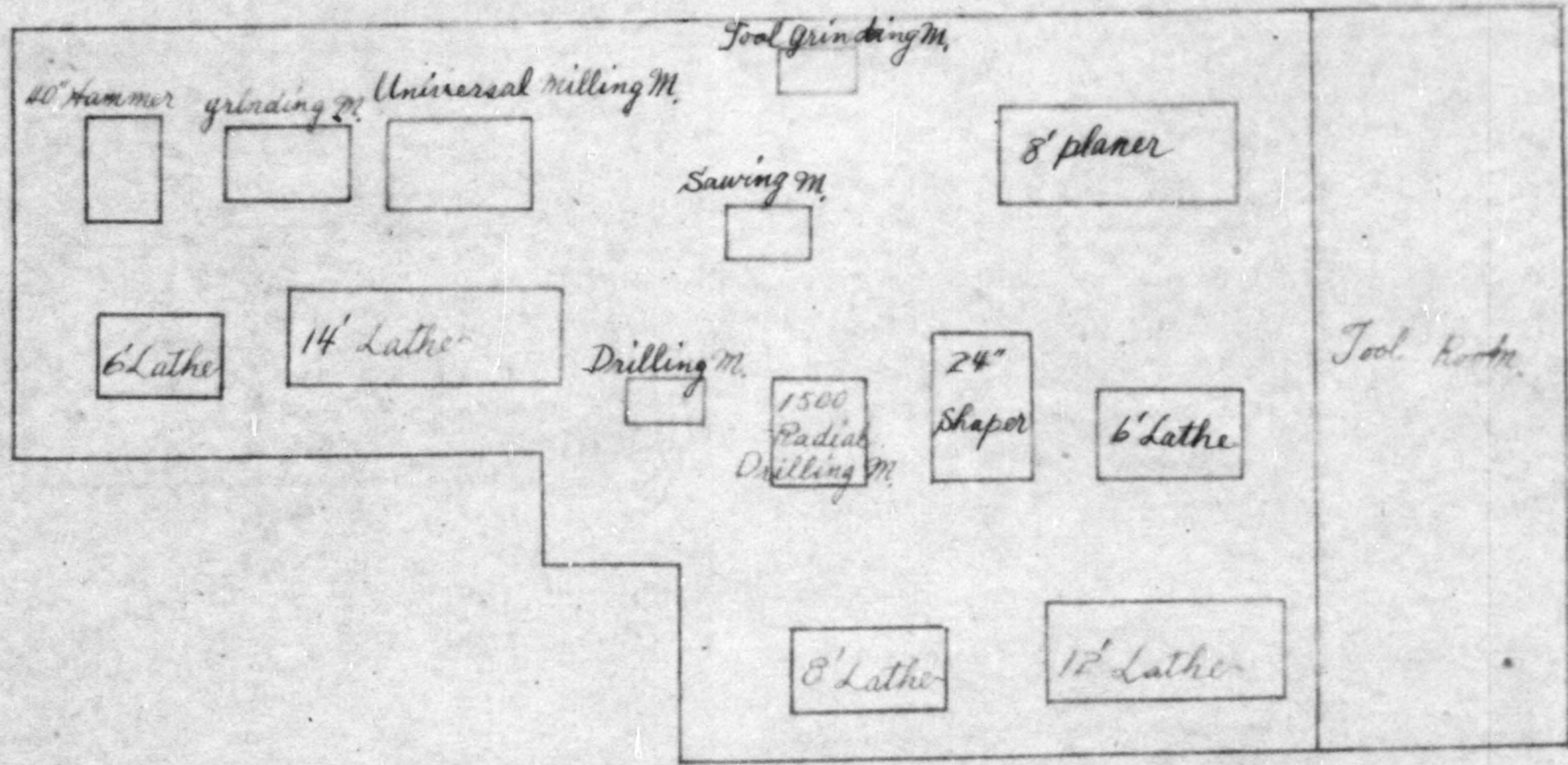
The total of the machine tools above-mentioned is 14 units, all of which are installed, and part of the Plant is to be used as a tool room.

( See Arrangement No. 1 )



No. 1

Arrangement Diagram of Machinery in Acetylene generating plant.

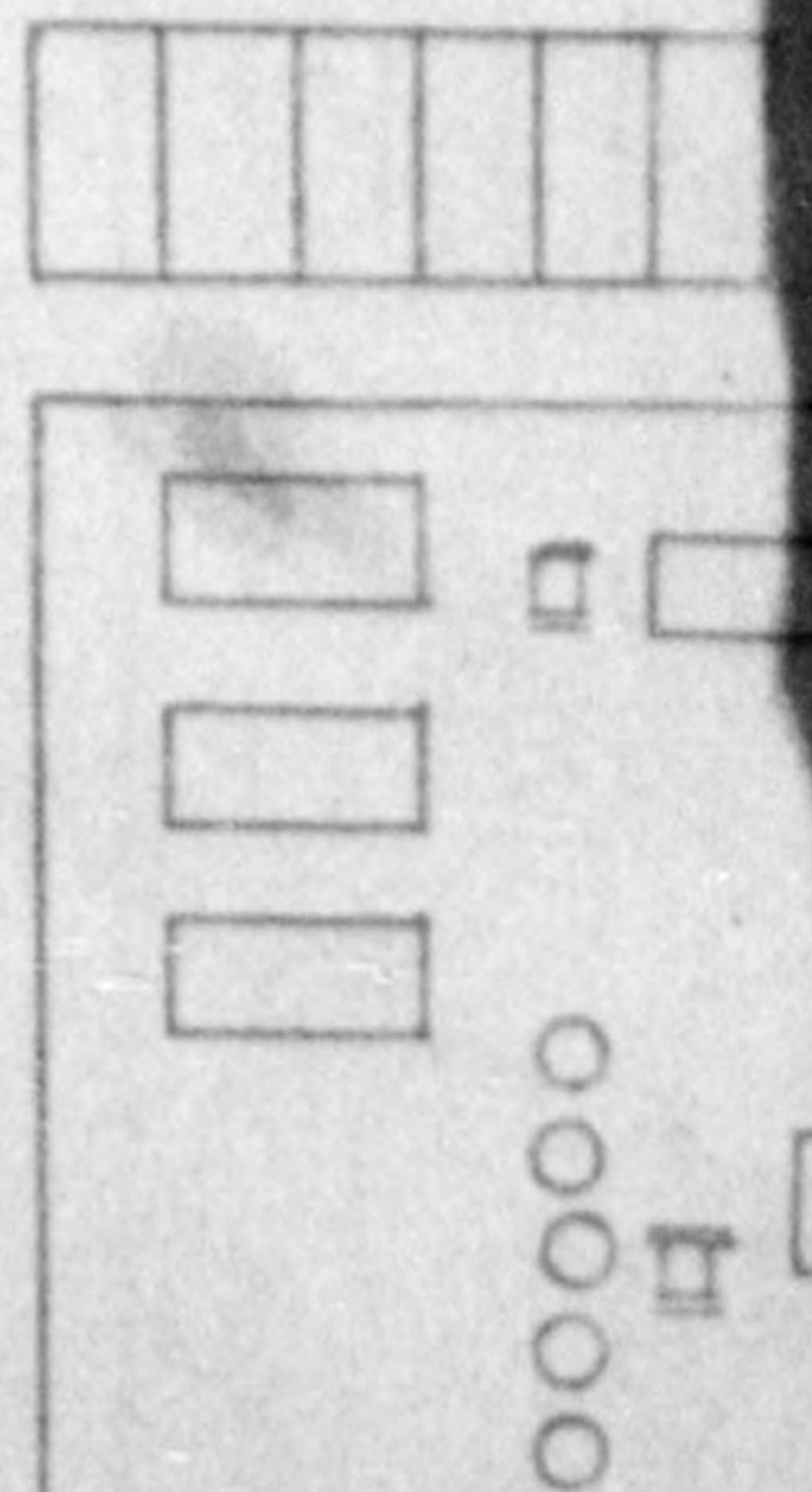
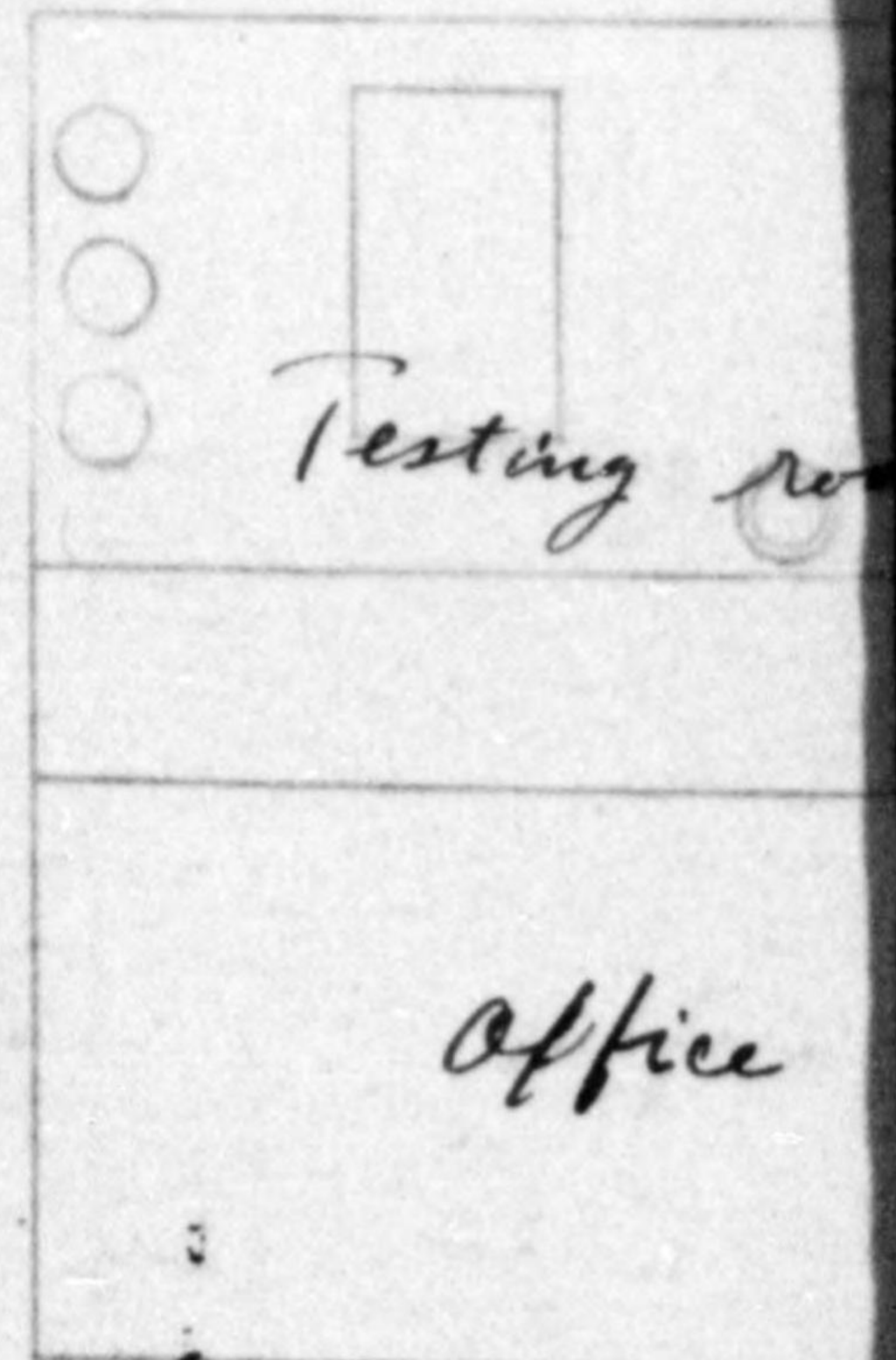
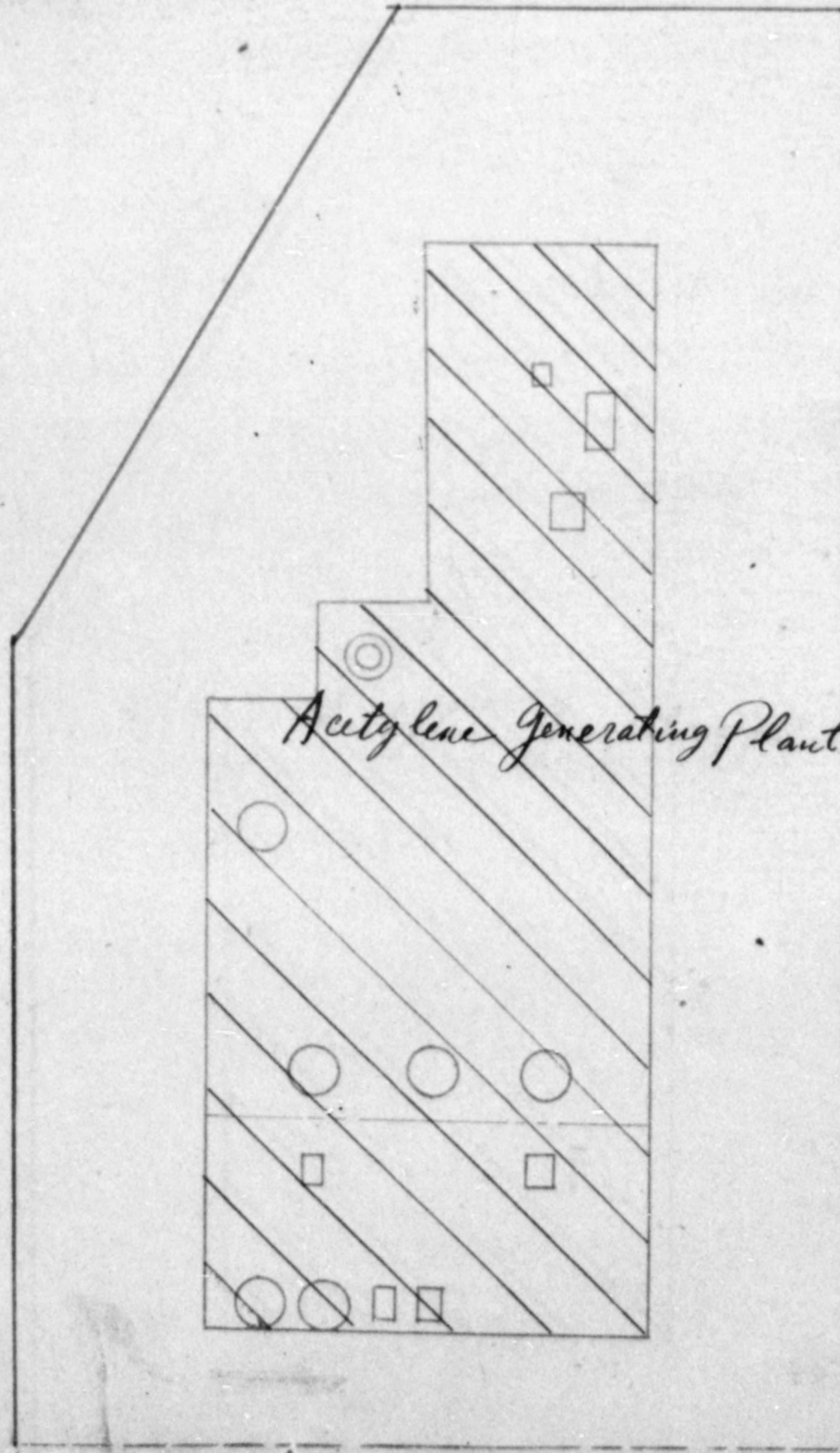




Annex No. 3

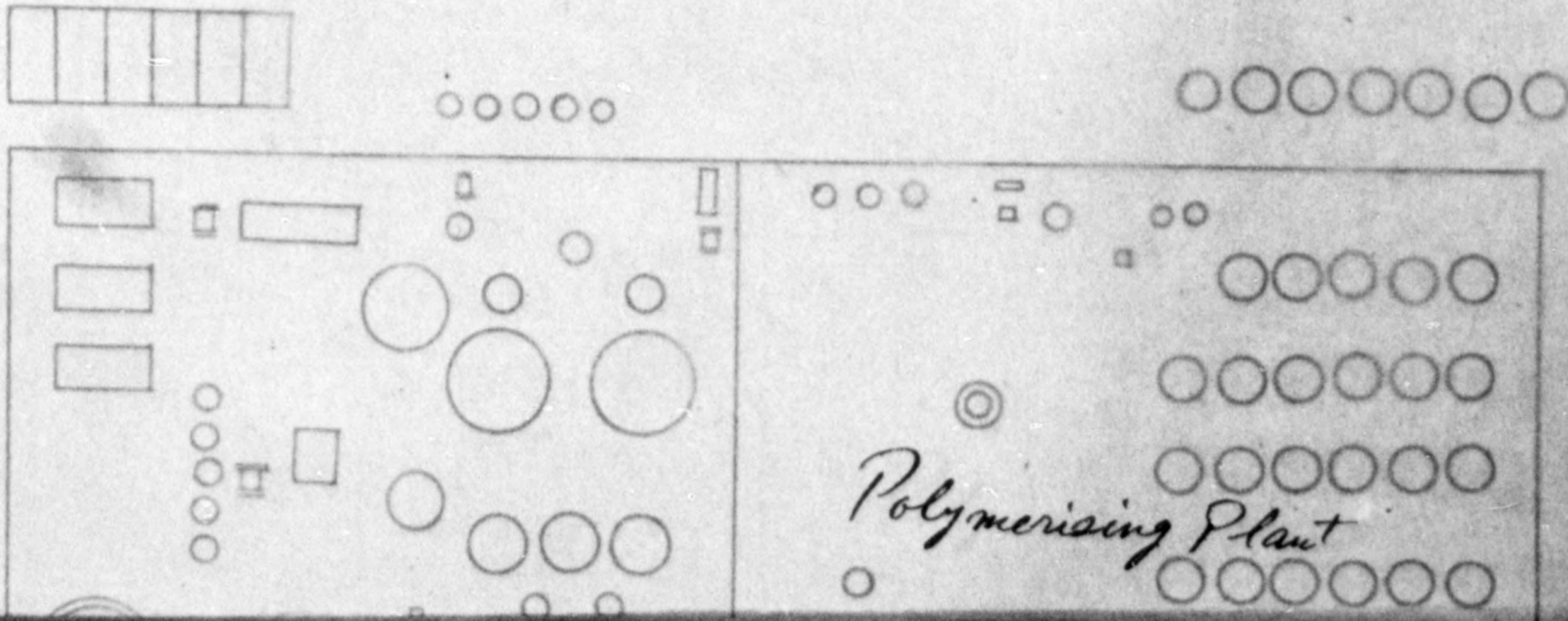
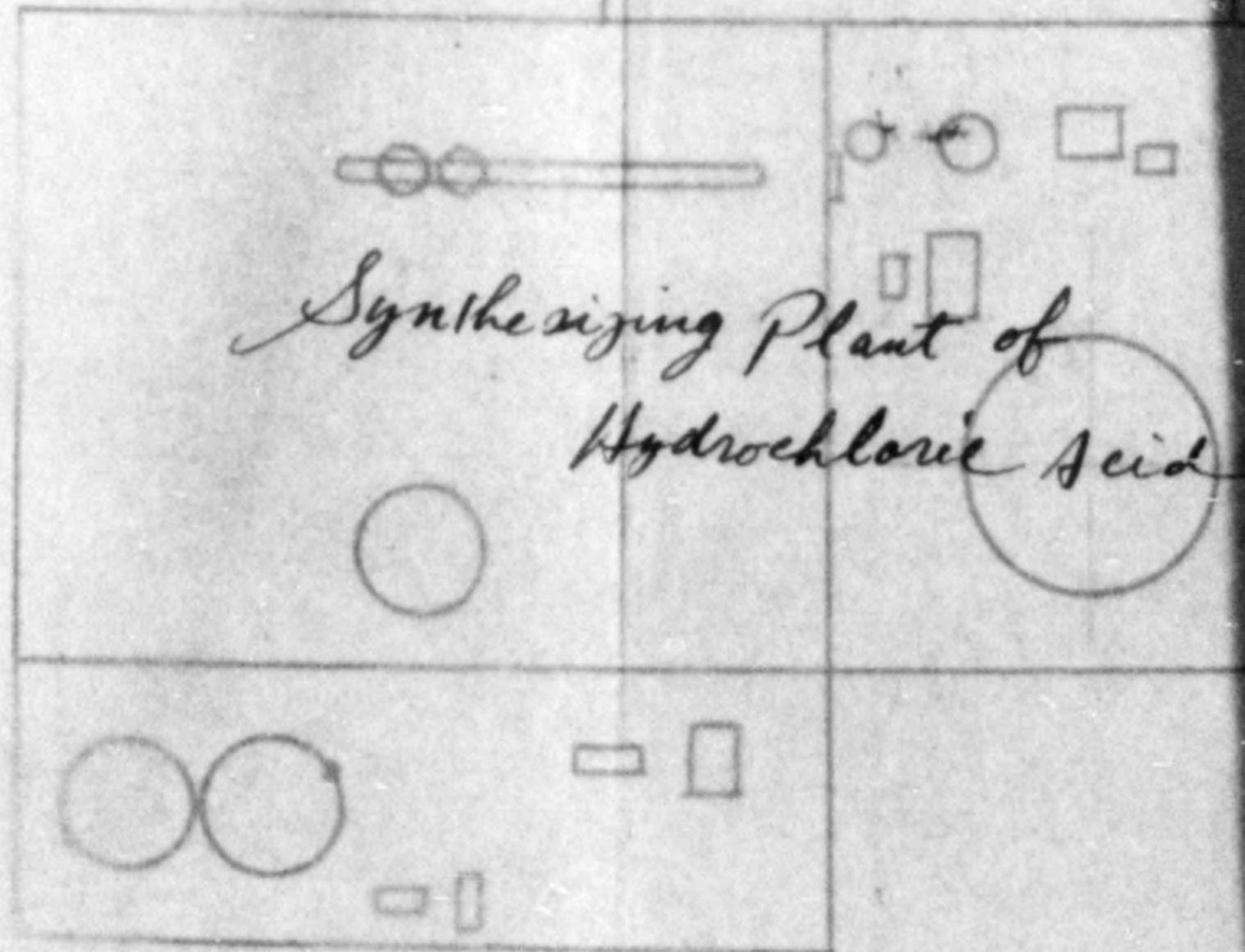
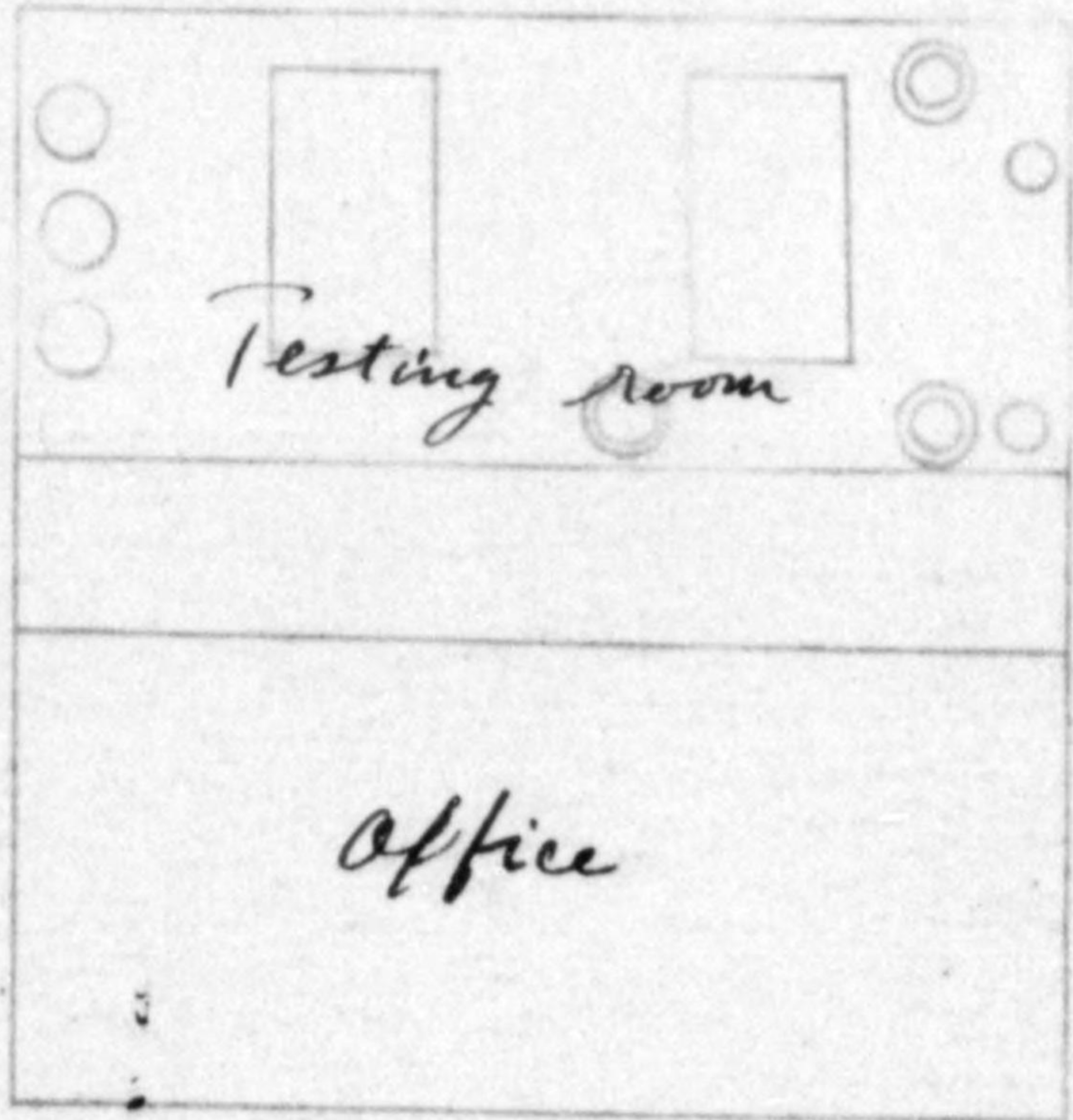
- Guard fence
- - - - - Guard fence to be made after exemption
- ////// Building to be exempted

Synthesit

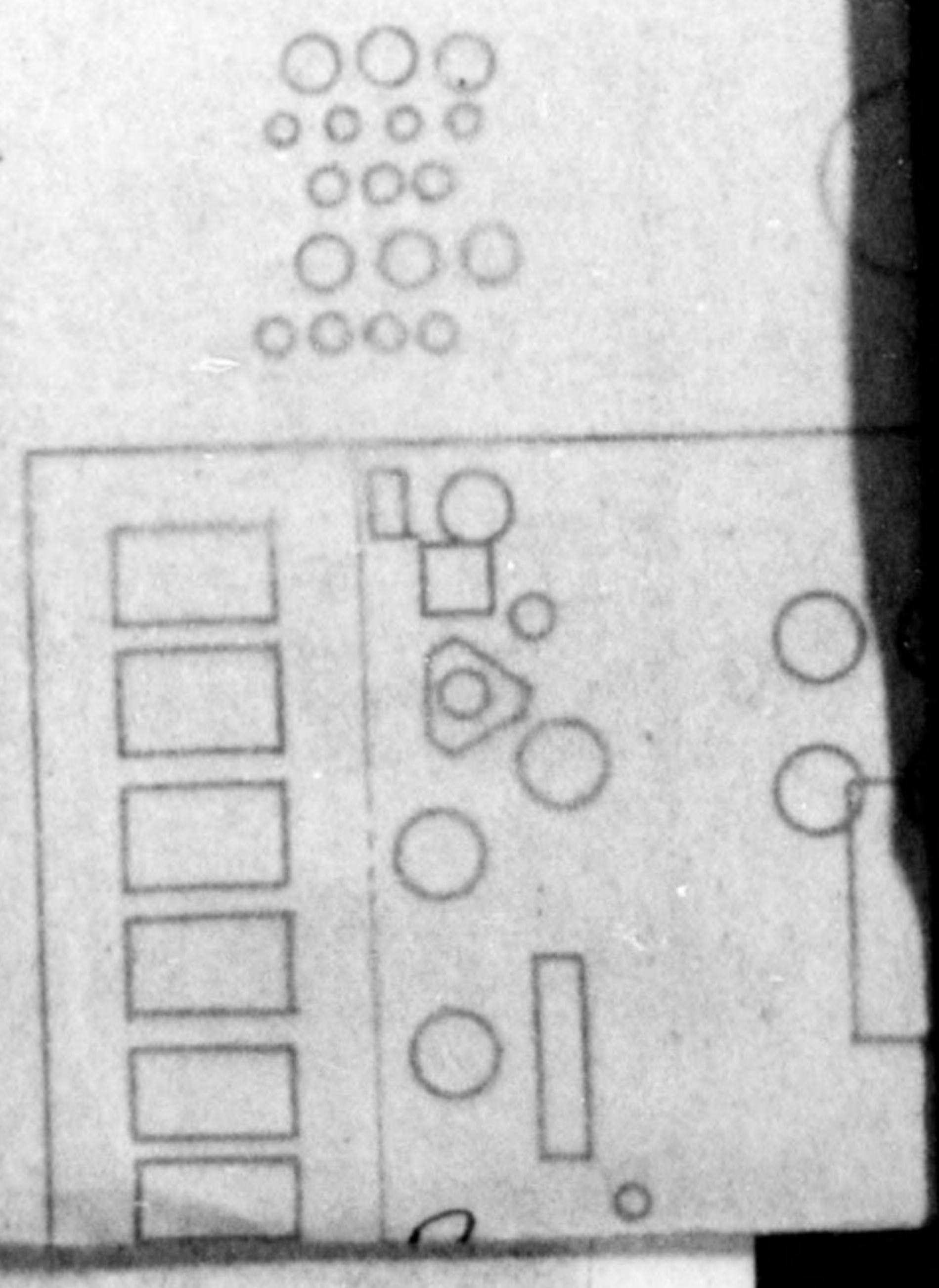
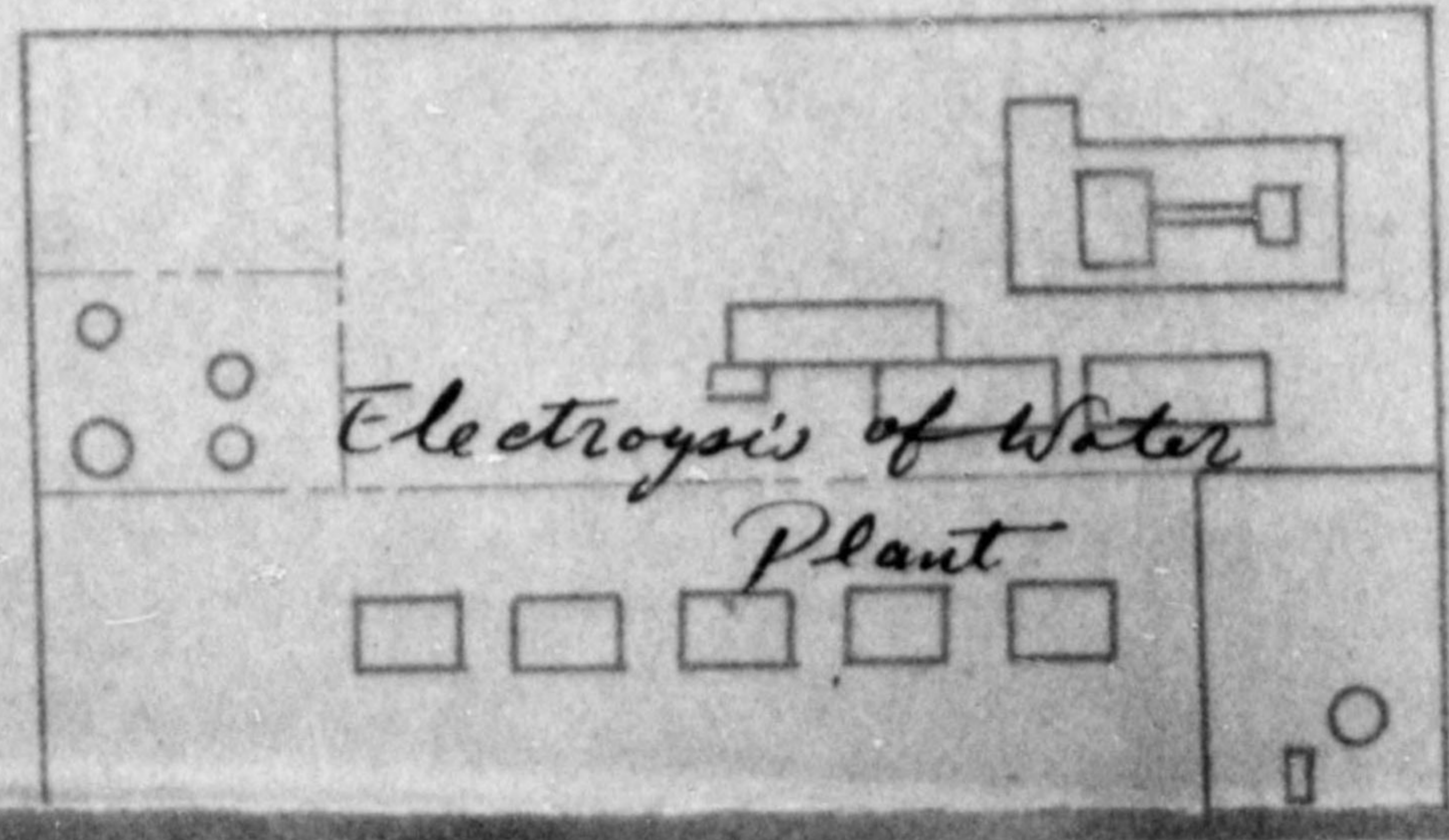
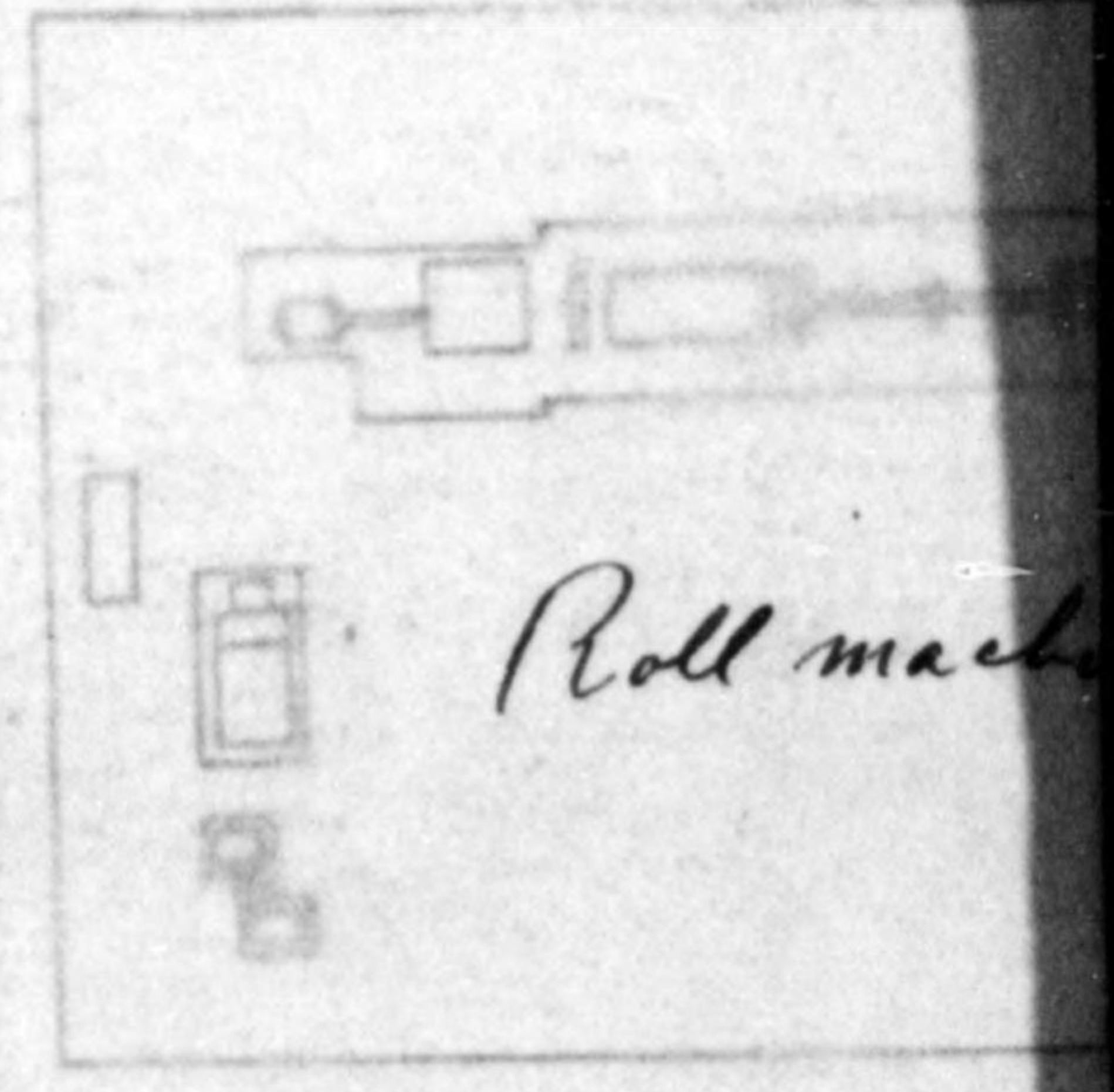
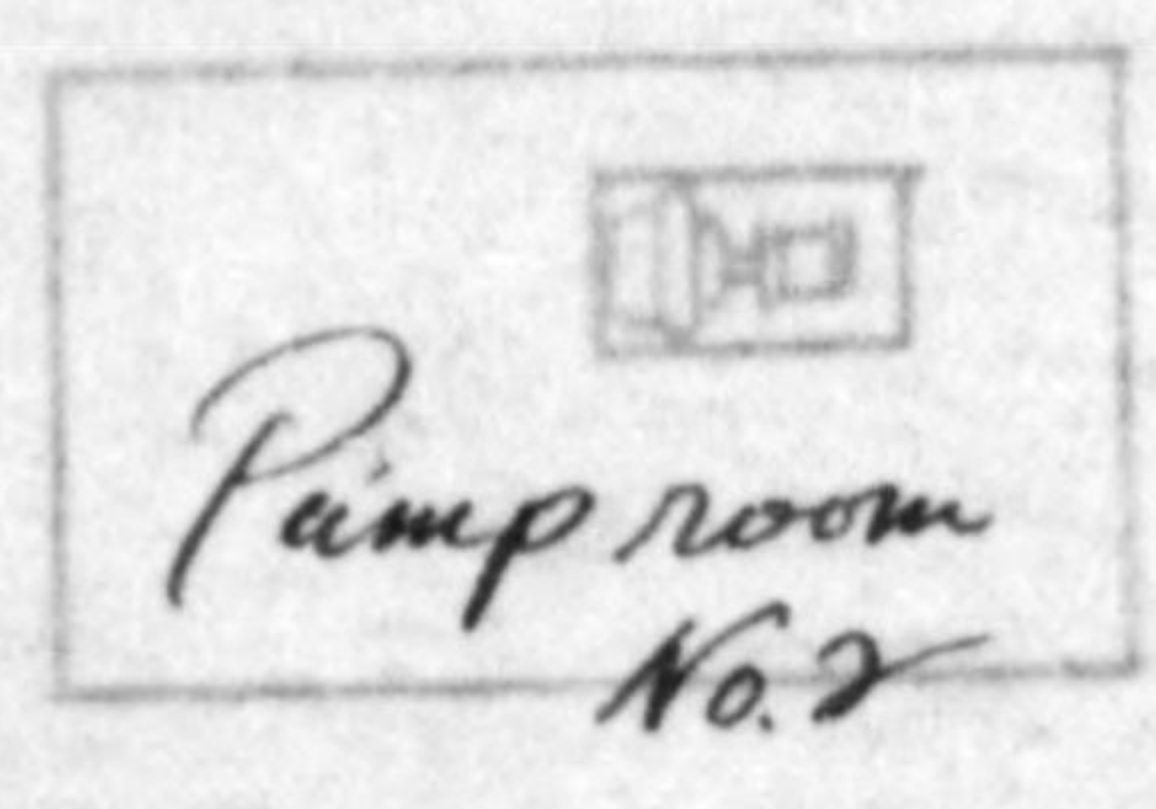
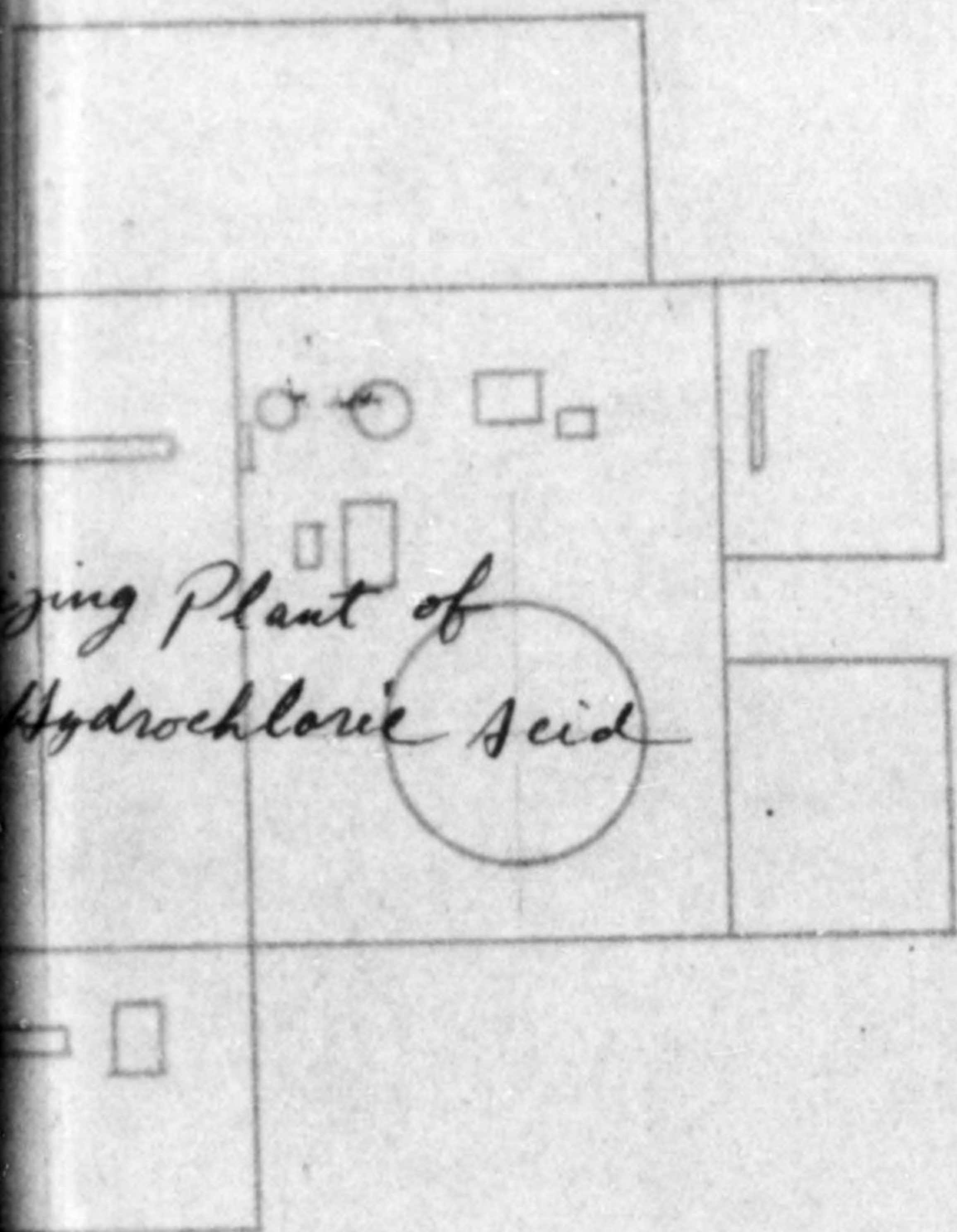
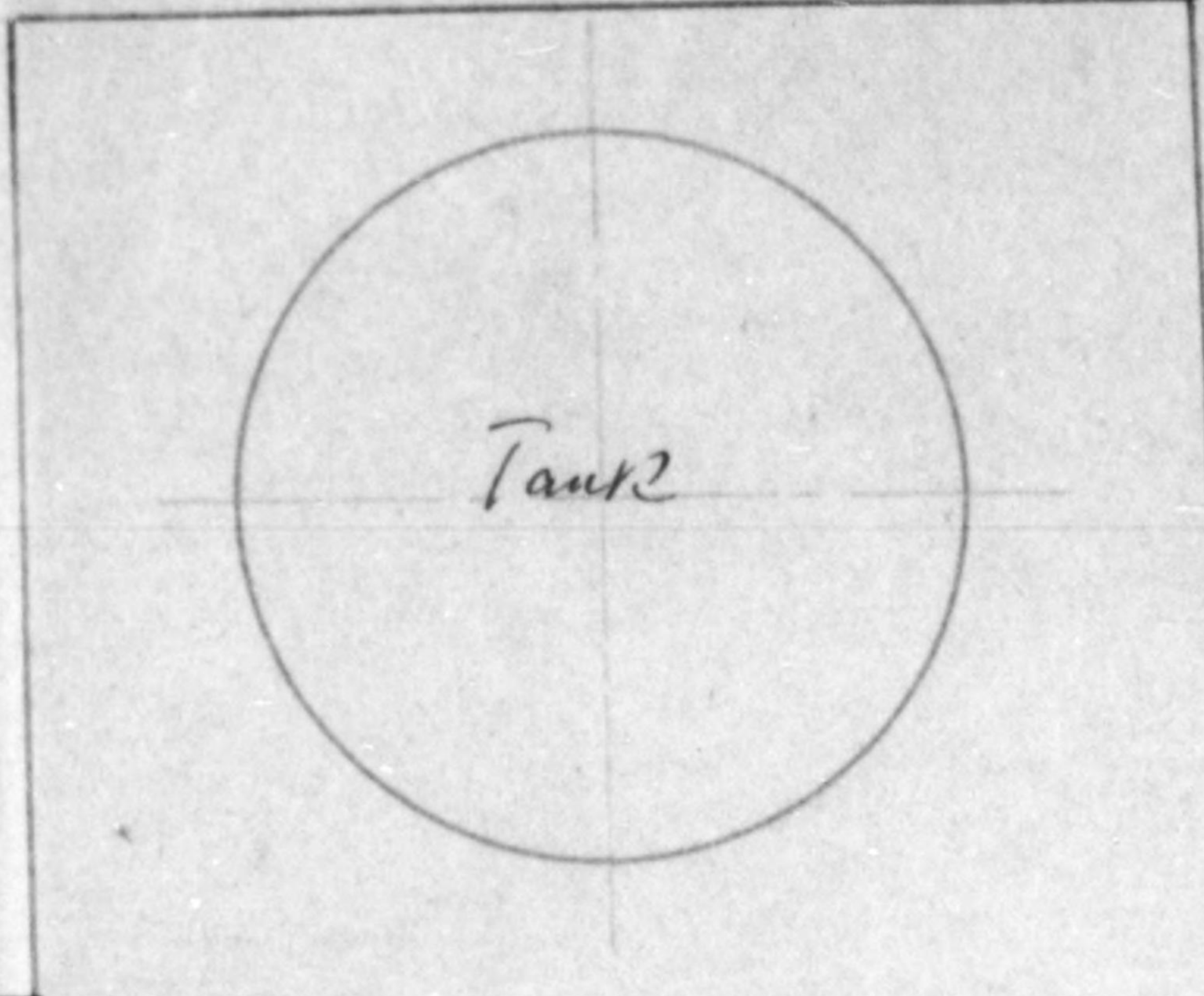




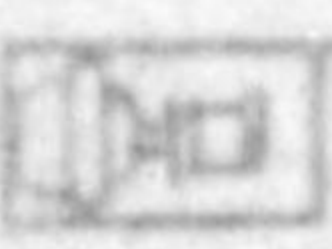
Synthetic Rubber Plant

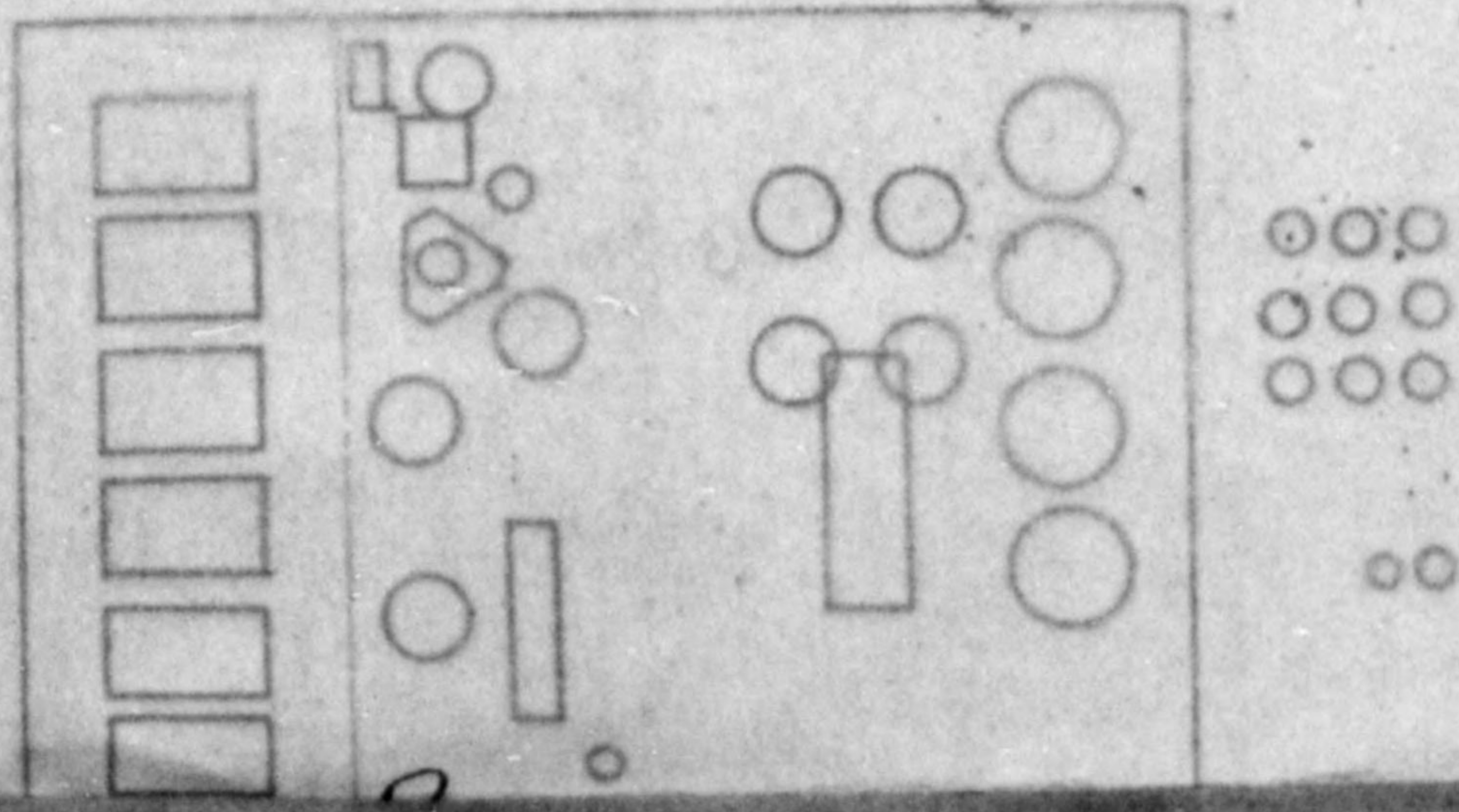
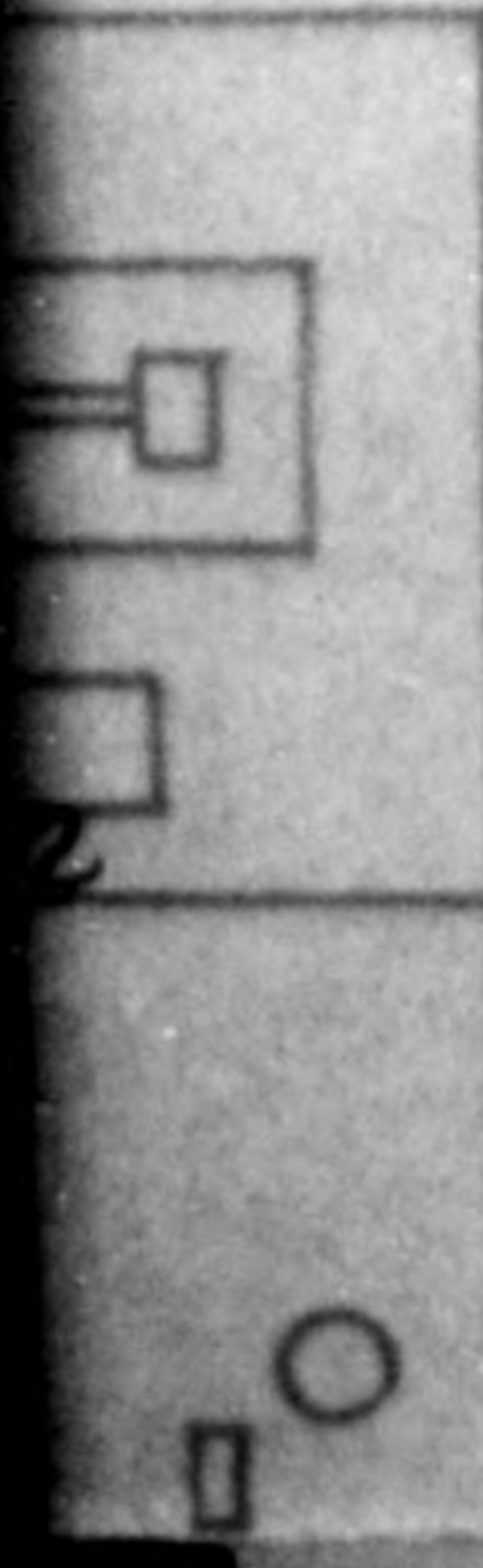
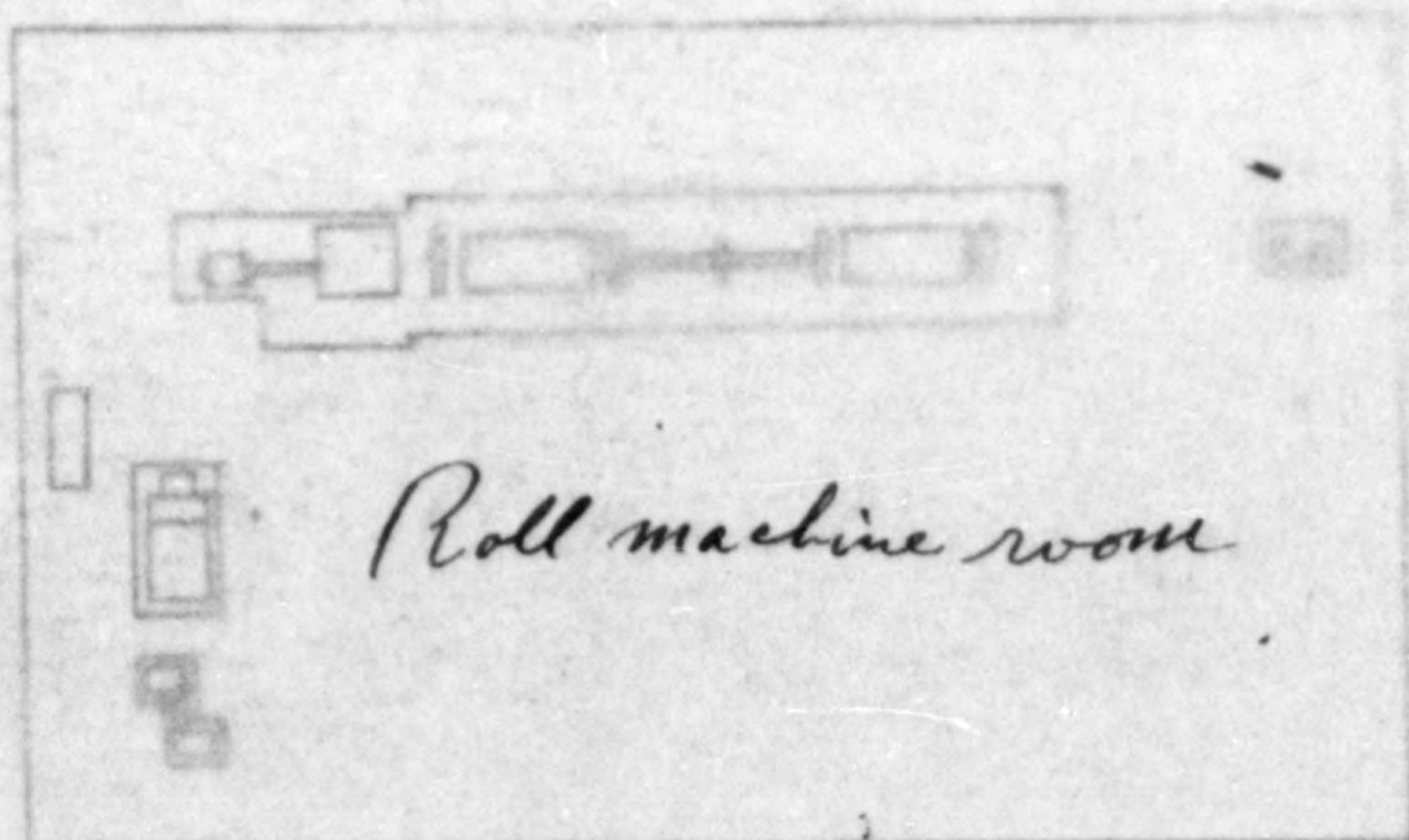




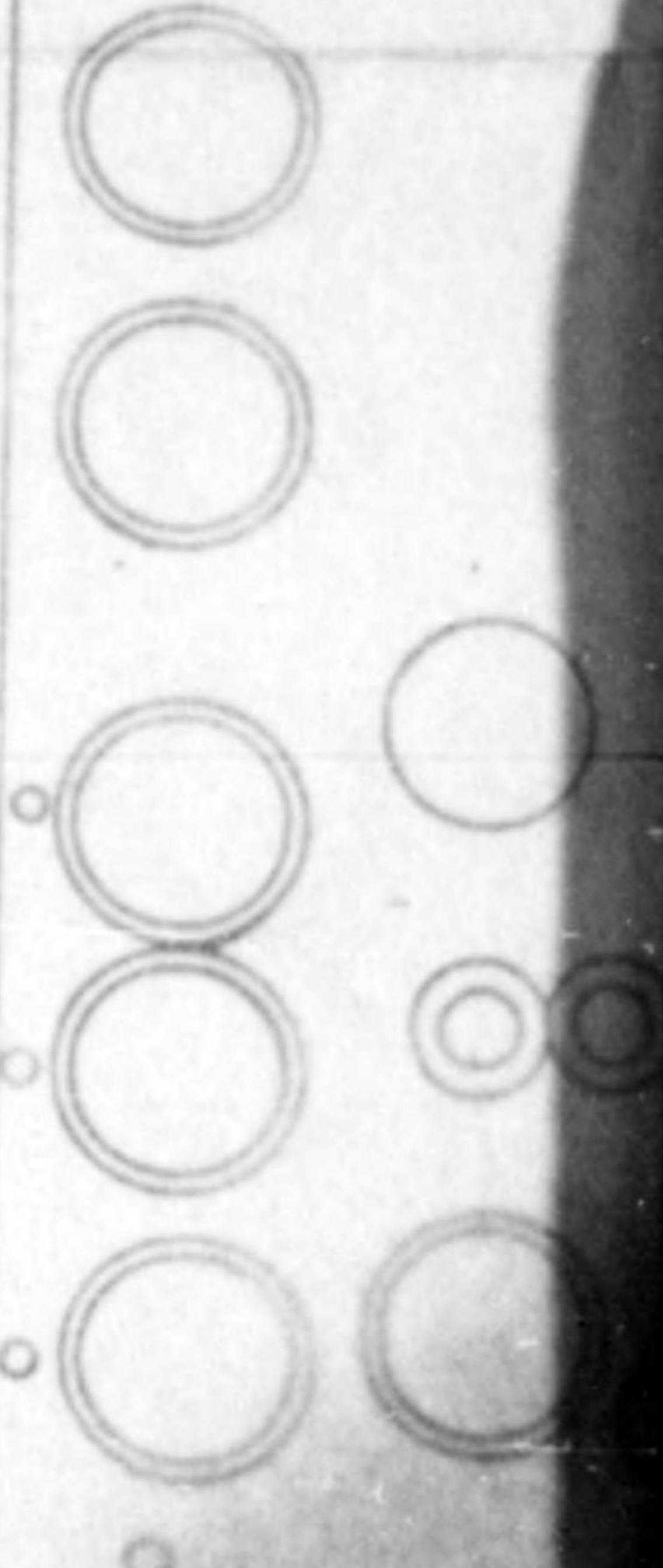
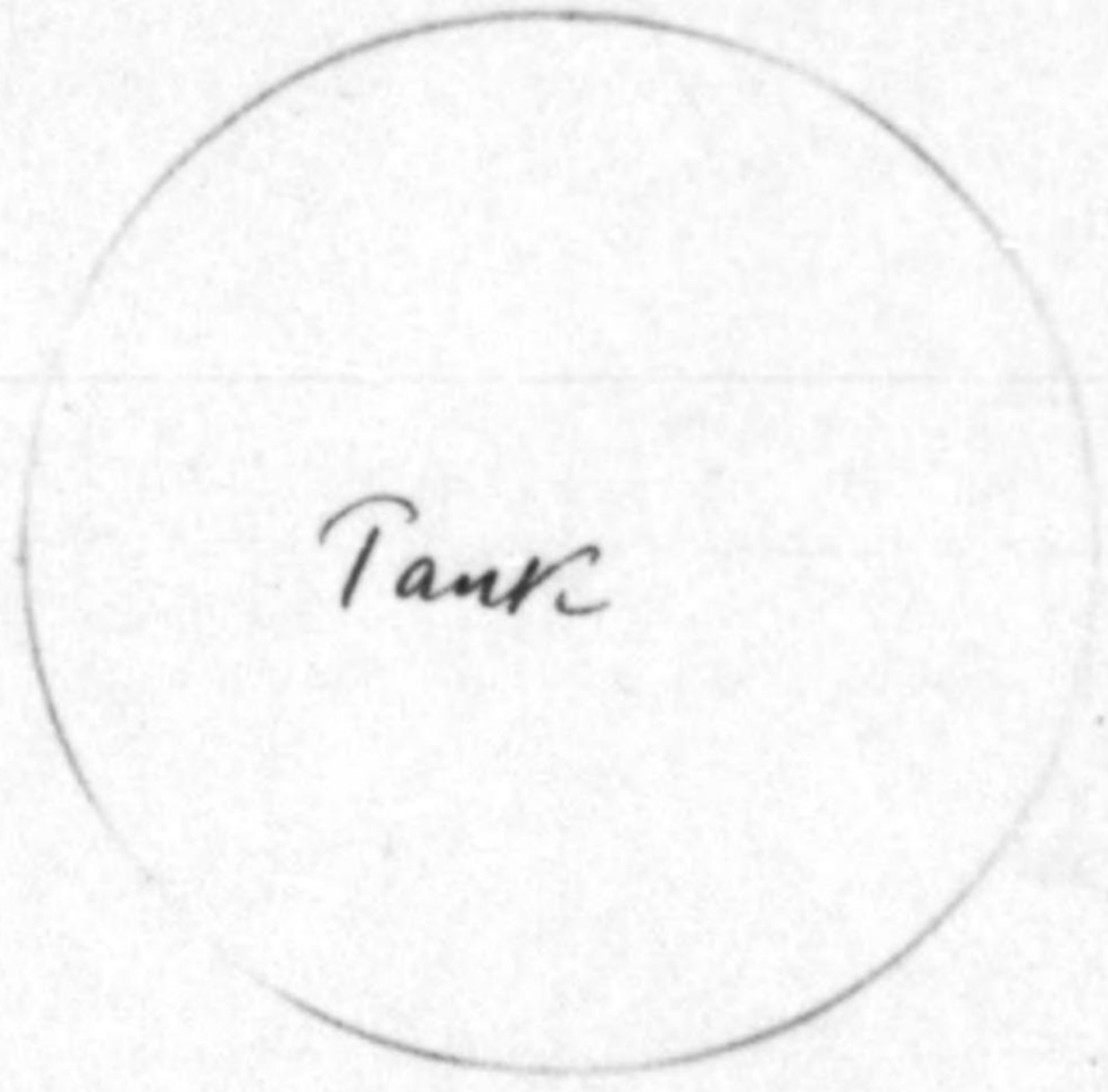
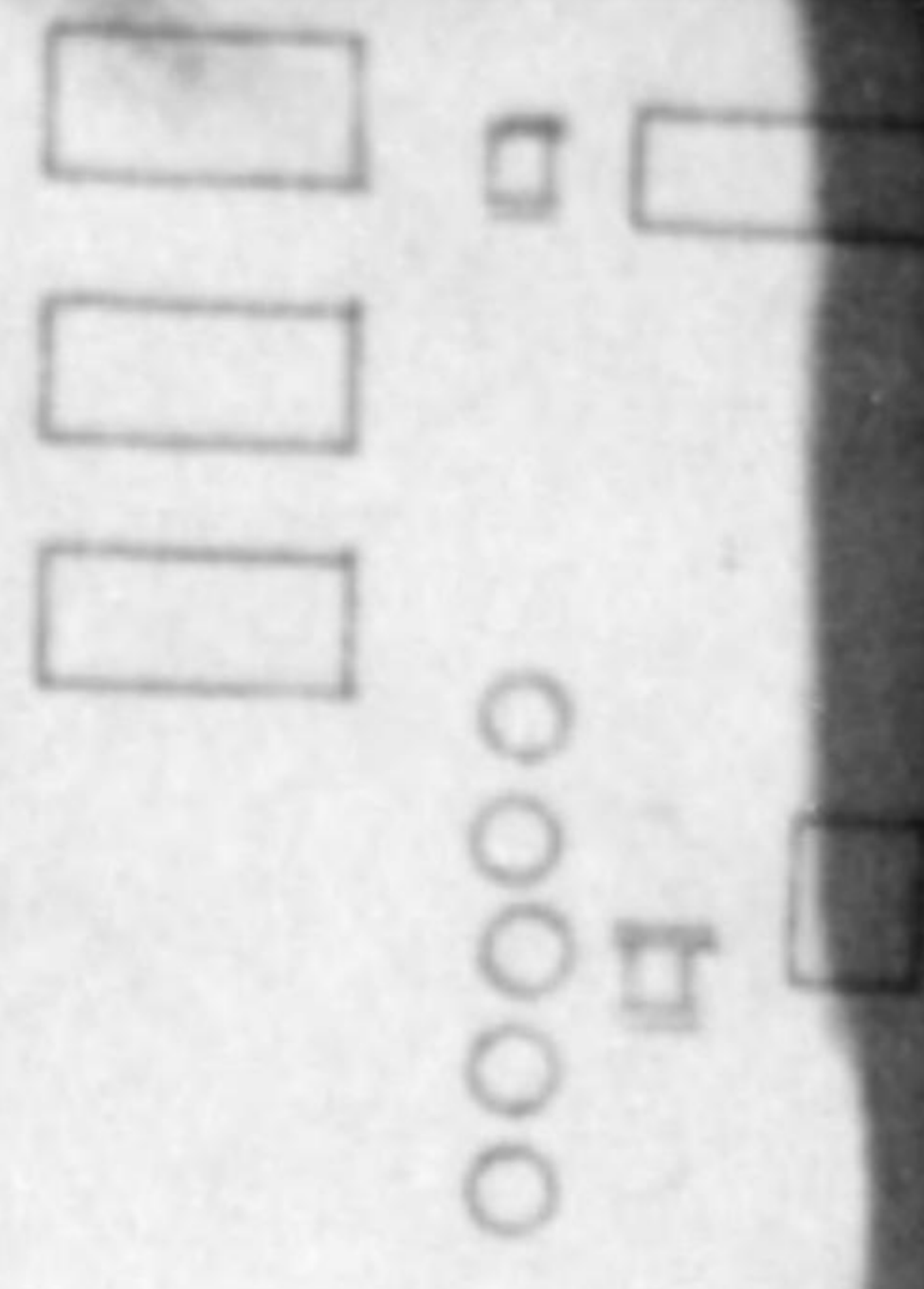
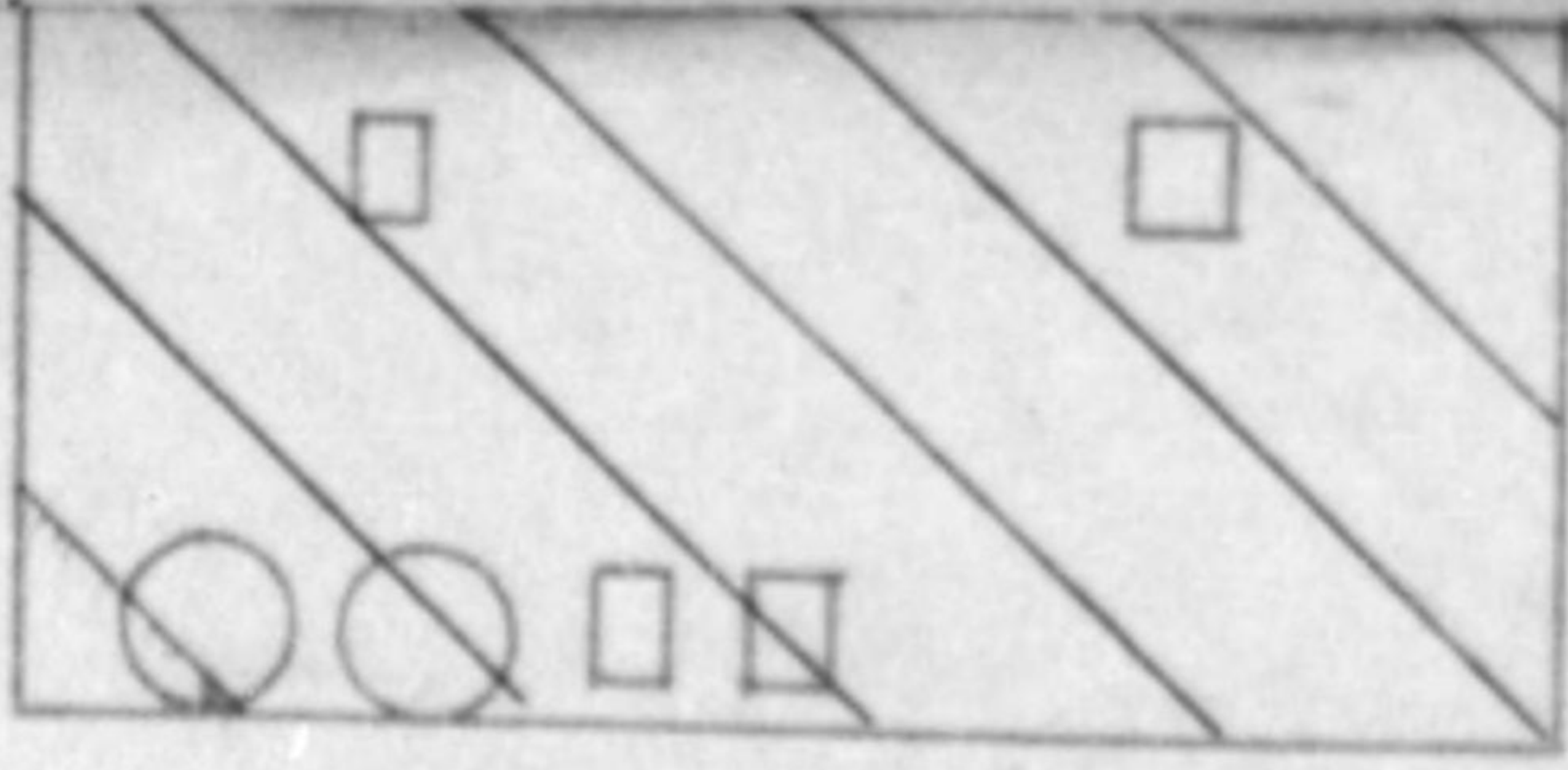




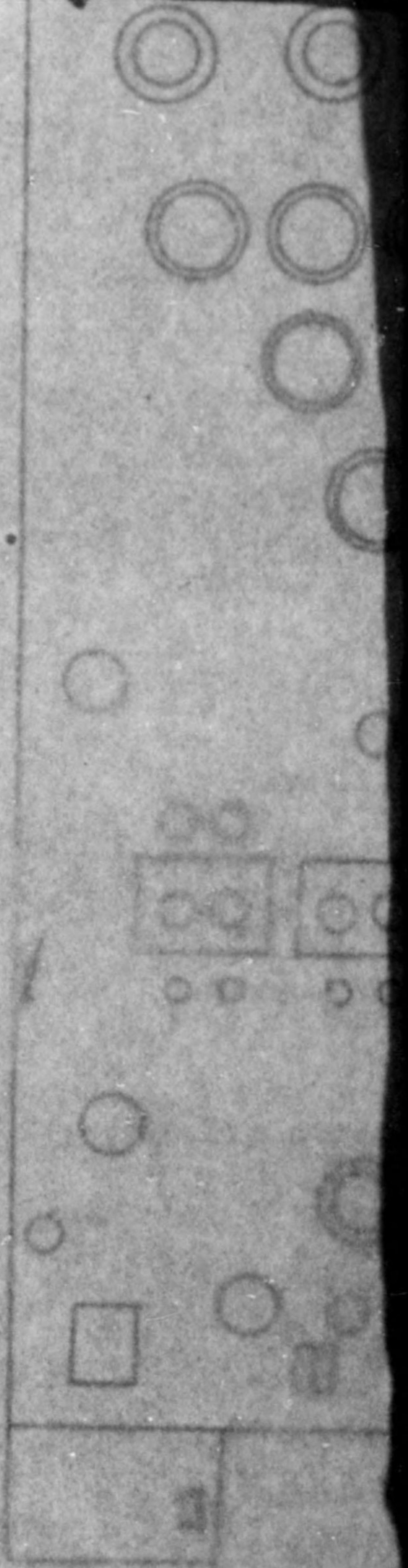
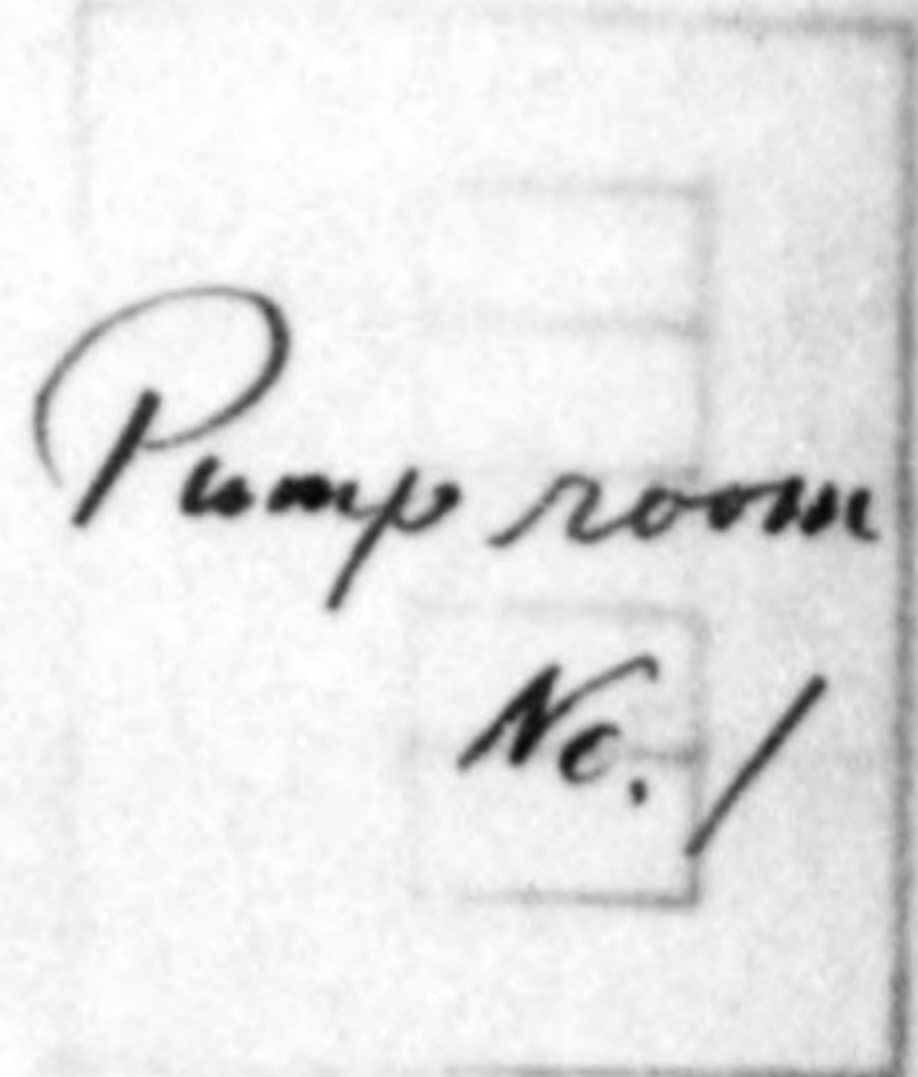
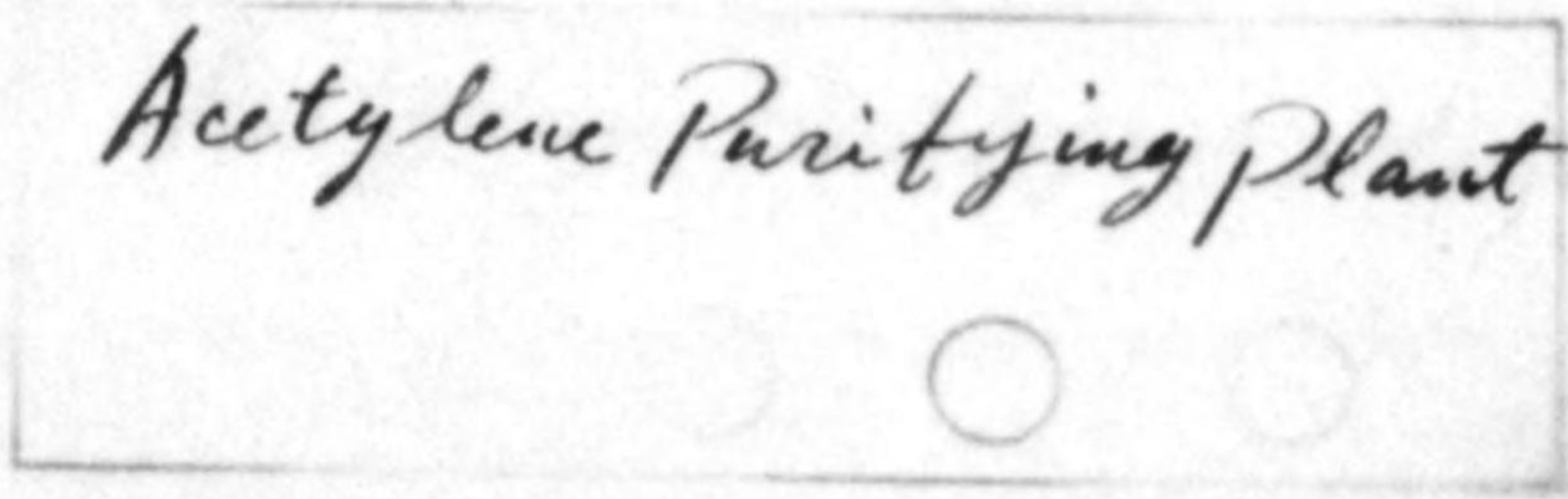
  
Pump room  
No. 2



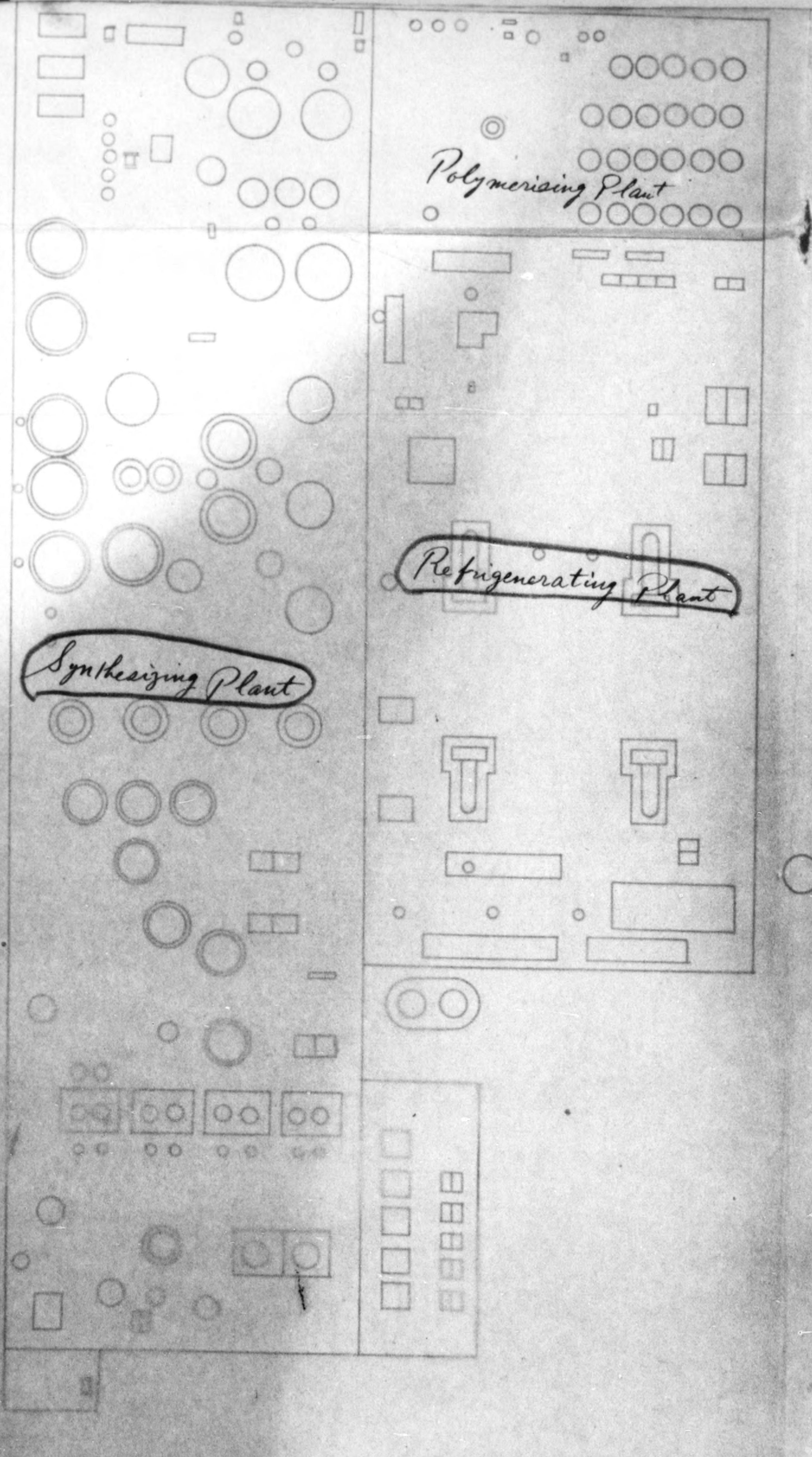




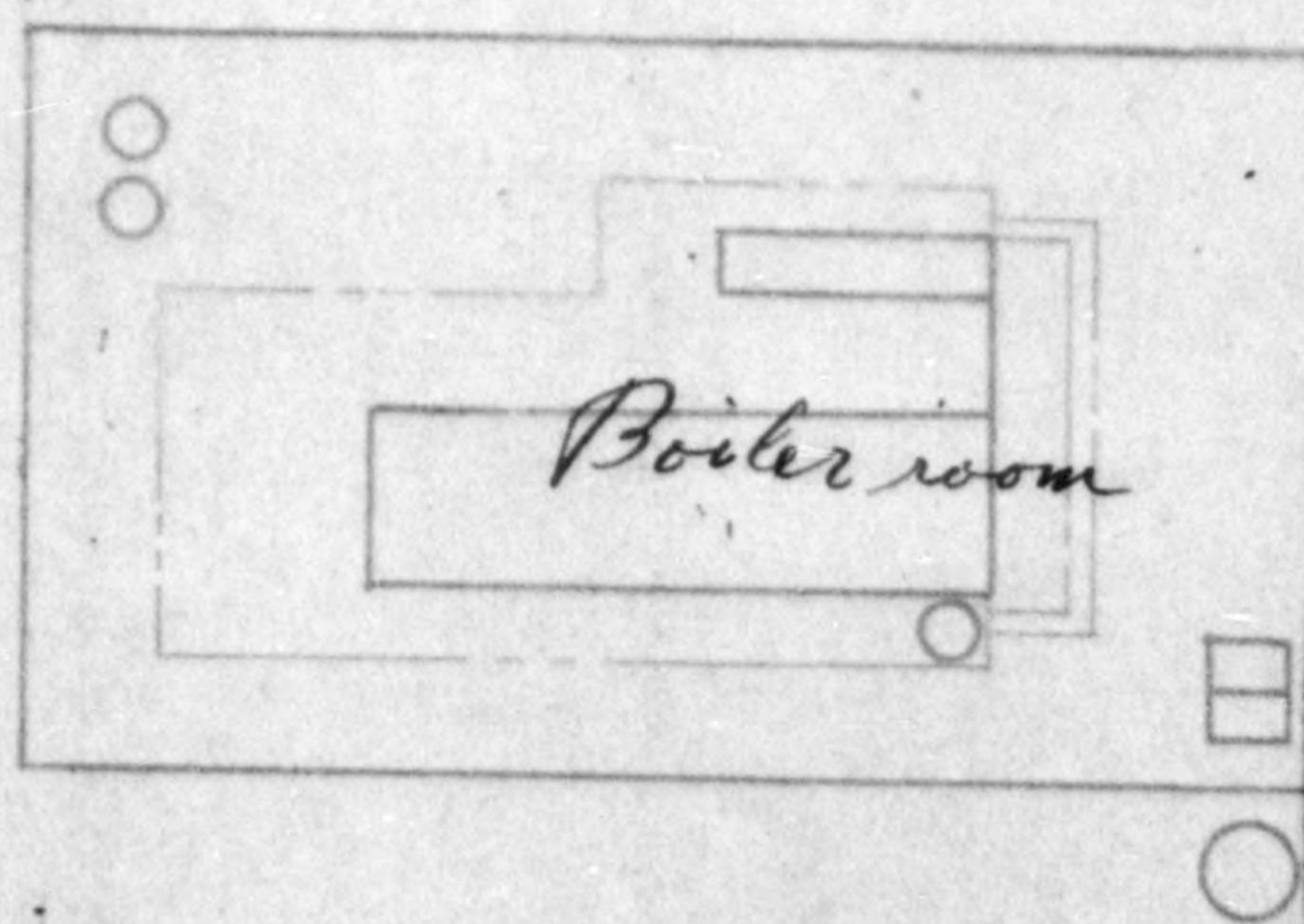
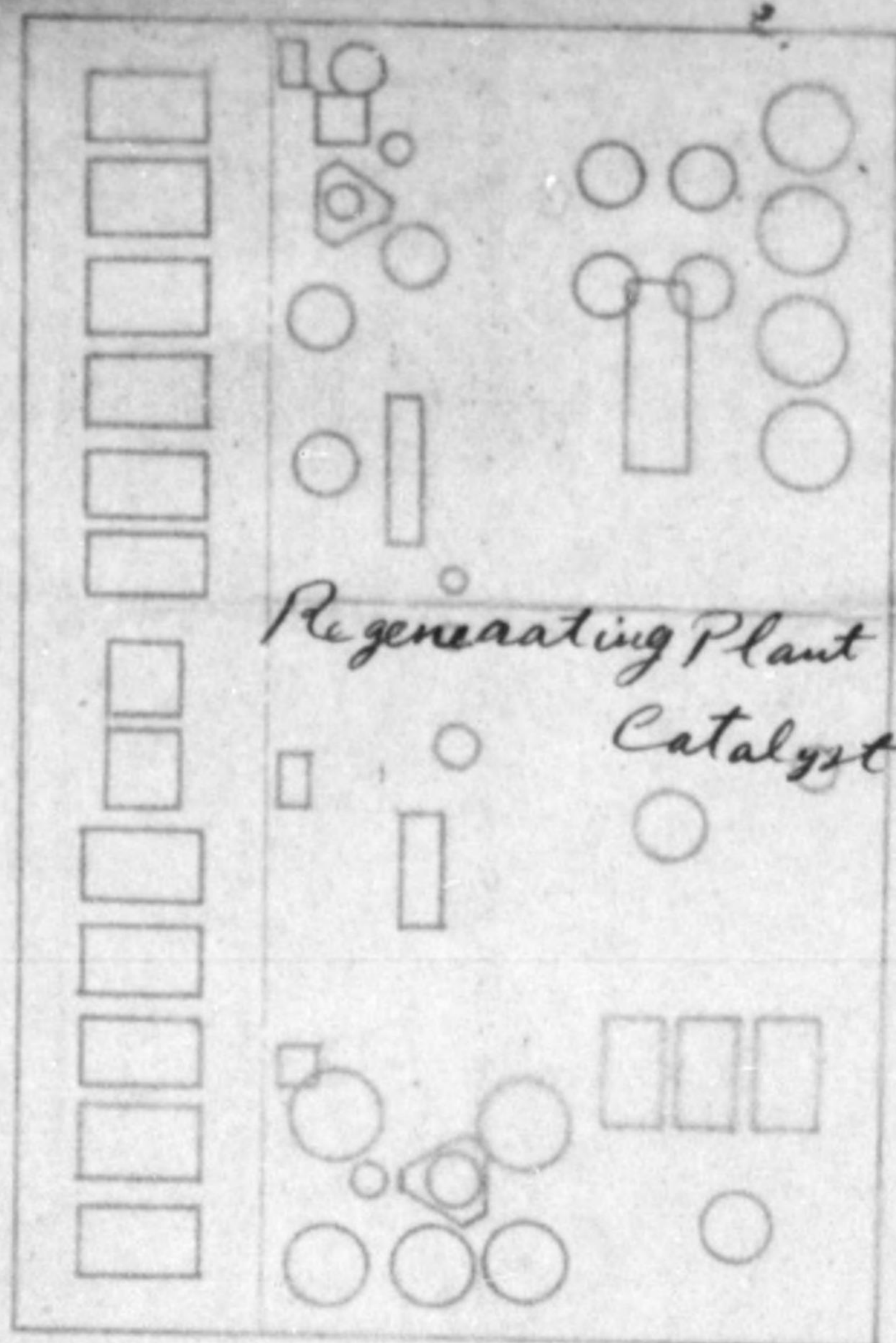
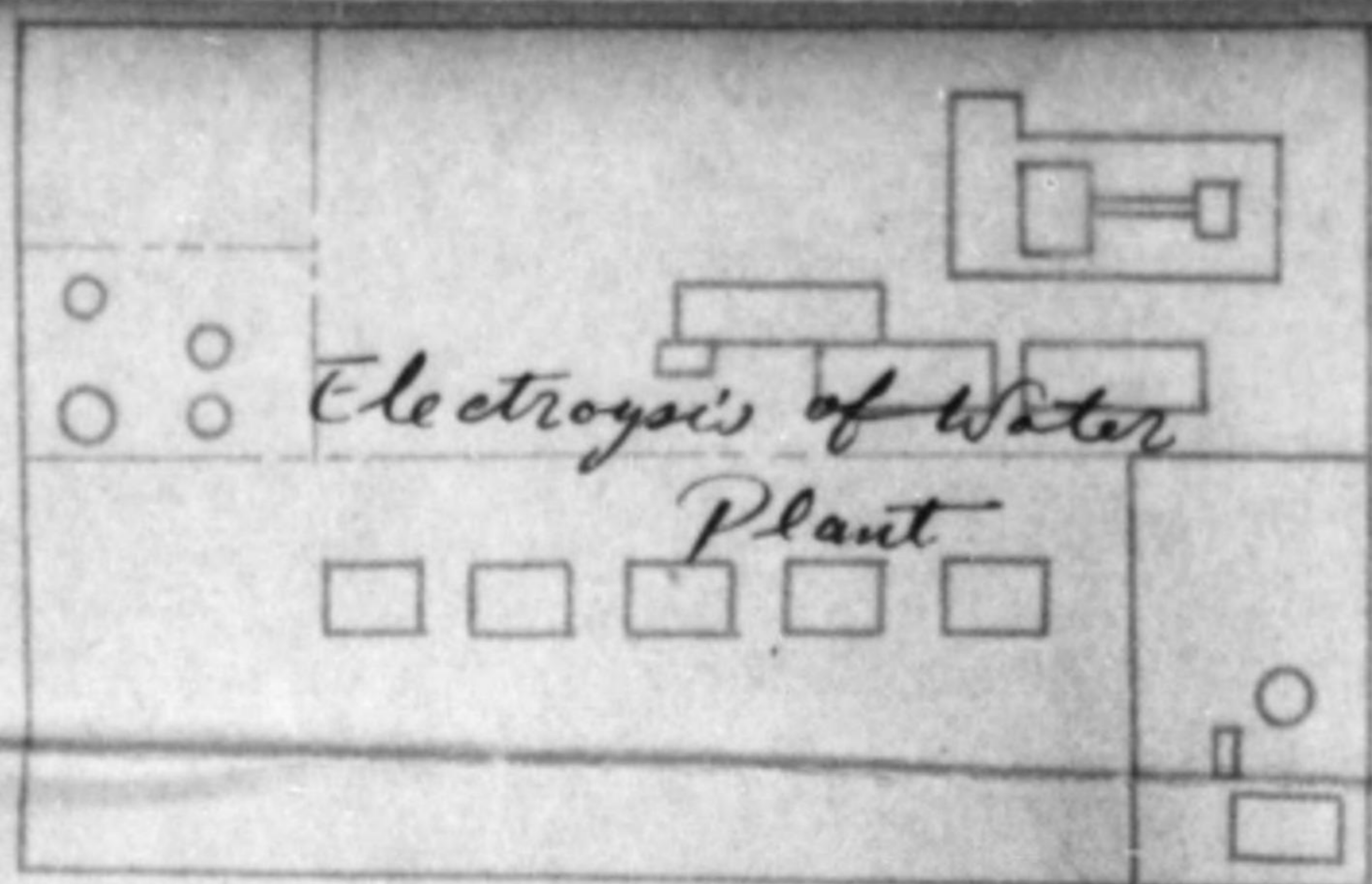
Synthesis



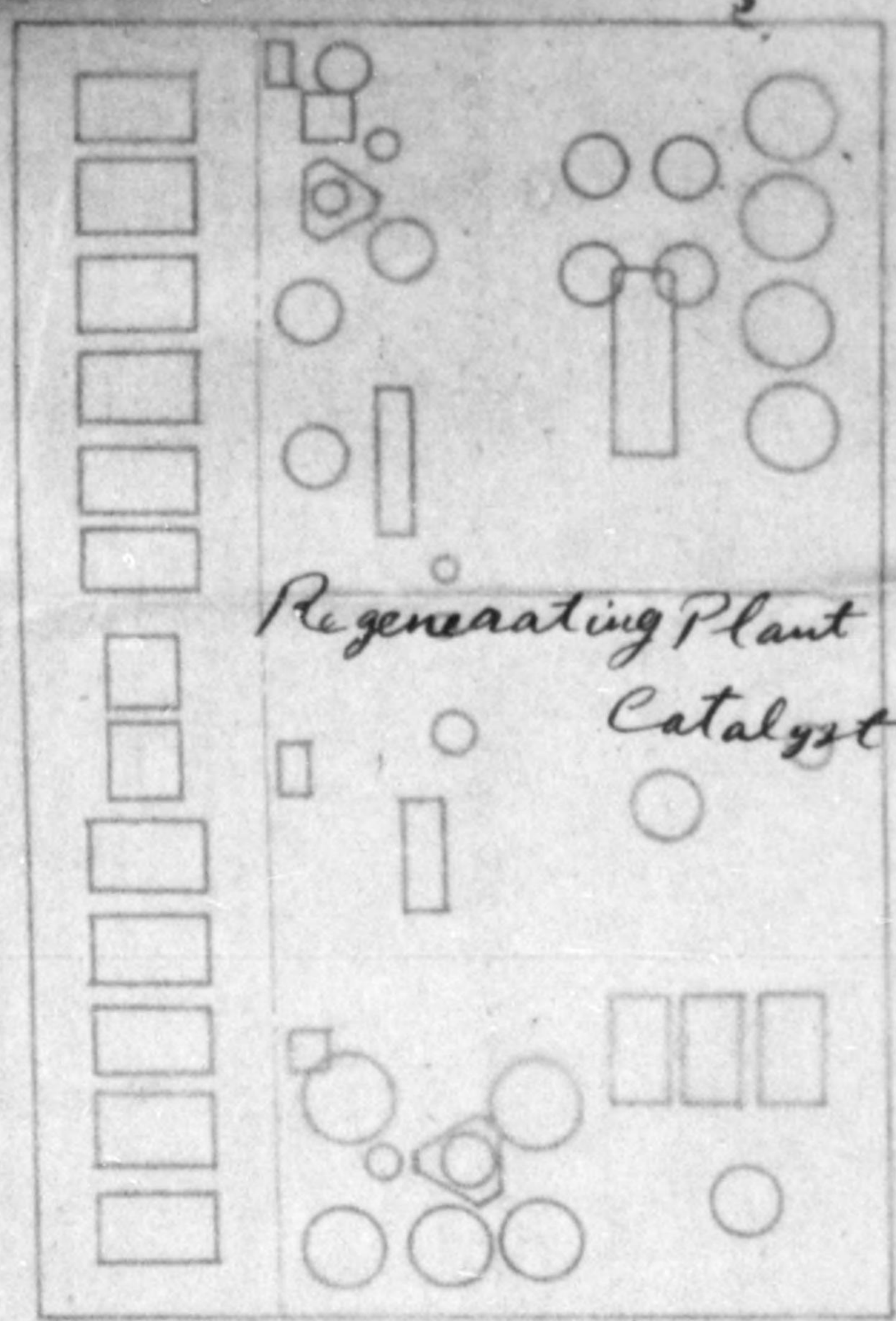




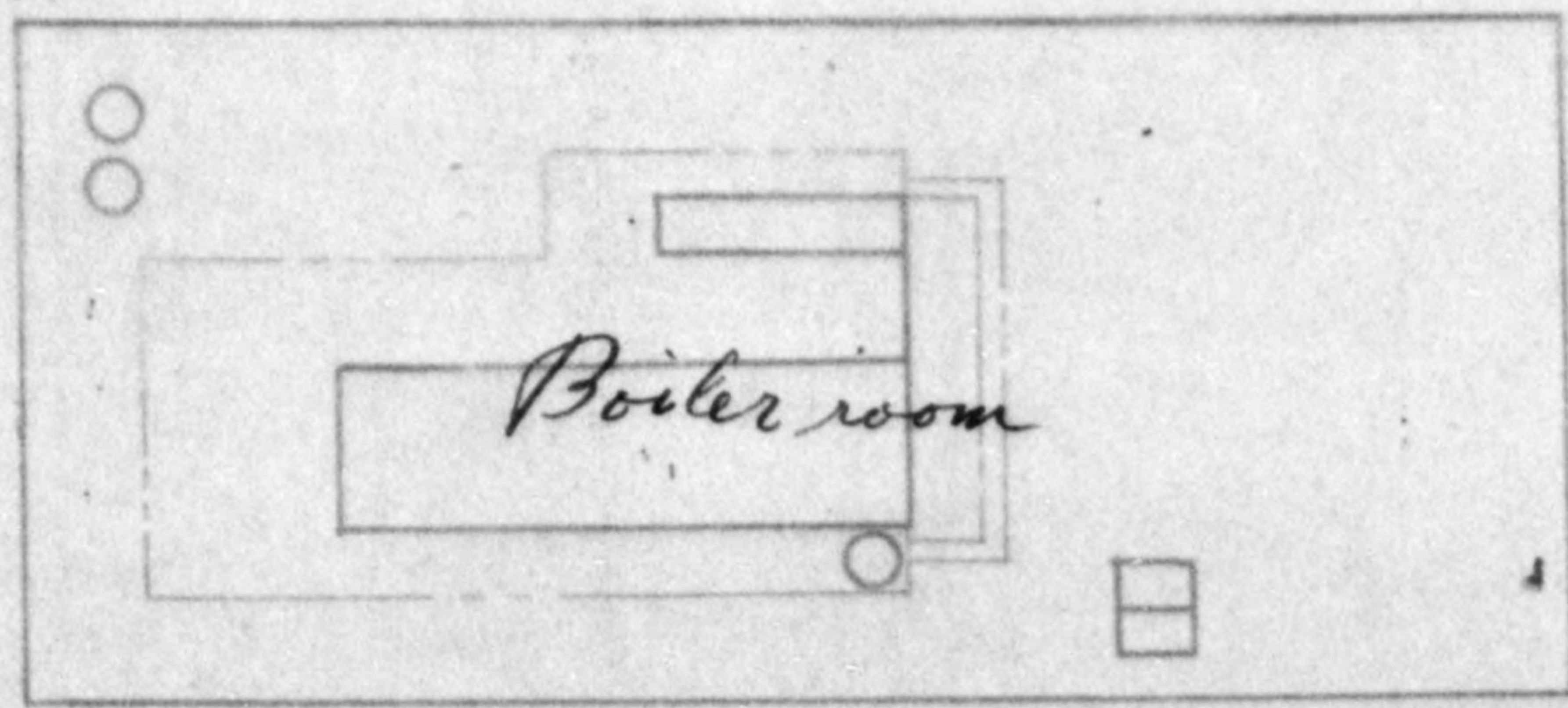








*Regenerating Plant of Catalyst*



*Boiler room*



(49)-1000

HEADQUARTERS  
TOYAMA MILITARY GOVERNMENT TRAM  
APO 713

EM/sn

15 April 1947

**SUBJECT:** Removal of Land and Buildings from Reparations**TO :** Commanding General, I Corps, APO 301  
**ATTN:** Military Government  
(Thru Channels)

1. The synthetic rubber plant of the Nippon Carbide Industrial Co. at Uozu had been placed under reparational custody and control in compliance with SCAPIN 1277 dated 17 October 1946.

2. The greater portion of the factory, which is not on reparations, is presently engaged in the production of fertilizer and is expanding its facilities for increased production thereof. Thus the need of an adequate repair shop is of sufficient importance for the proper functioning of the machinery.

3. The inclosed application requests the removal from reparations of the land and building known as the "acetylene generating plant," which is marked with red lines in Annex 3 of inclosure. This building at the present time contains thirteen machines which will be removed to the nearby "synthesizing and refrigerating plants," which are also shown on Annex 3 of inclosure.

4. The maintenance, care and preservation of the above thirteen machines will in no way be adversely prejudiced after removal, and the "acetylene generating plant" will be completely separated by a fence as shown on Annex 3.

5. This office, therefore, recommends that the inclosed application be approved by higher headquarters.

FOR THE COMMANDING OFFICER:

FRANK W. ETHERINGTON  
1st Lt., CB  
Adjutant1 Inclosure:  
4 Copies Application for Exemption of Building



4. a. The activities of the Prefectural Government on Land Reform are believed by this office, to be of the most value and effectiveness because the instructors sent out by them are better qualified to explain the law and are able to work in closer liaison with the Prefectural Land Commission.
- b. The instructions and activities of the Agricultural Association and the Farmers Union although are of some value, the chance of conflicting interpretations of the law, which may occur, are too great to be of any large value.

FOR THE COMMANDING OFFICER:

FRANK W. ETHERINGTON  
1st Lt., CE.  
Adjutant



To: Capt. Eugene Moss  
Toyama Milt. Govt. Team

Through: Toyama Prefectural Office

From: Uosu Factory,  
The Nippon Carbide Ind. Co., Ltd.

Subject: Application for approval to the Electrification  
Plan of Boiler.

Apr. 4th, 1947

It is requested that you are good enough to grant approval  
to this Application.

Per Superintendent

Applicant Sueo Takamura

Title: Chief of the Affairs Section,  
The Nippon Carbide Ind. Co., Ltd.



### Outline Description of Electrification Boiler

The Boiler, soon after the termination of the War, was converted into the equipment of manufacturing medicines and whole rubber boots, and was being used uninterruptedly, when it was designated as an interim reparation equipment, and the approval of conversion for the purpose of manufacturing above mentioned articles was granted without delay. Recently owing to the difficulty of obtaining coal as the fuel of the boiler, the reason of which is the shortage of it all over Japan, the manufacture of the articles, for which the equipments have been converted, was greatly interrupted.

As the counter-measure, the electrification of the boiler is planned and fortunately, the boiler can be run by both coal and electricity. And if necessary, the electrified boiler can be easily be changed into an ordinary boiler again. is heated.

We entreat your office to approve the change and continuous use of the machine in such conditions mentioned below:-

1. Main point of Change

Squirrel-cage electrode which is 3-Phase star connection, is put into the body through the cleaning hole. And the water in the boiler. is heated.

- |                                |   |
|--------------------------------|---|
| 2. Time required to complete:  | About a week.                                 |
| 3. Estimated cost:             | ¥. 30,000.00                                  |
| 4. Electric pressure capacity: | 3,300Volt, 800K.W.A.                          |
| 5. Generated steam capacity:   | 300 M <sup>3</sup> /hour 4 Kg/Cm <sup>2</sup> |

(Quite the same as that of the boiler Exclusively for coal use)



To: Capt. Eugene Moss  
toyama milit. Govt. Team  
Apl. 4th, 1947

Through: Toyama Prefectural Office

From: Uegu Factory,  
The Nippon Carbide Industrial Co., Ltd

Subject: Application for approval to the plan of Enlarg-  
ing Building, Removing Equipment

It is requested that you are good enough to grant  
approval to this Application.

For Superintendent

Applicant, Sueo Takamura

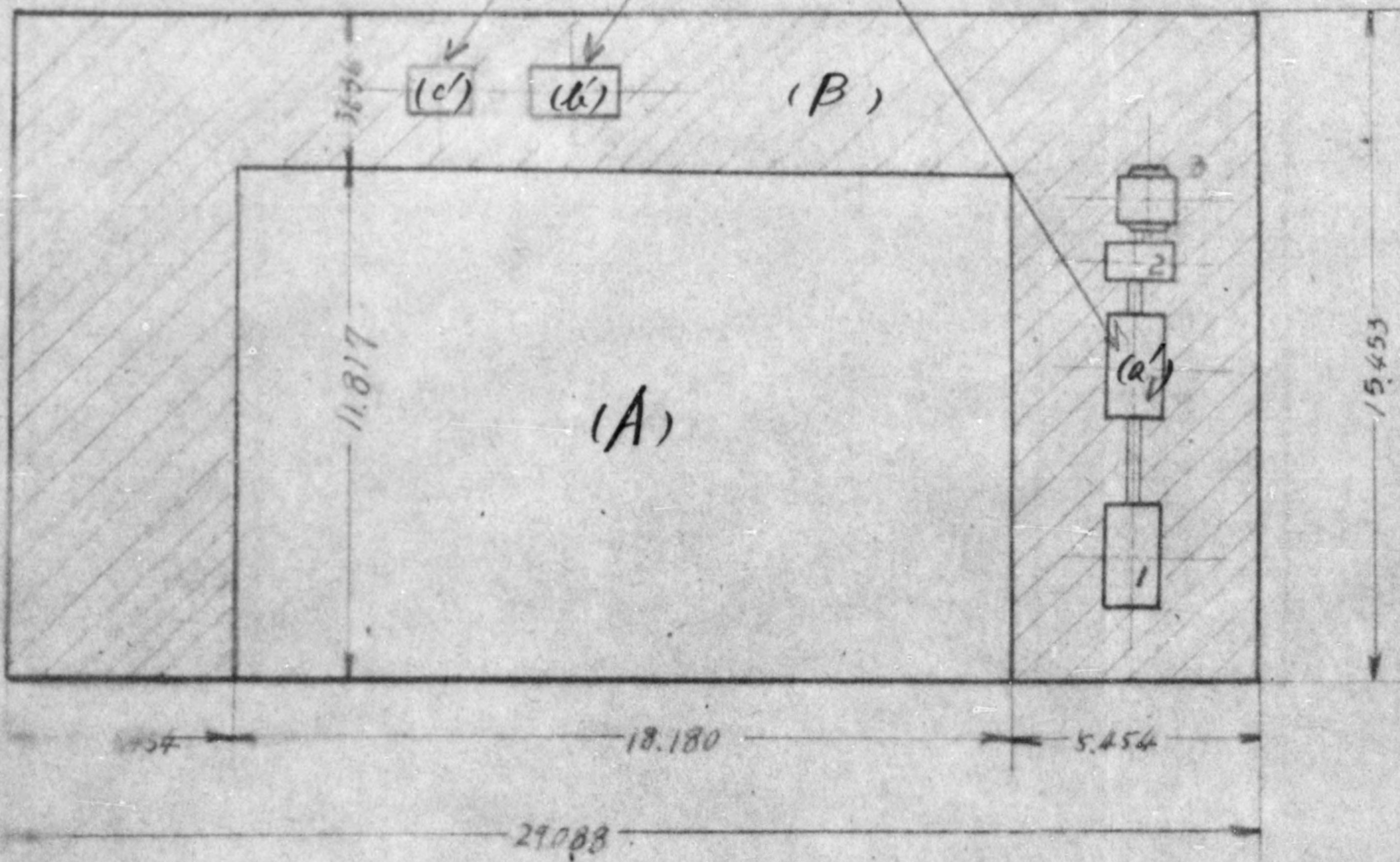
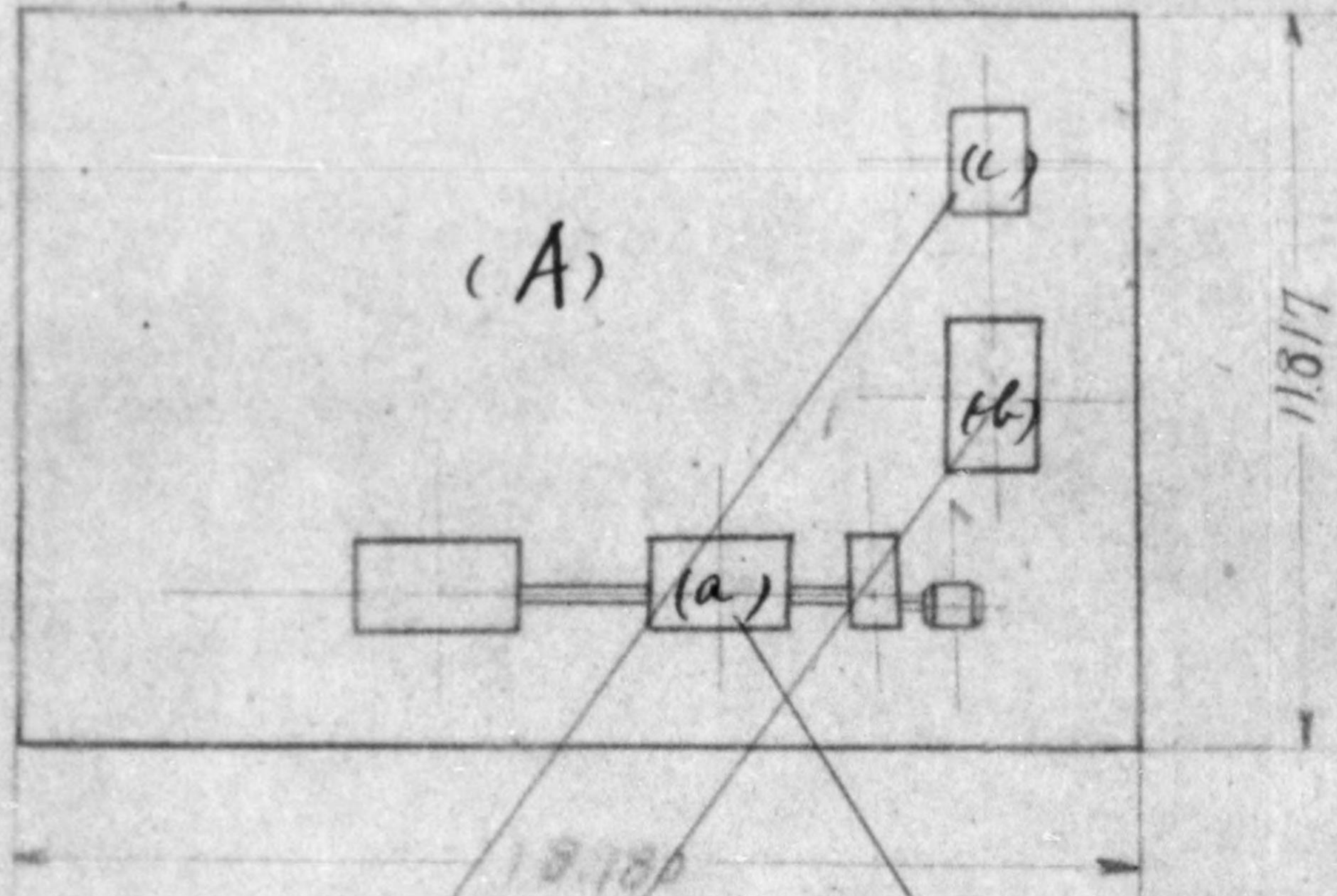
Title: Chief of the Affairs Section,  
The Nippon Carbide Ind. Co., Ltd



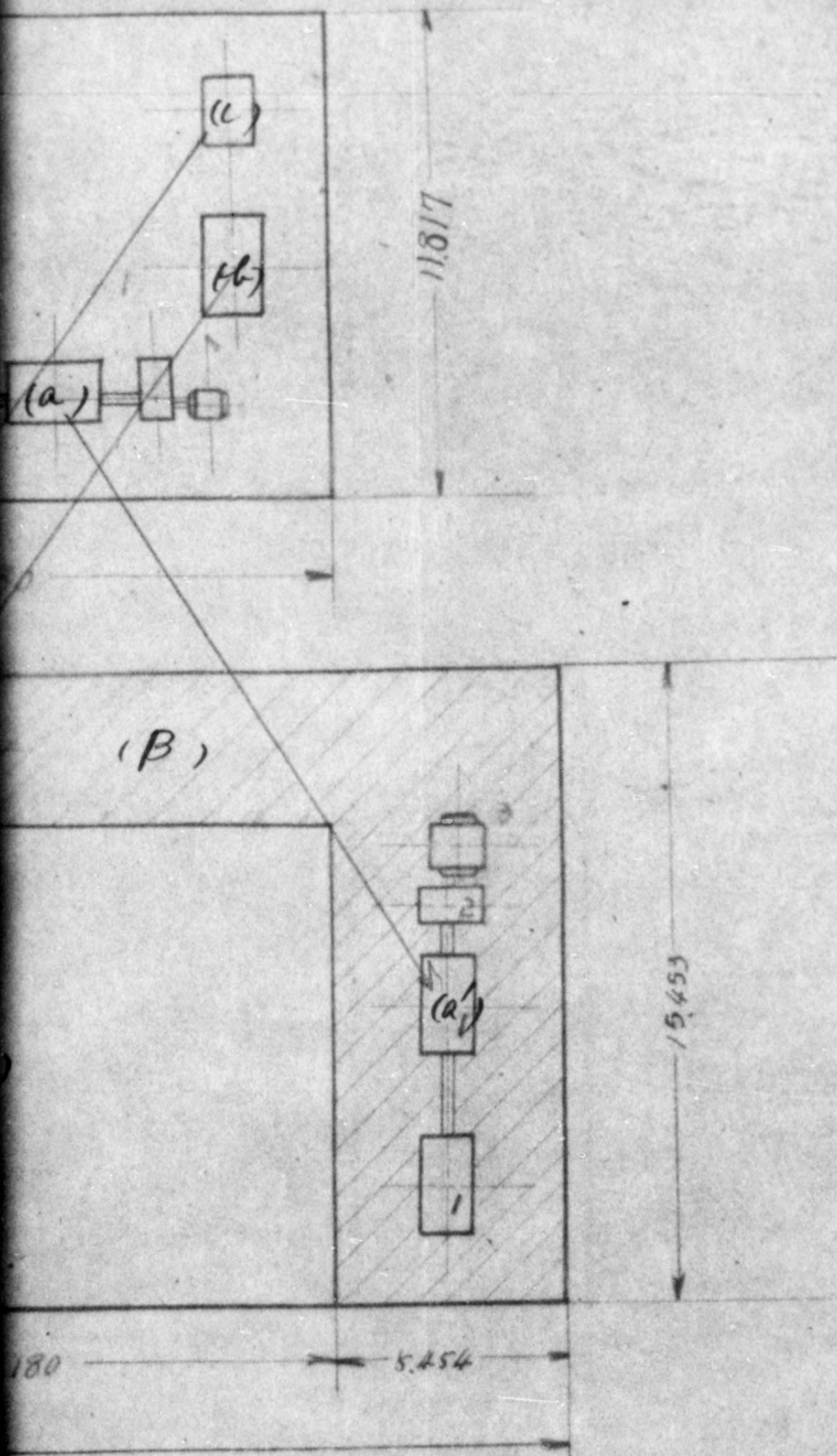




(B)







Roll machine room

(A) Old Roll machine room

(B) Enlarging plant

(a), (b), (c)

Old installing position

(a'), (b'), (c')

(a) → (a')

(b) → (b')

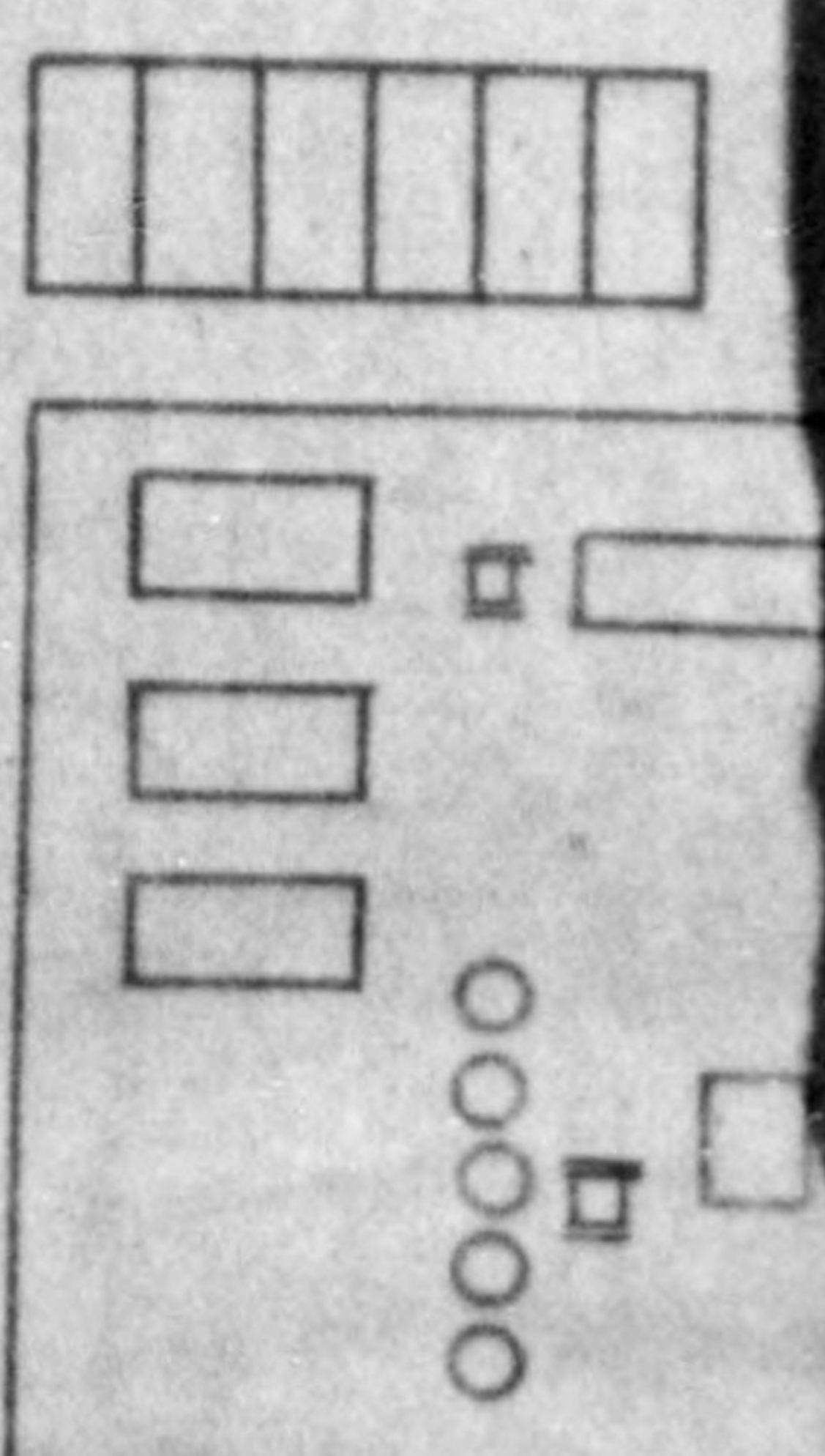
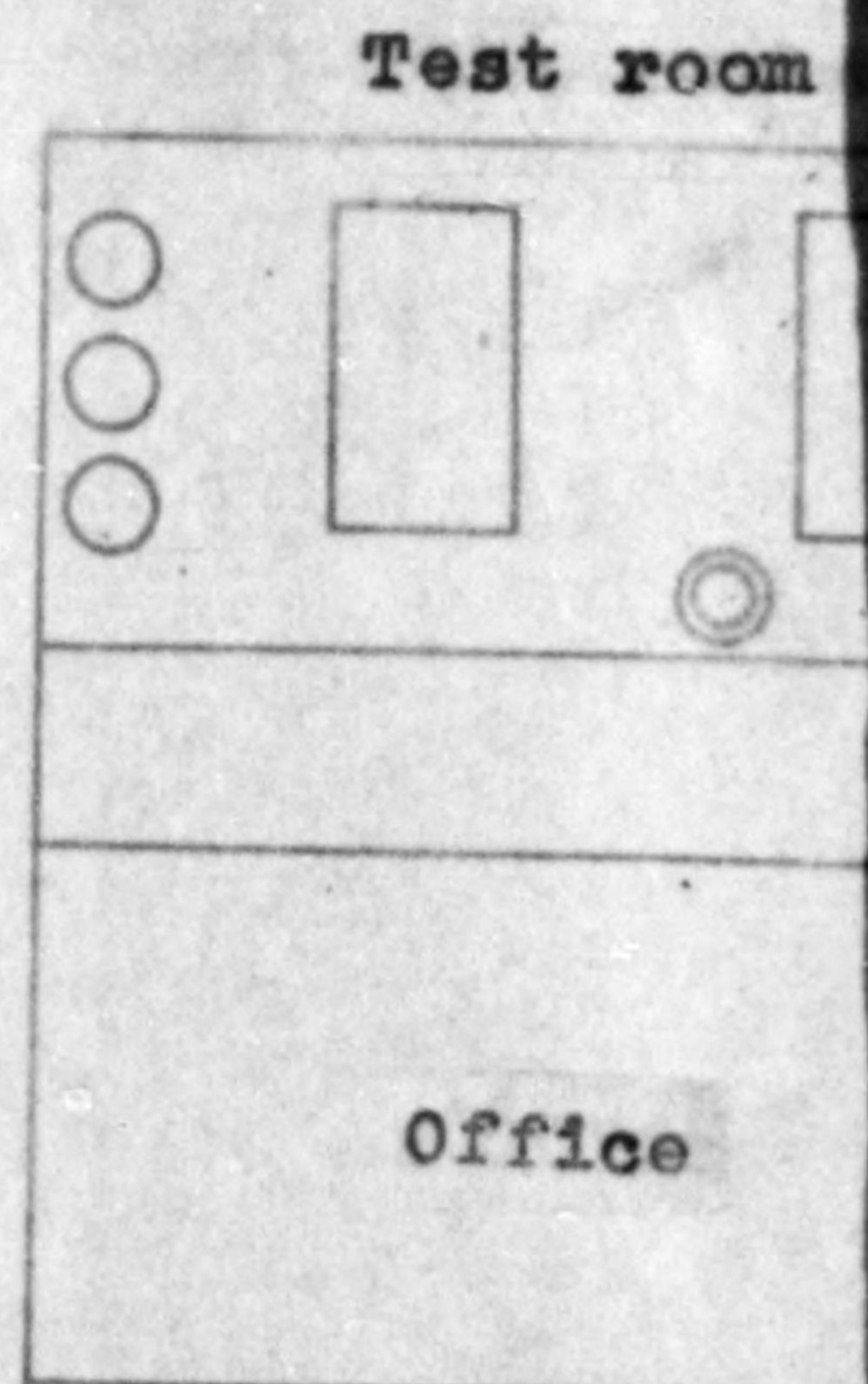
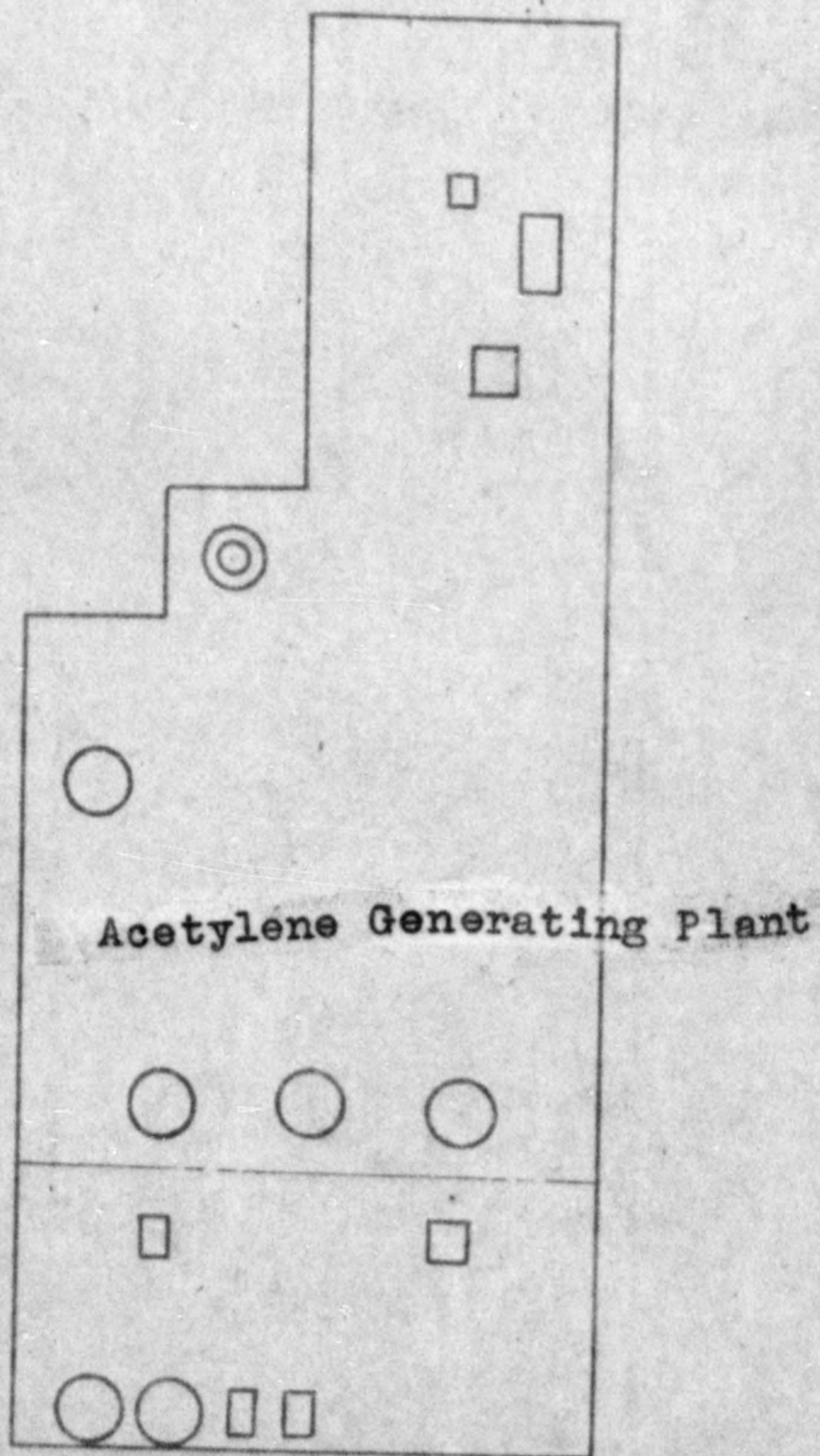
(c) → (c')

Removing position



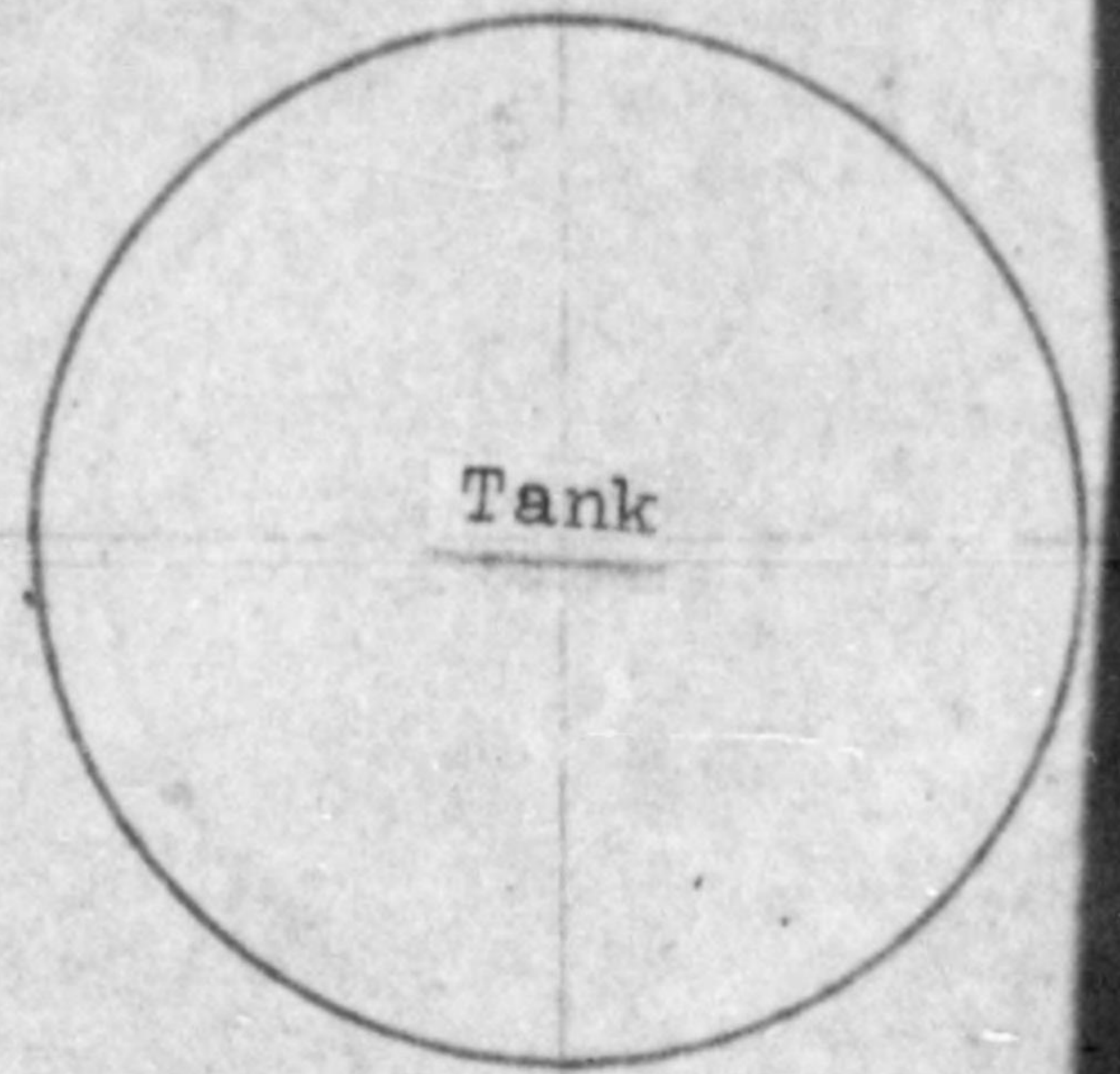
Scale = 1/200

Red Line----- Application Part

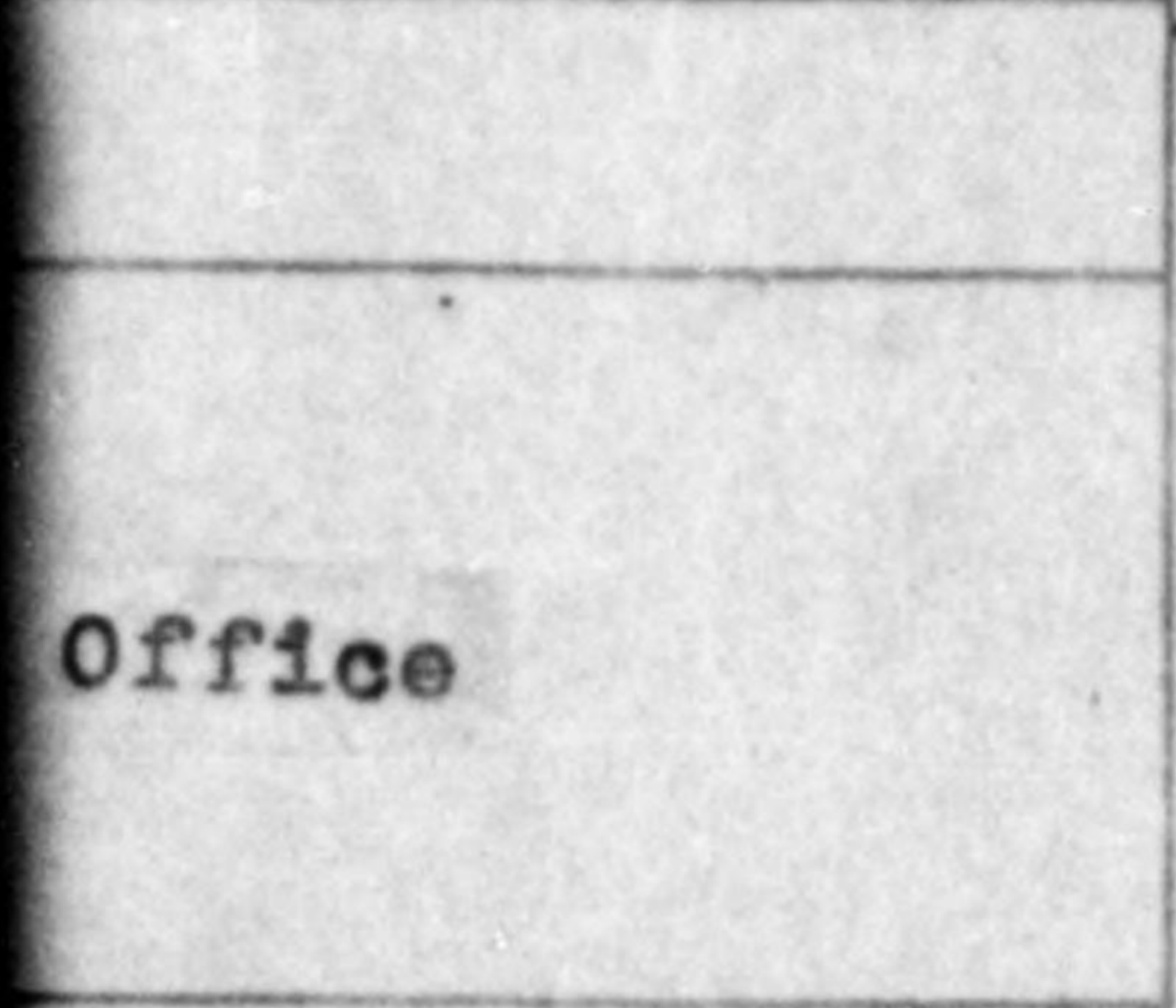
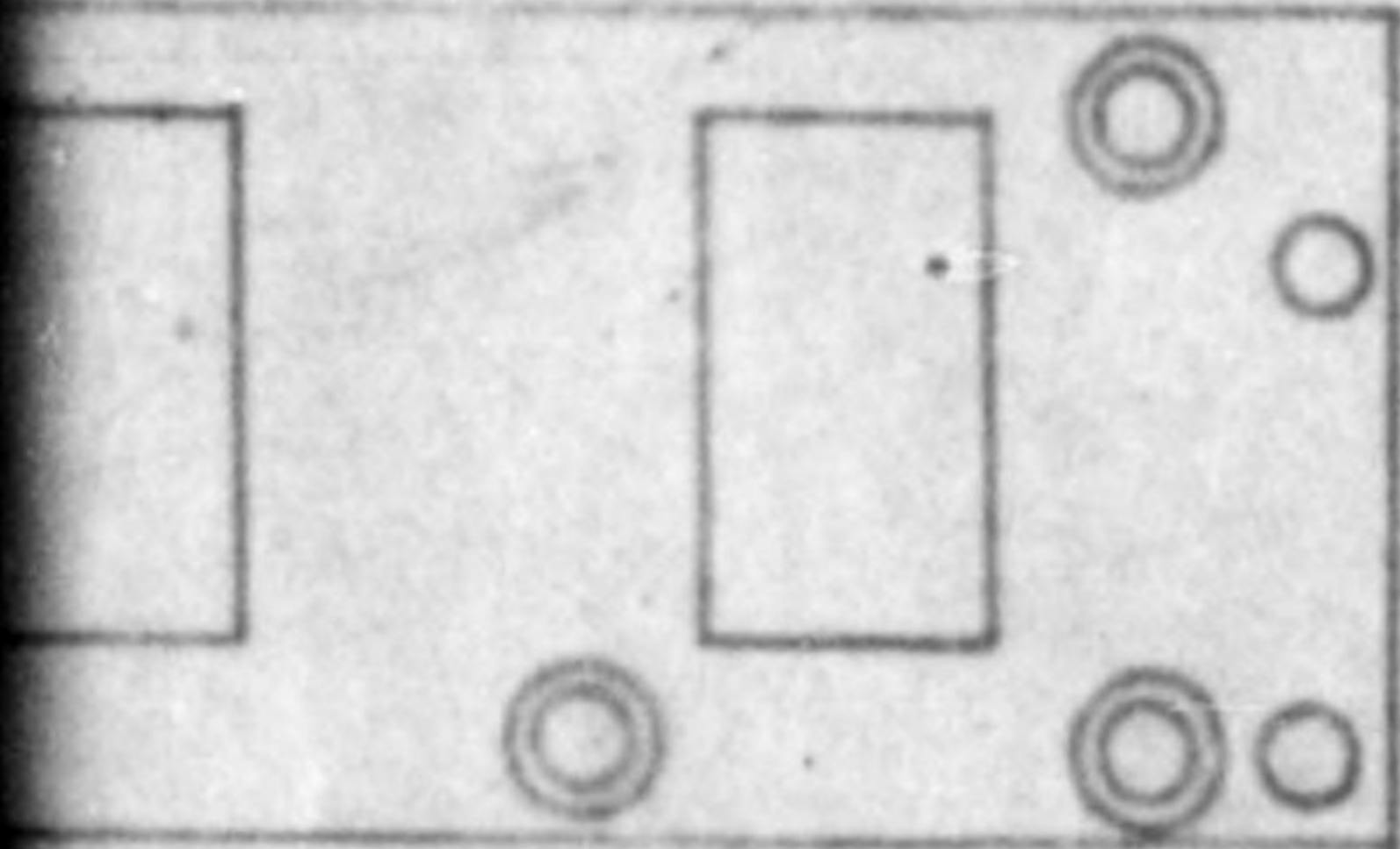




Synthetic Rubber Plant

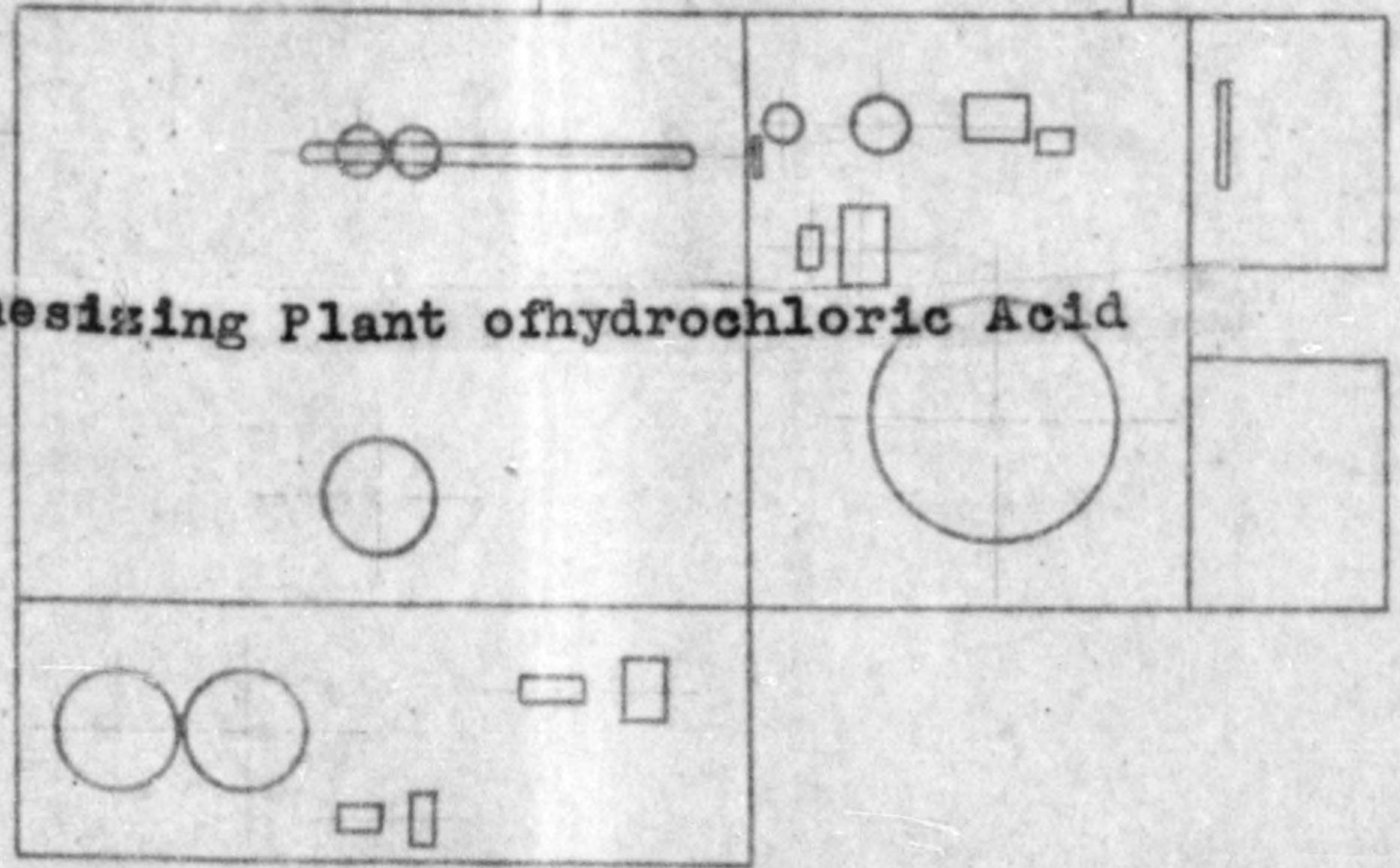


Rest room



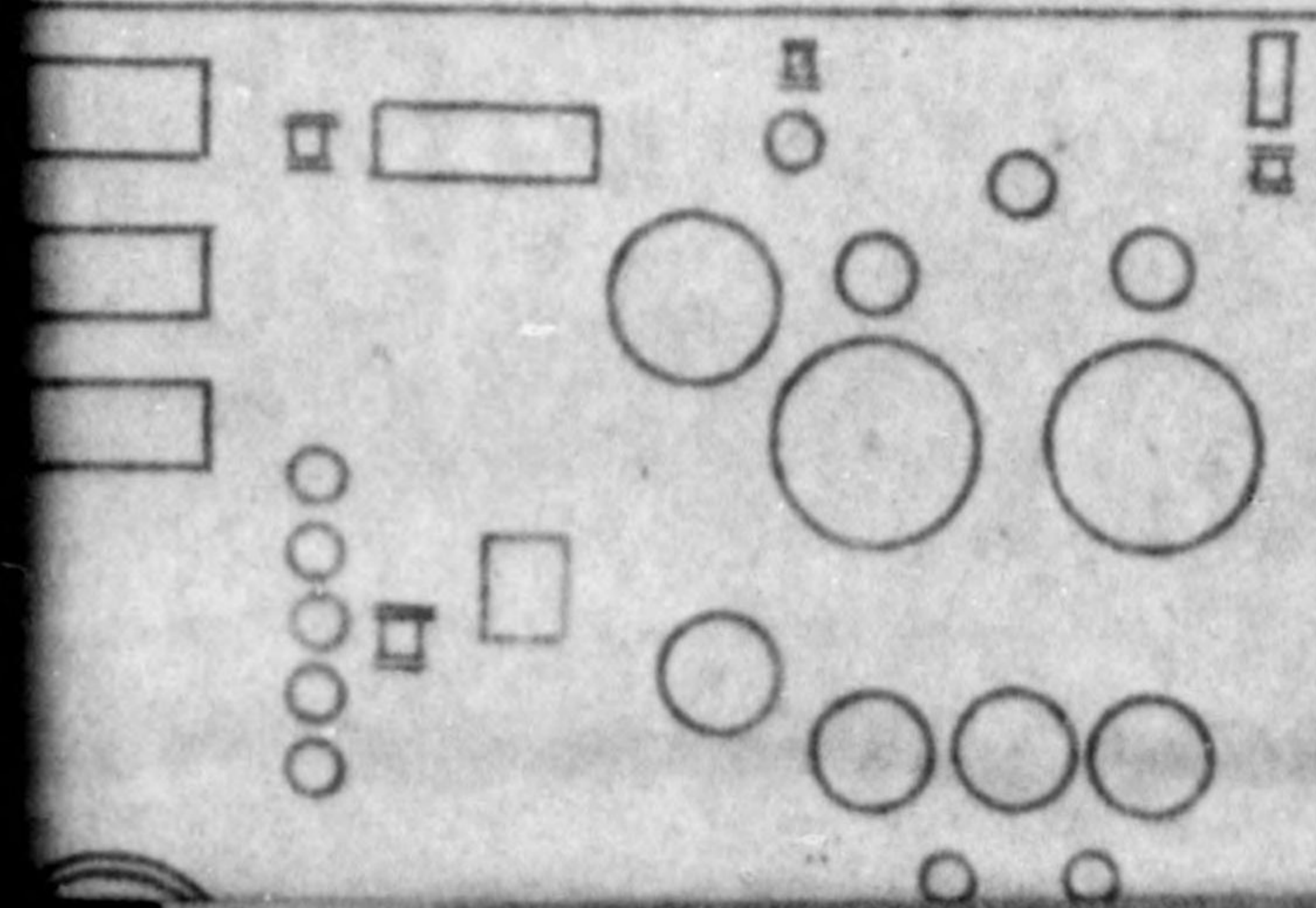
Office

Synthesizing Plant of hydrochloric Acid

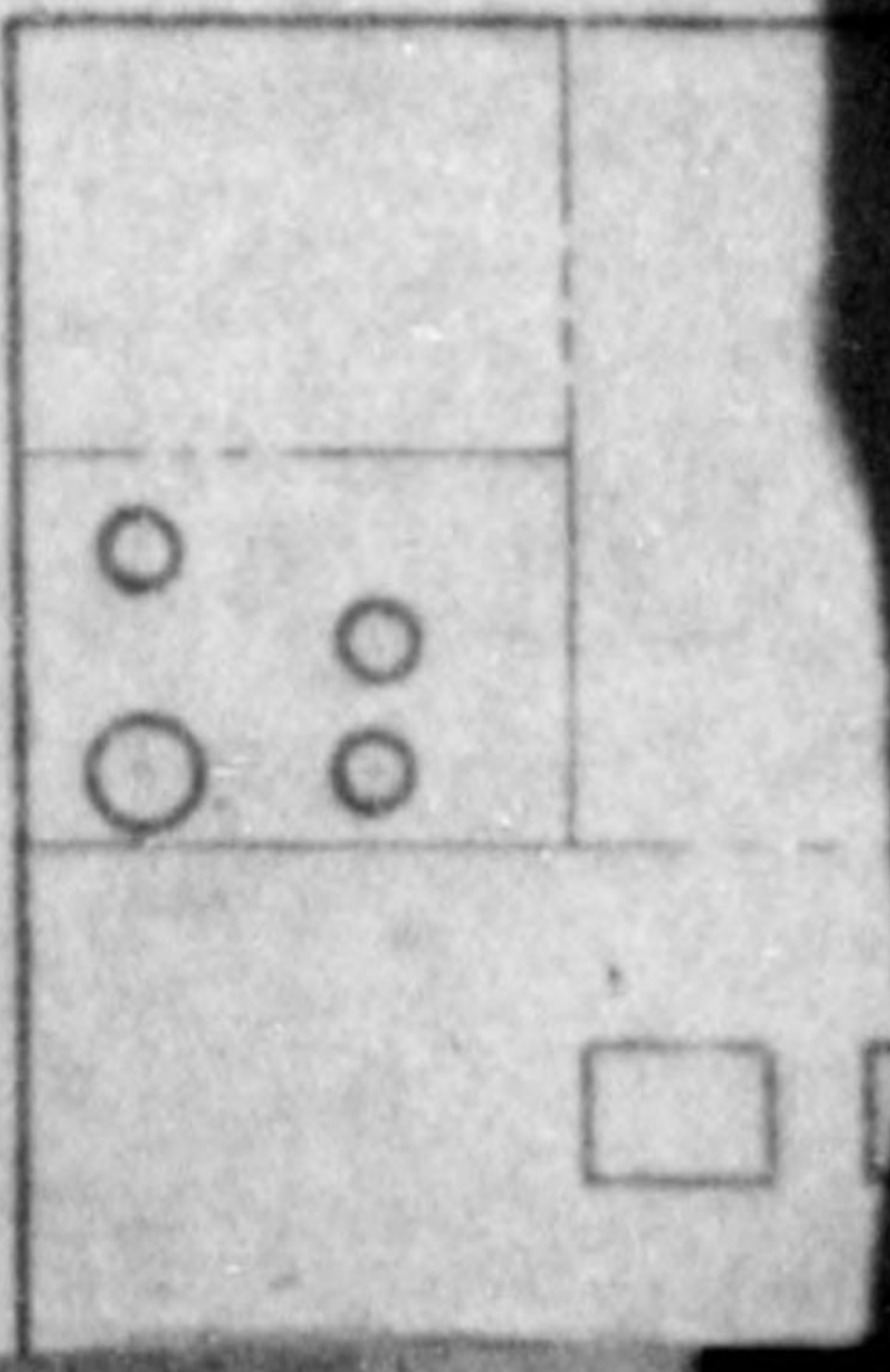
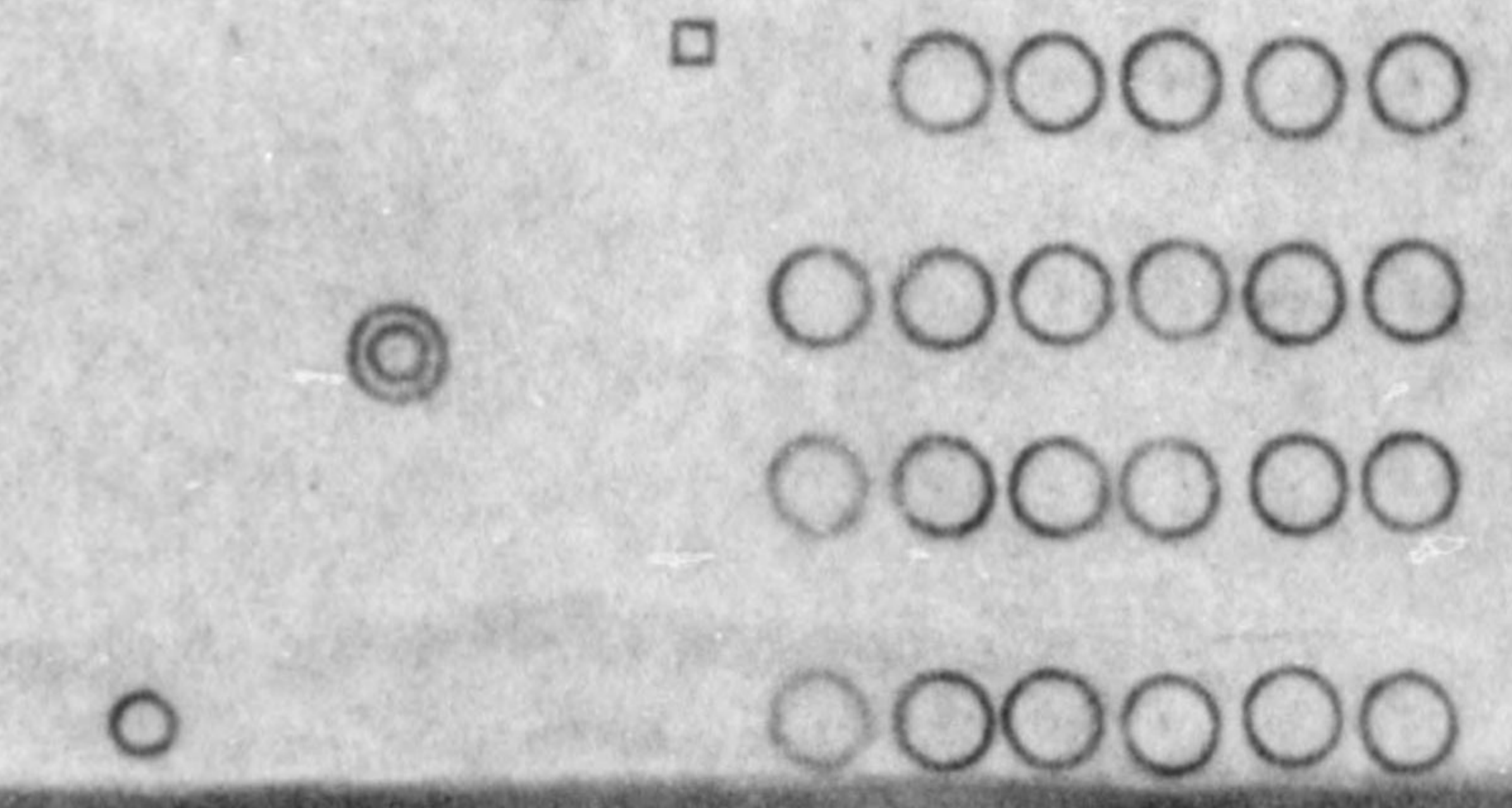


ooooo

oooooooo



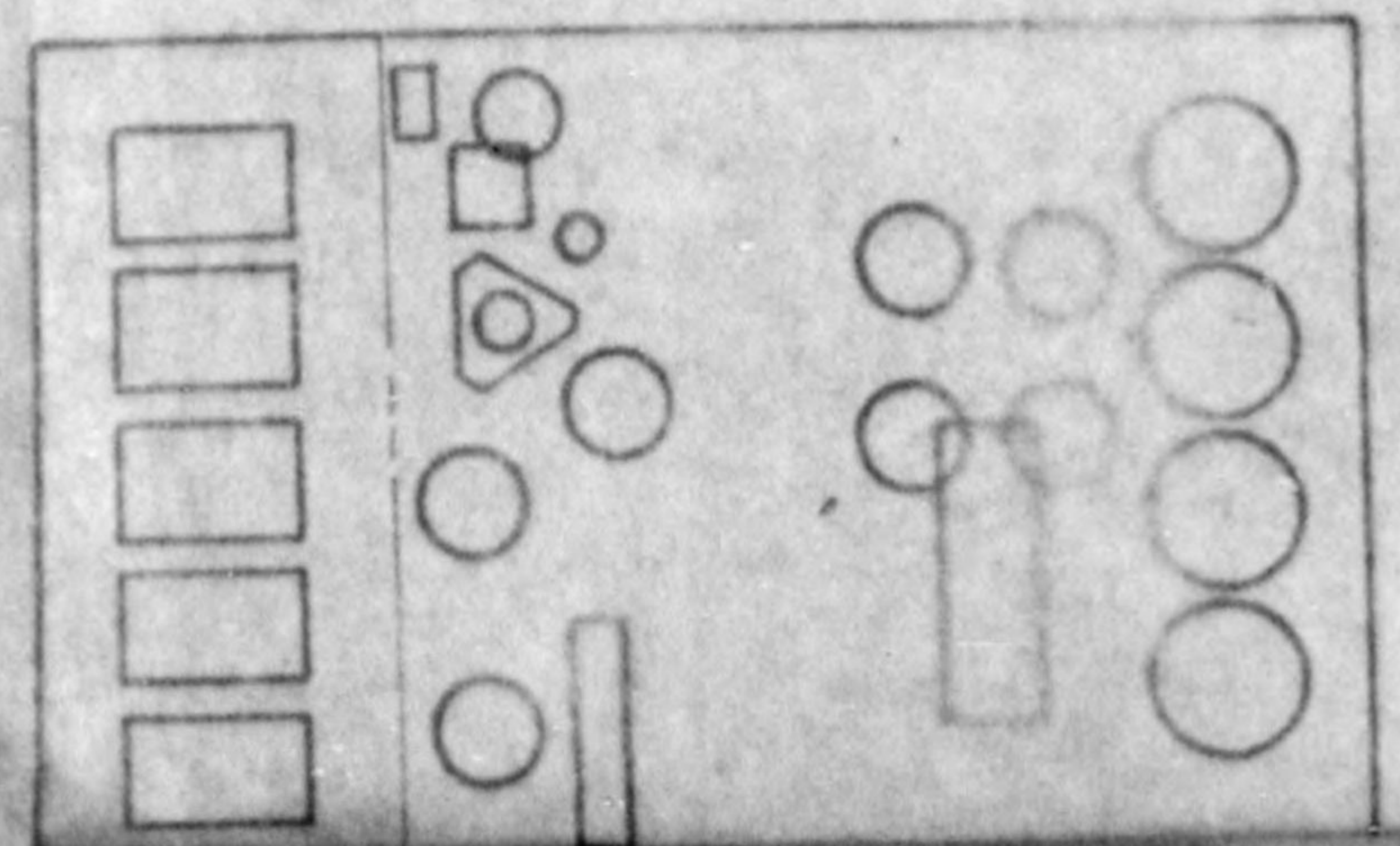
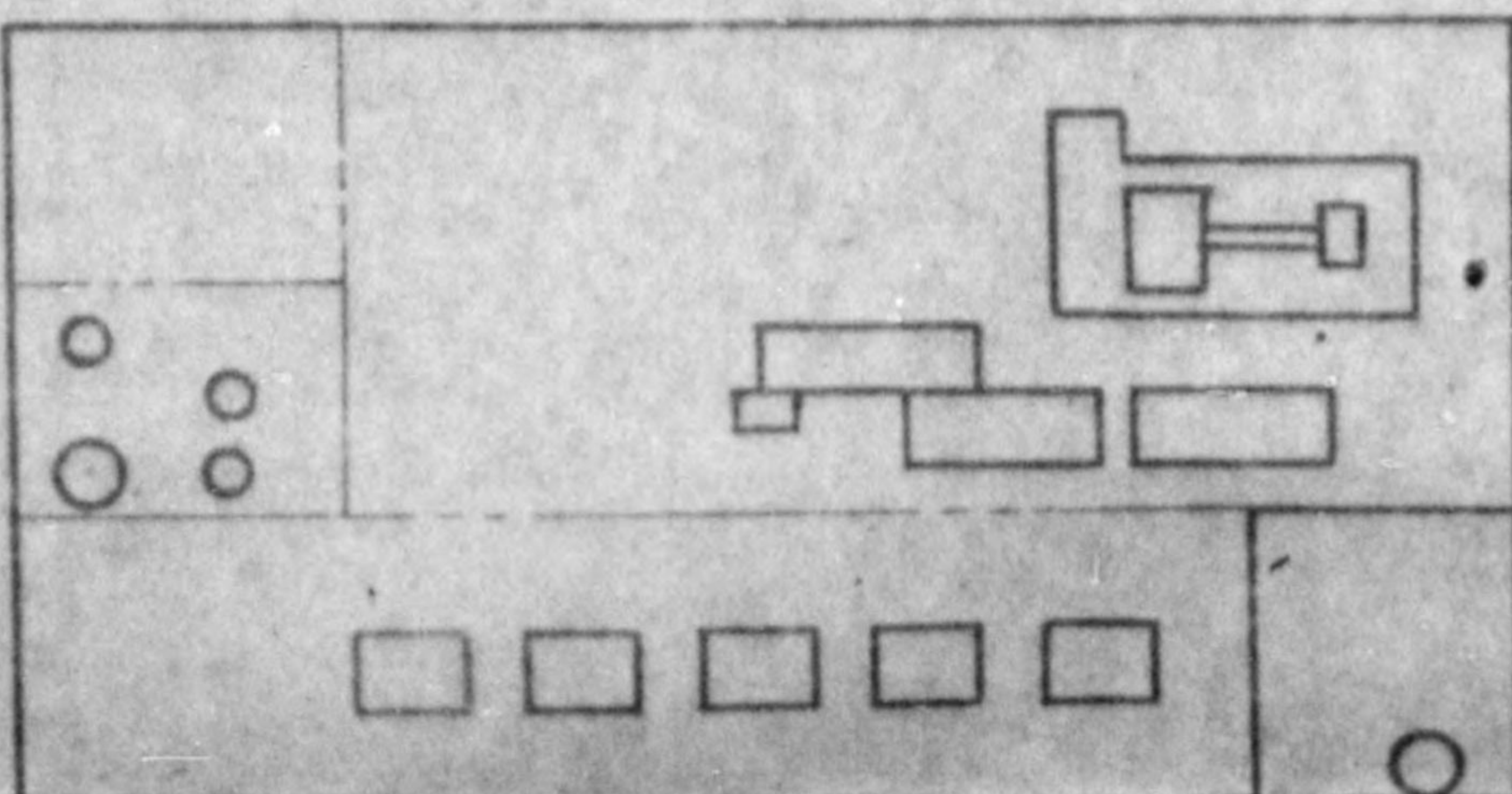
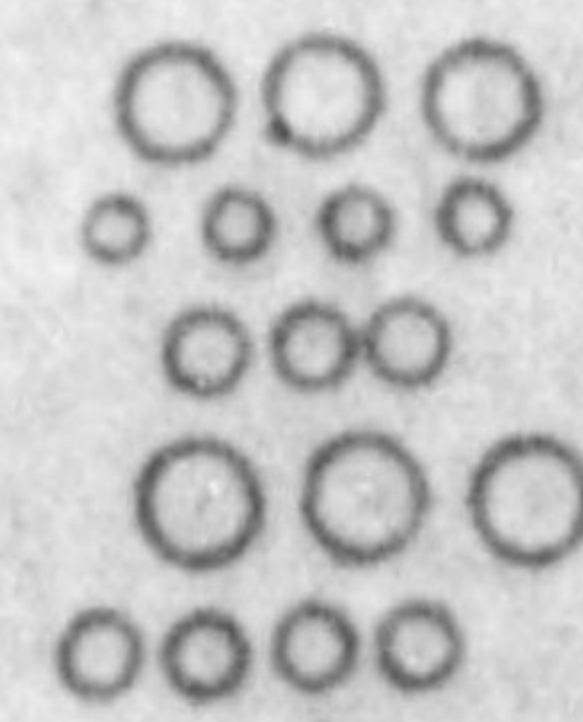
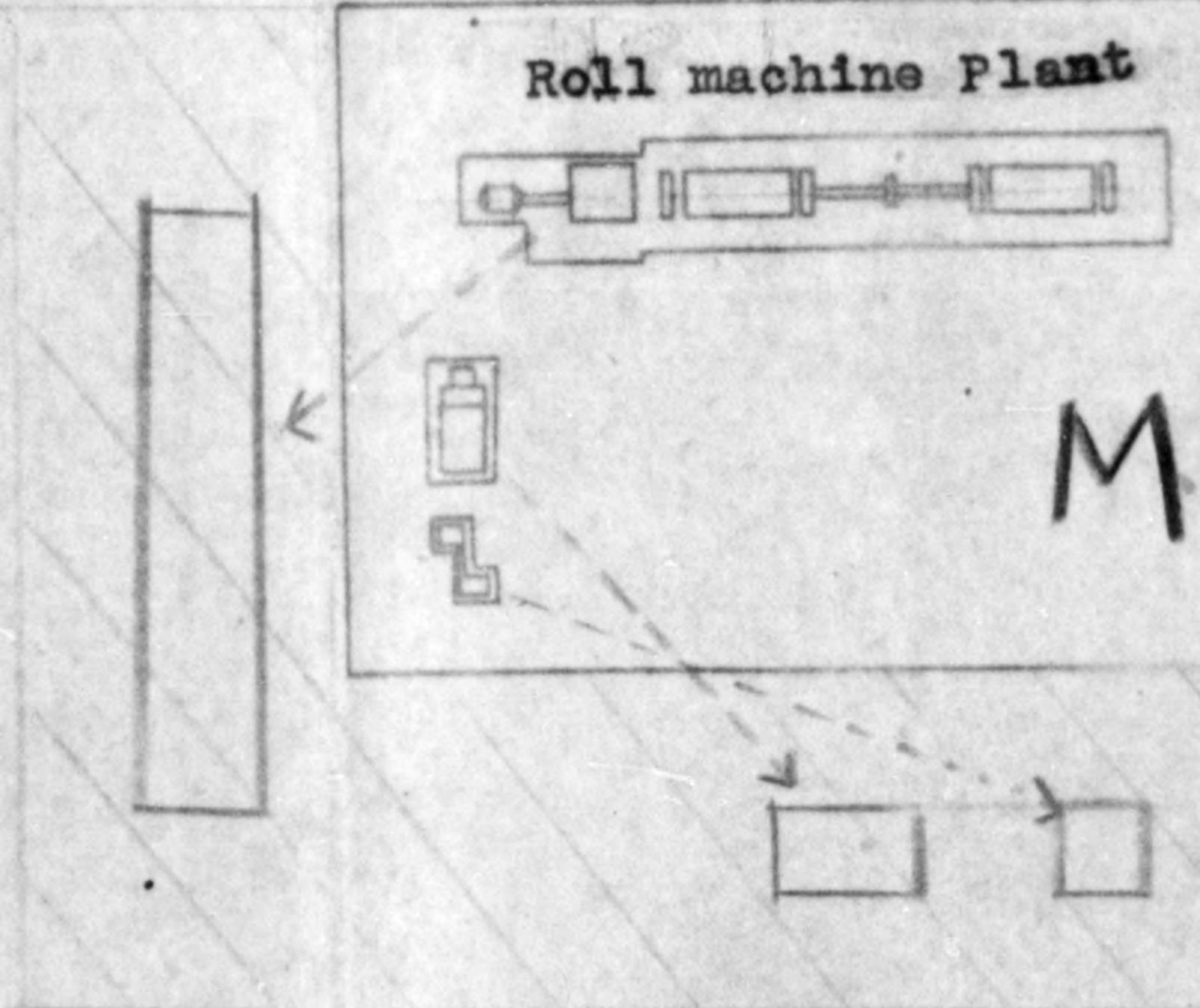
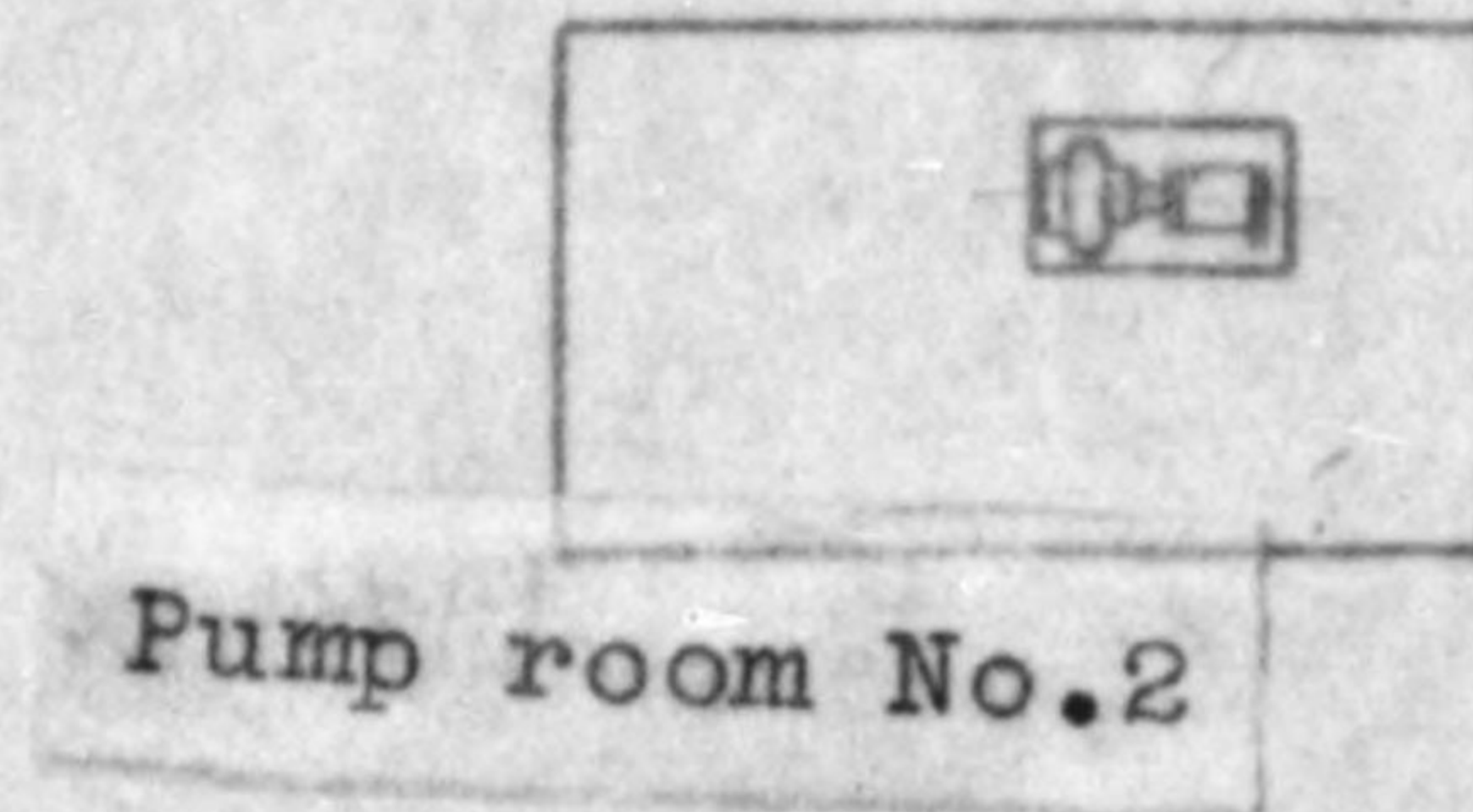
Polymerising Plant





OUT LINE BLUE PRINT OF  
SYNTHETIC RUBBER PLANT  
ARRANGEMENT FOR APPLICATION:—

Both Roll machine room enlarging,  
its machine removing ( M )  
and Boiler Electrification ( N )



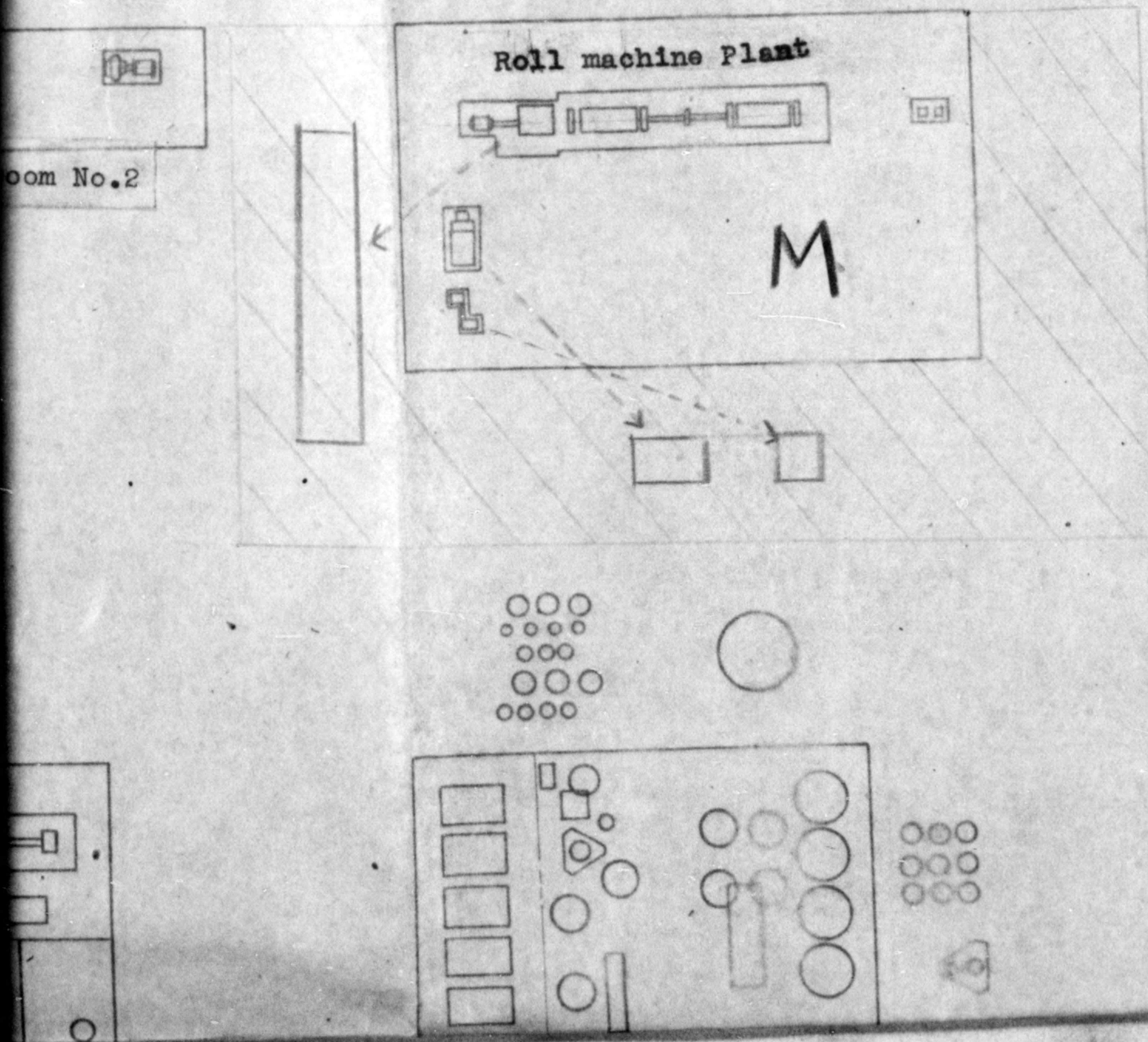


OUT LINE BLUE PRINT OF  
SYNTHETIC RUBBER PLANT

(B)

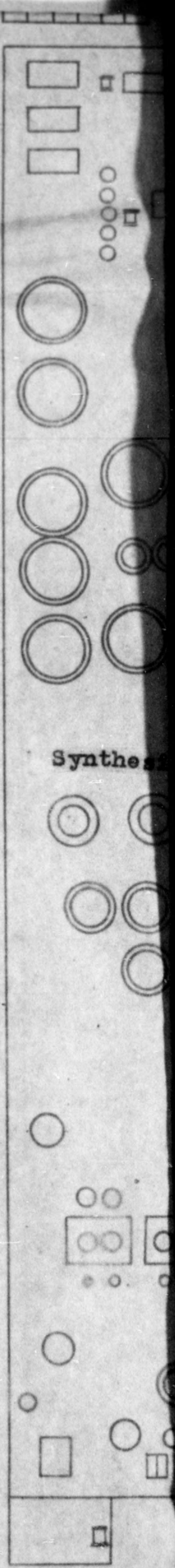
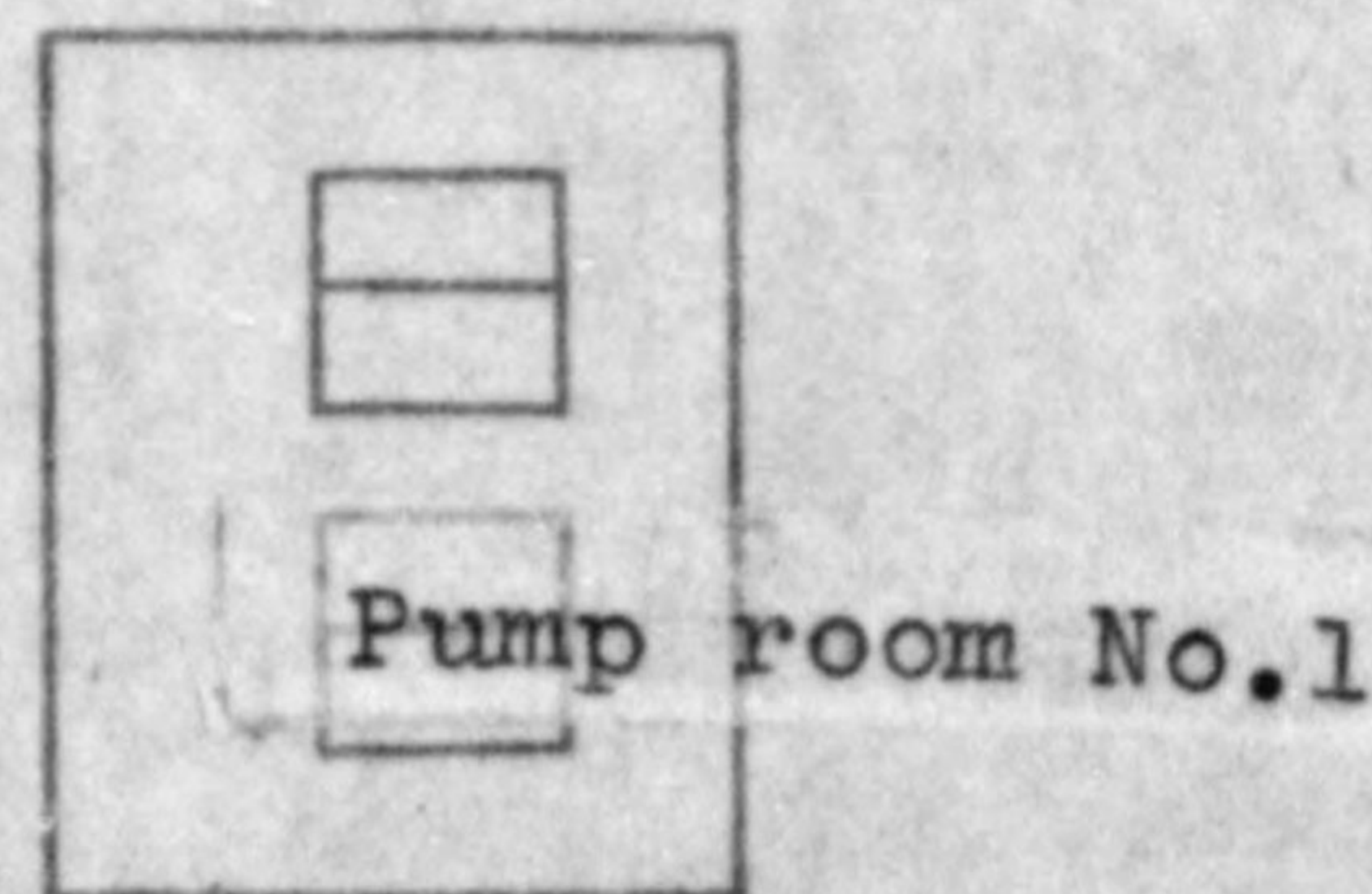
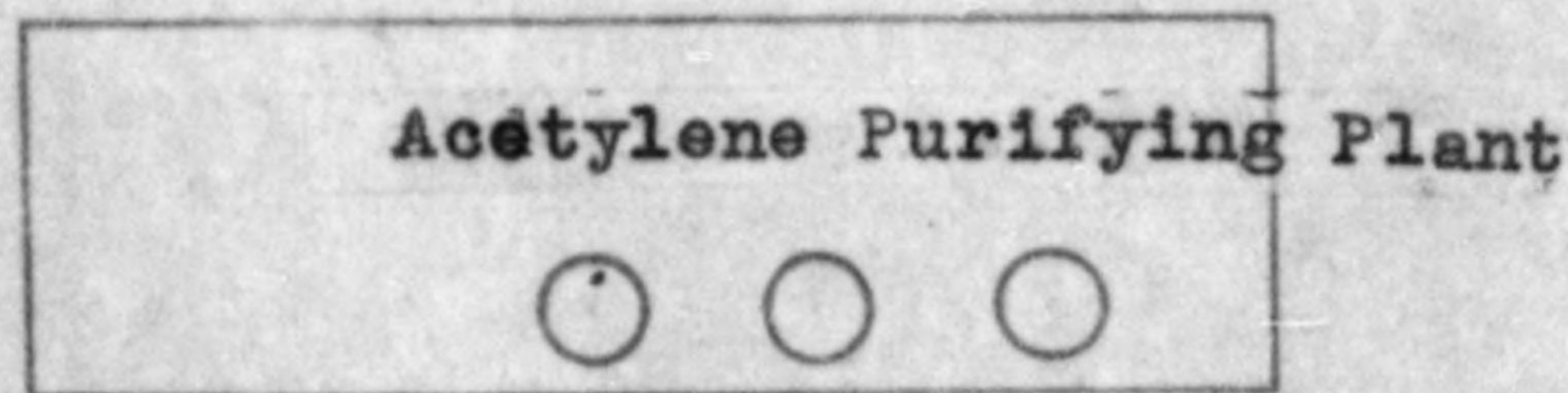
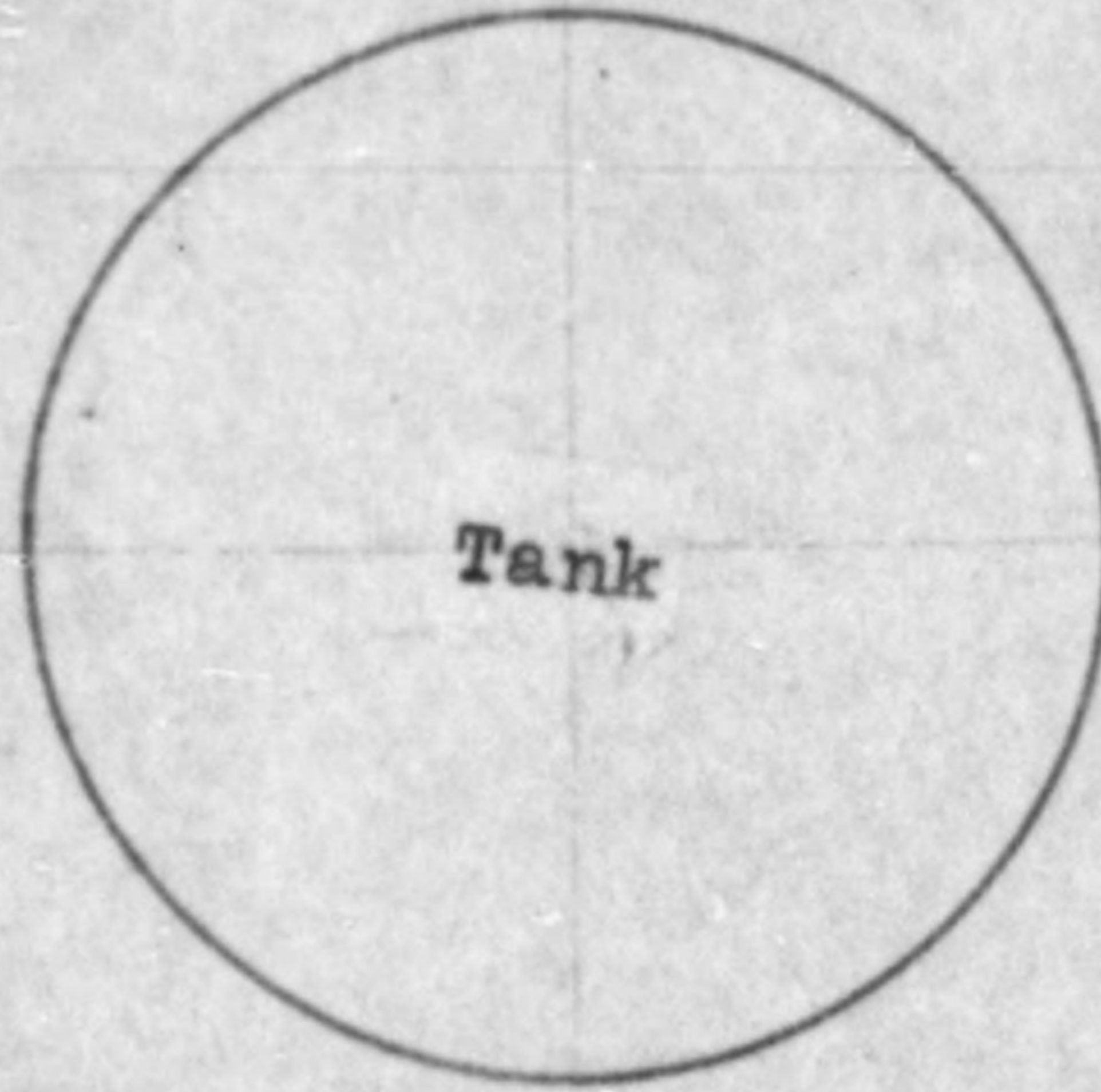
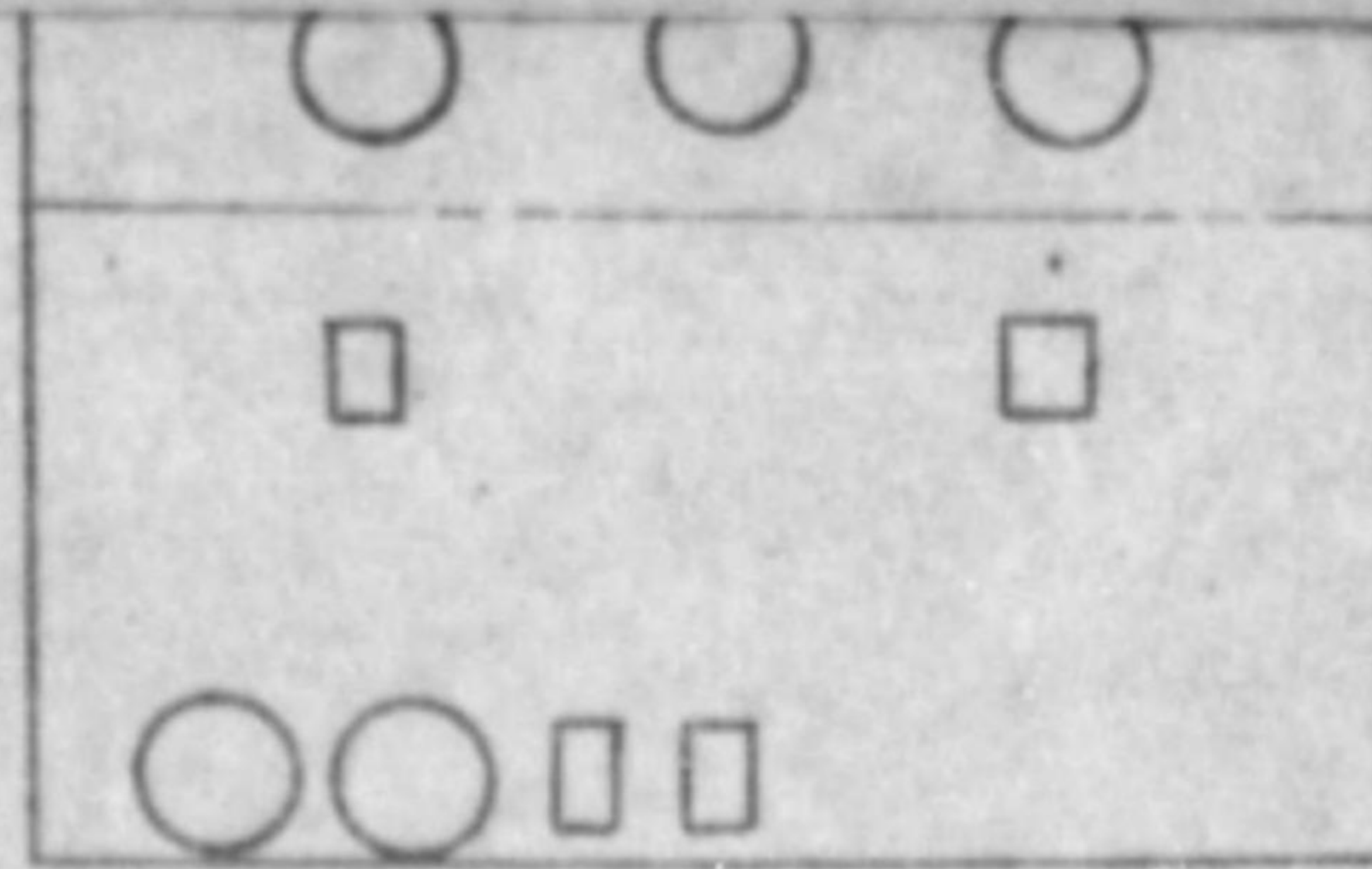
ARRANGEMENT FOR APPLICATION:--

Both Roll machine room enlarging,  
its machine removing ( M )  
and Boiler Electrification ( N )

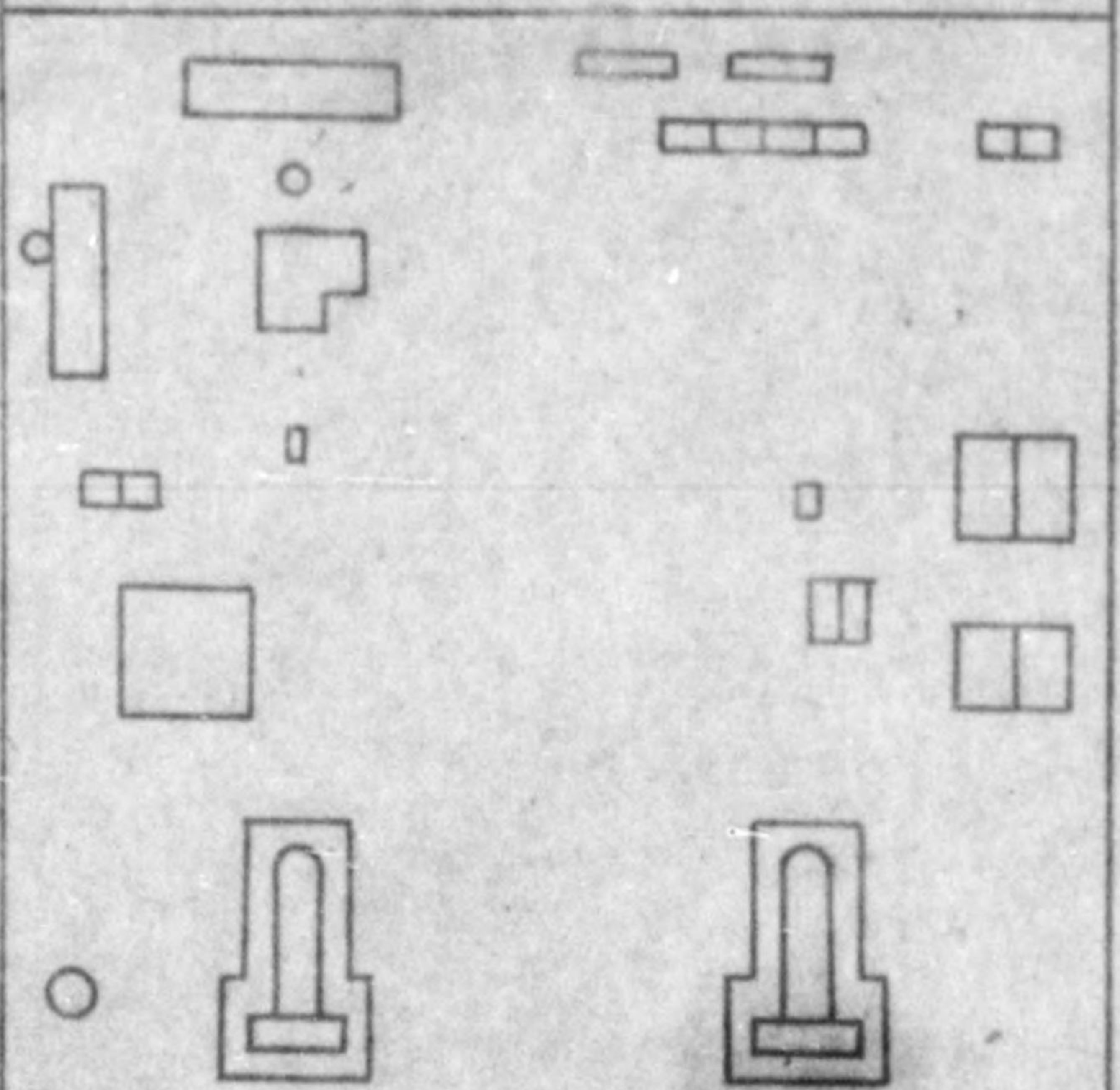
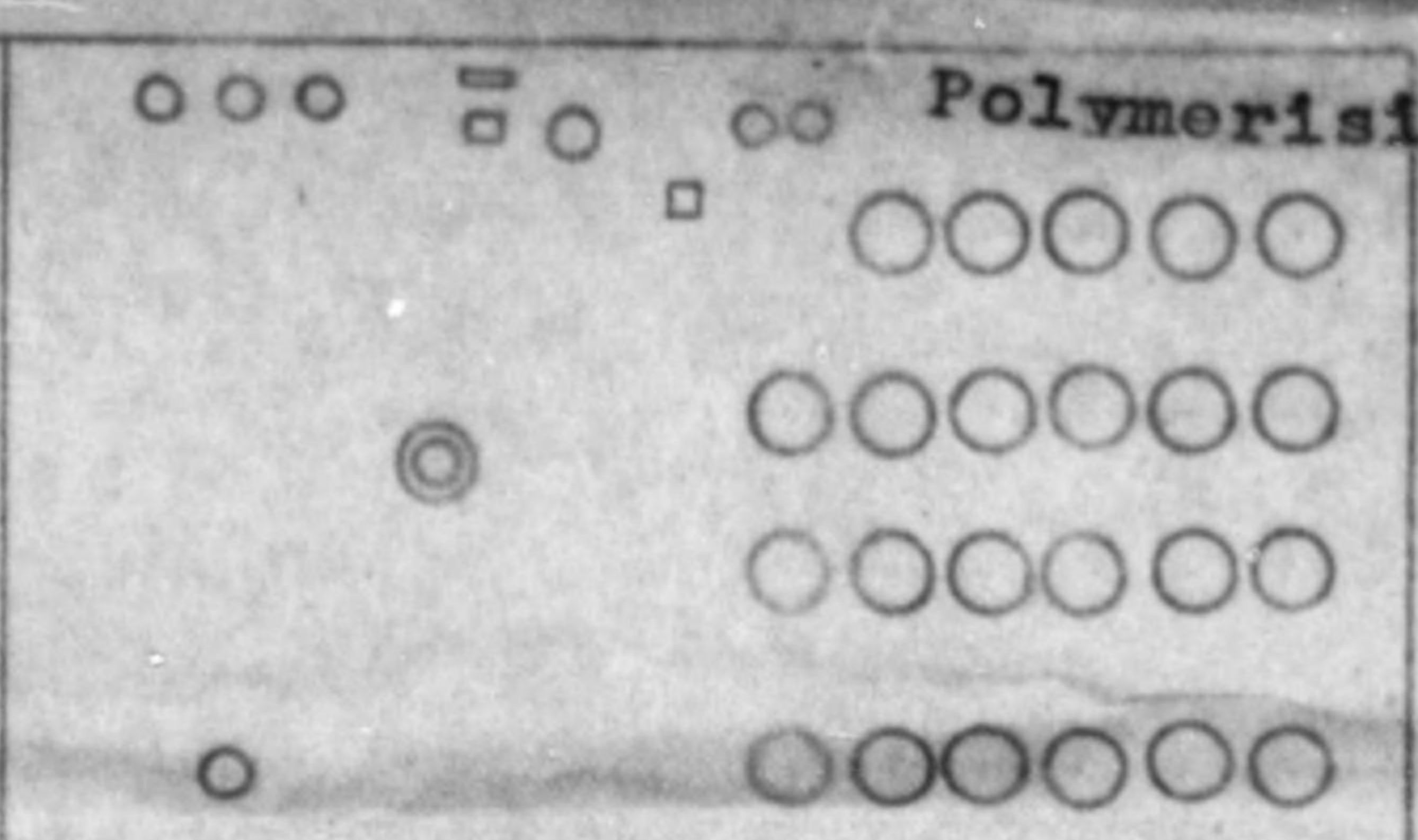
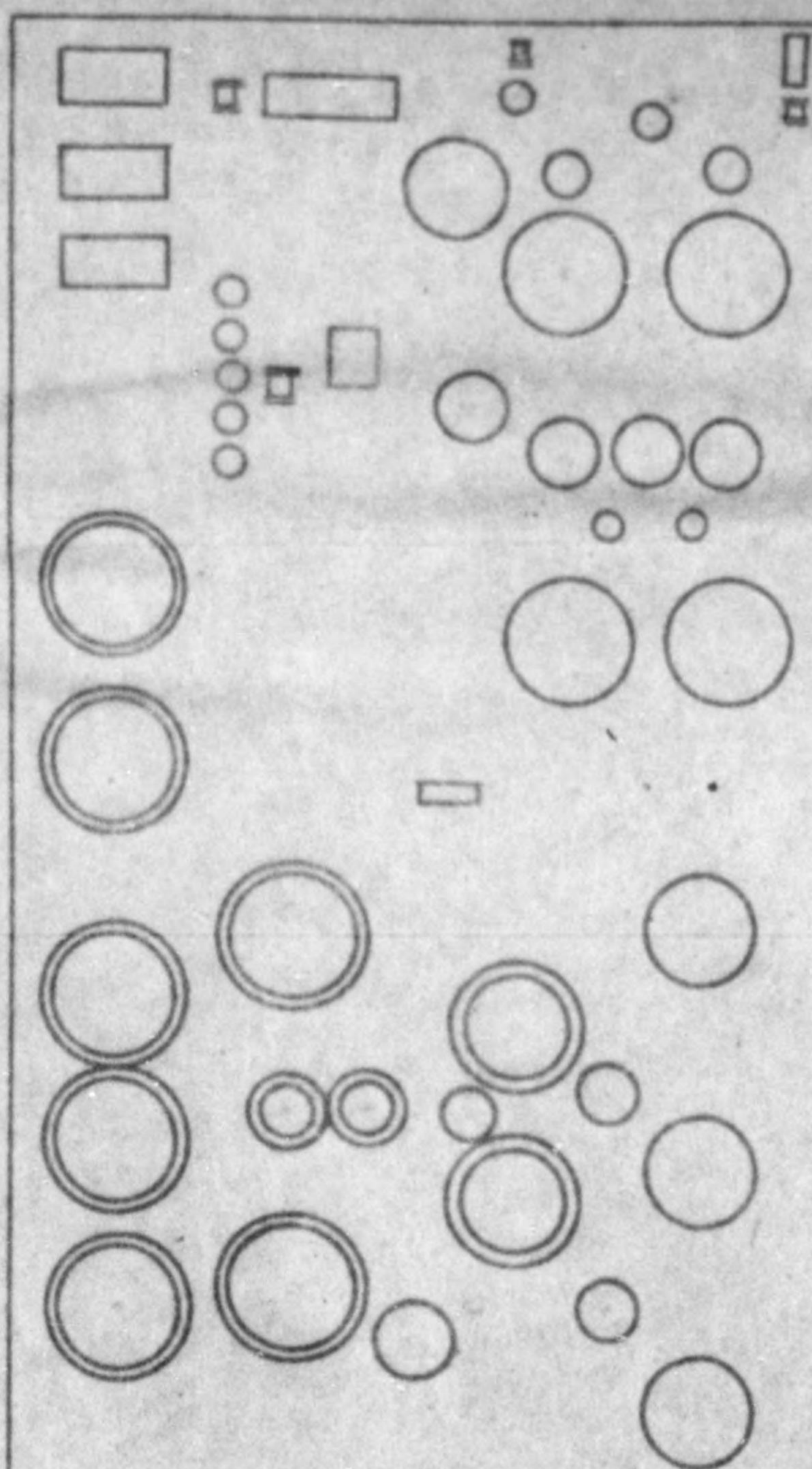




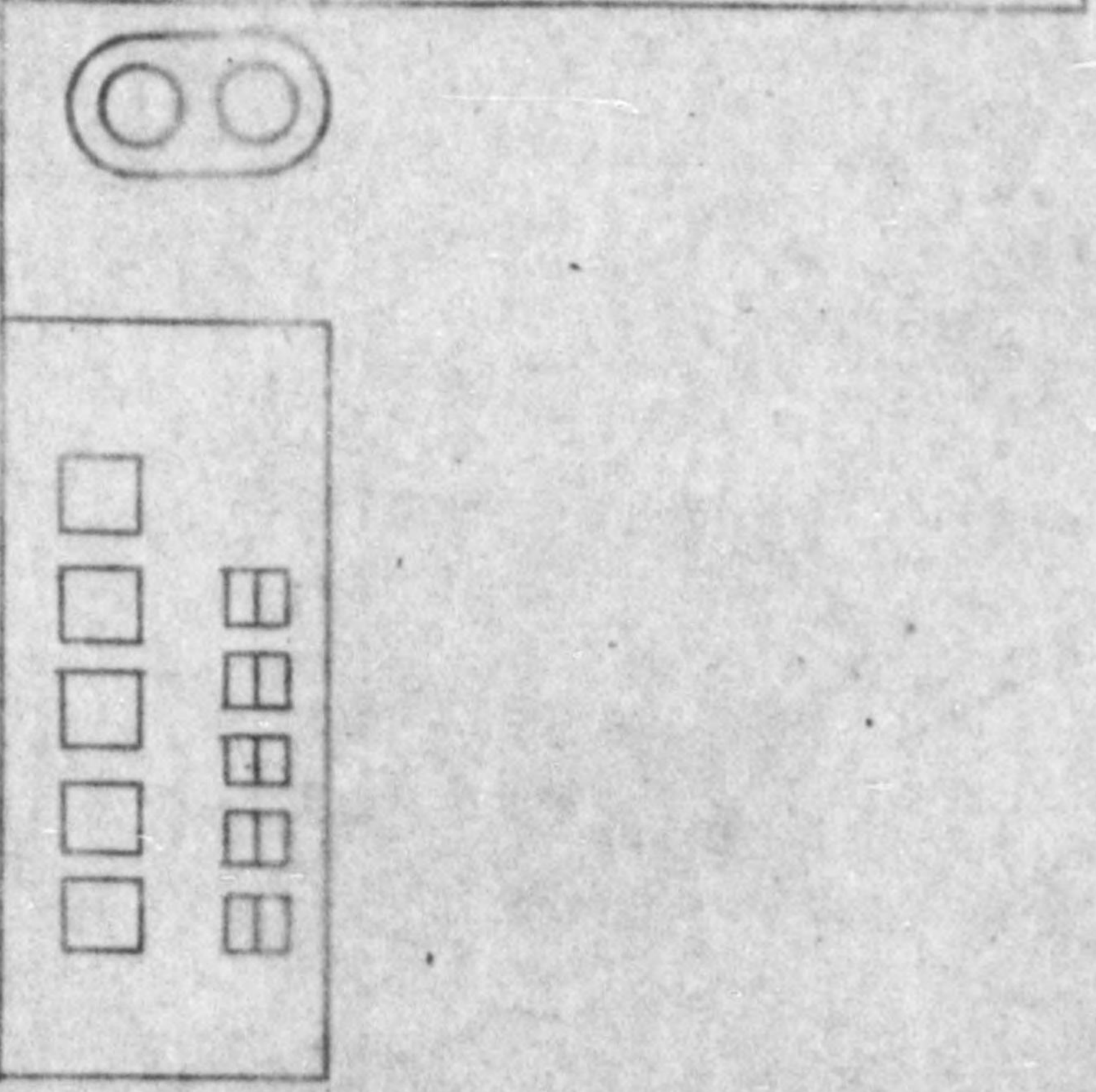
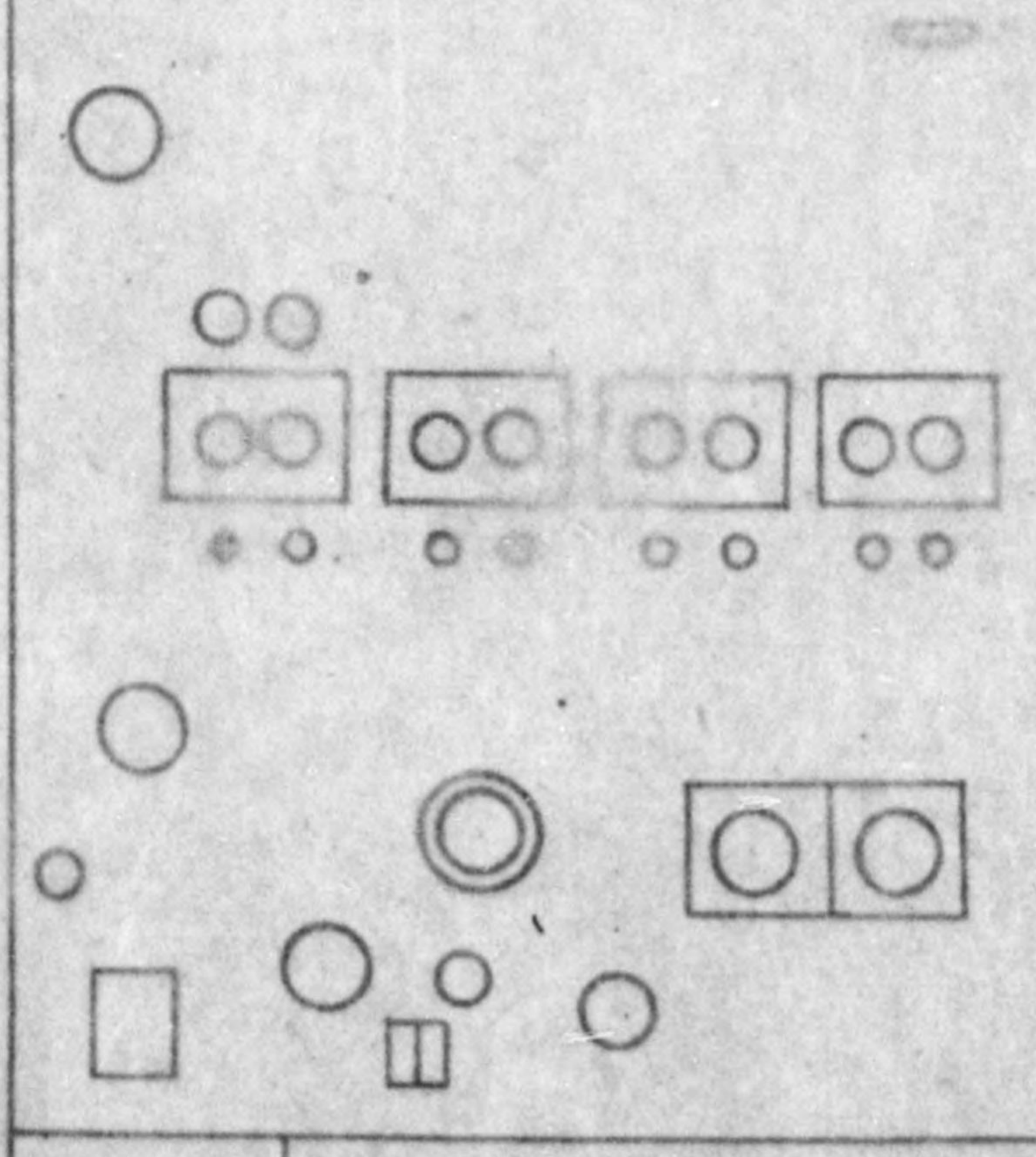
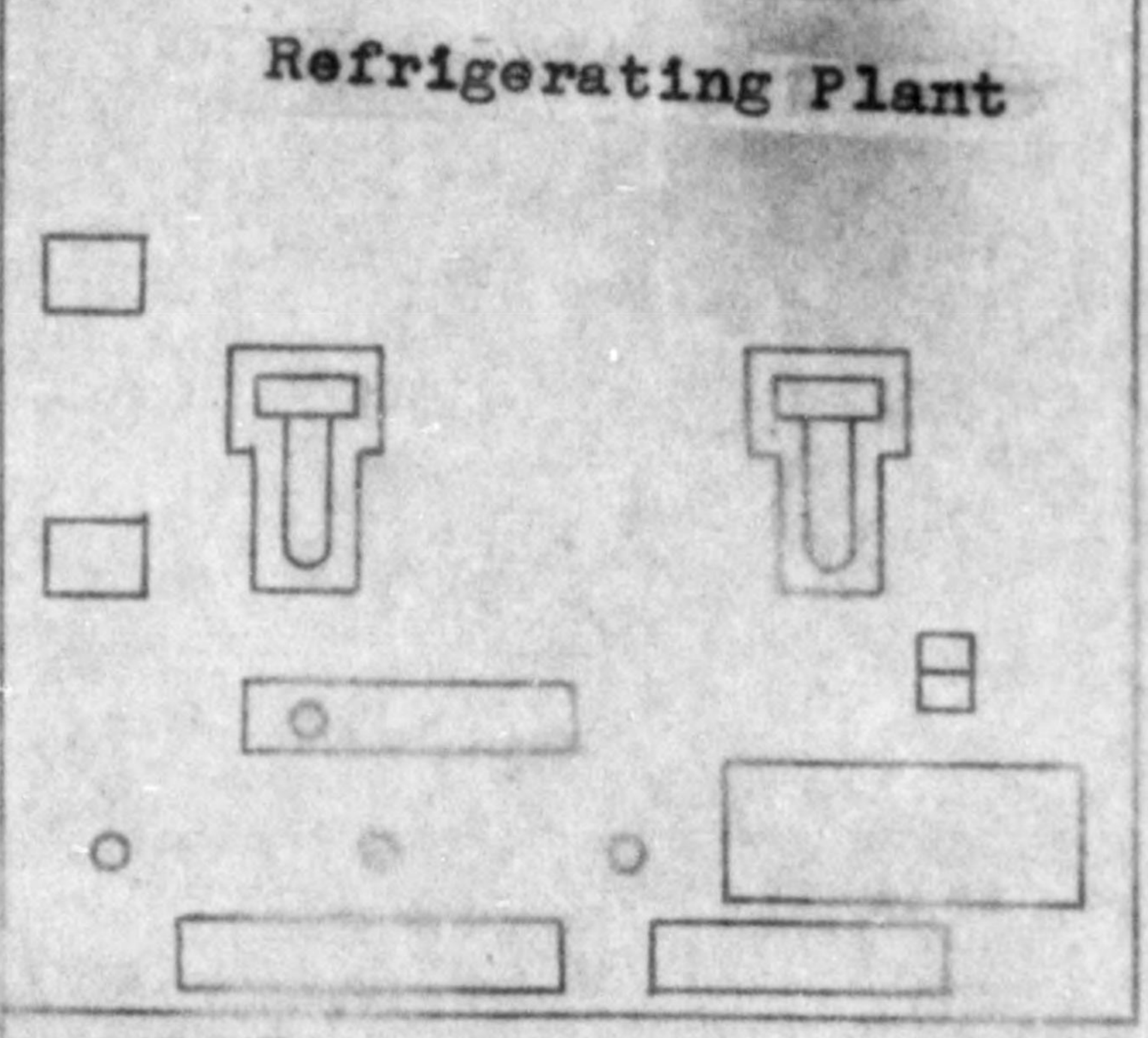
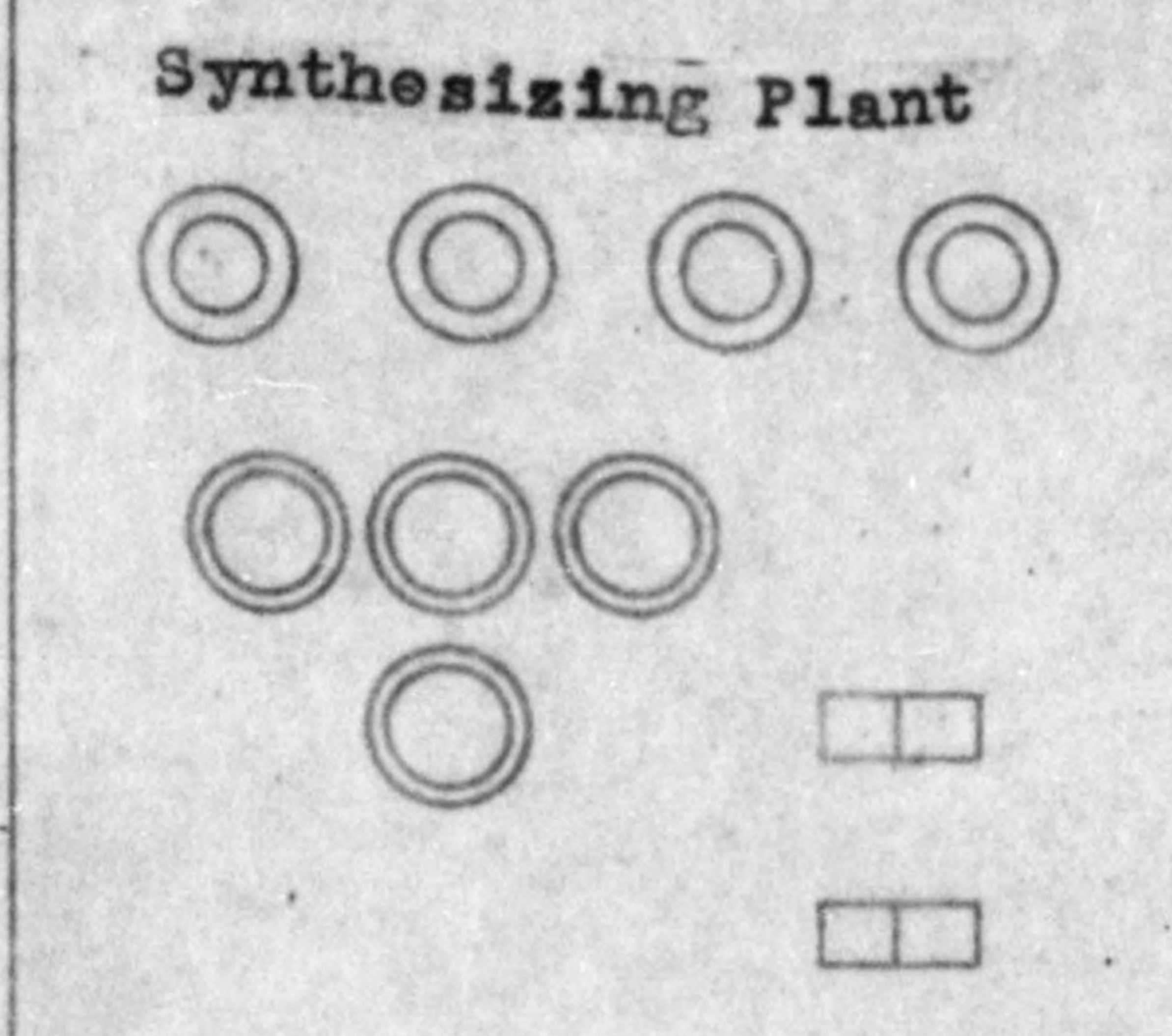
775013





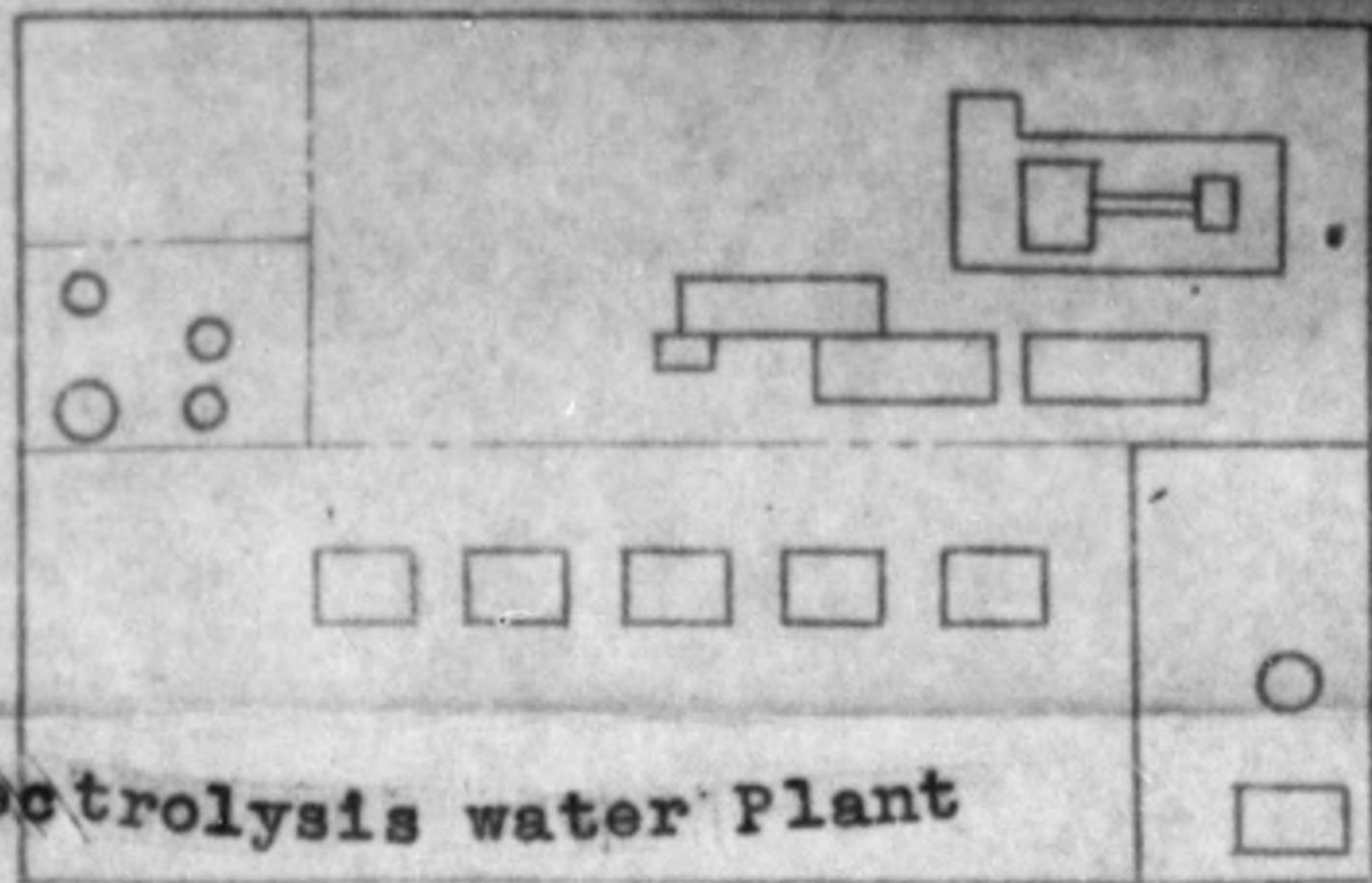


Refrigerating Plant

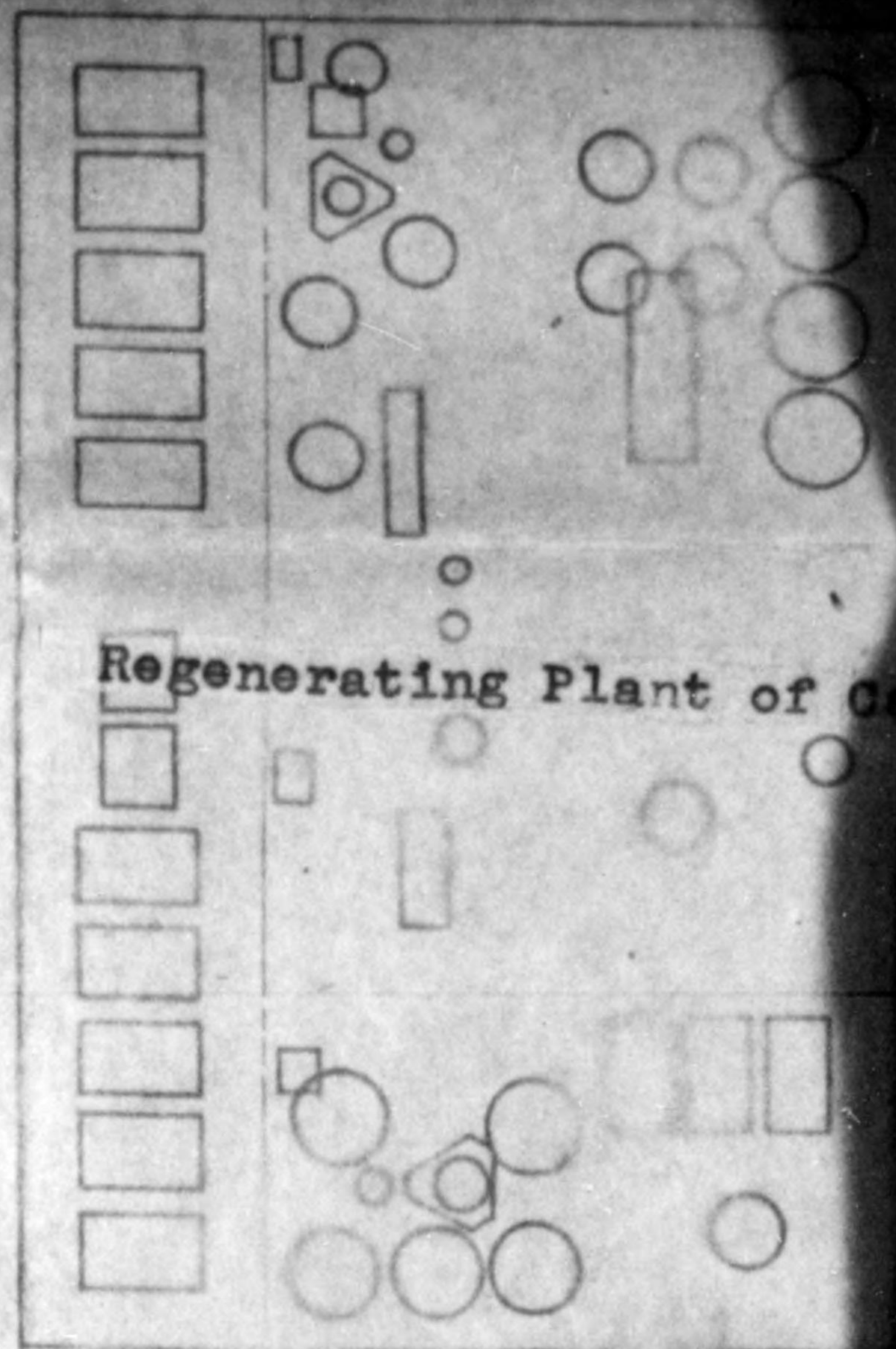


Electro

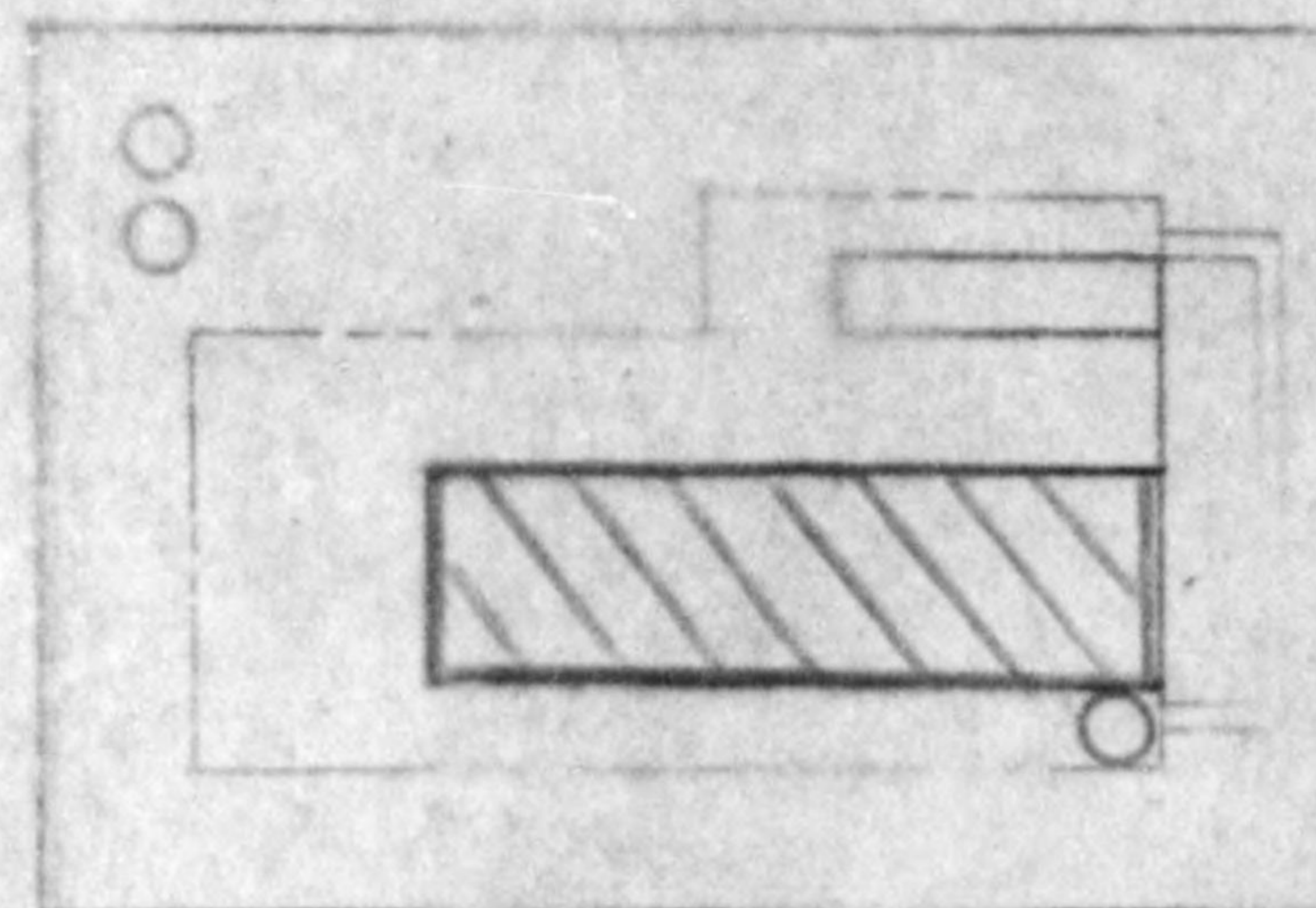




Electrolysis water Plant



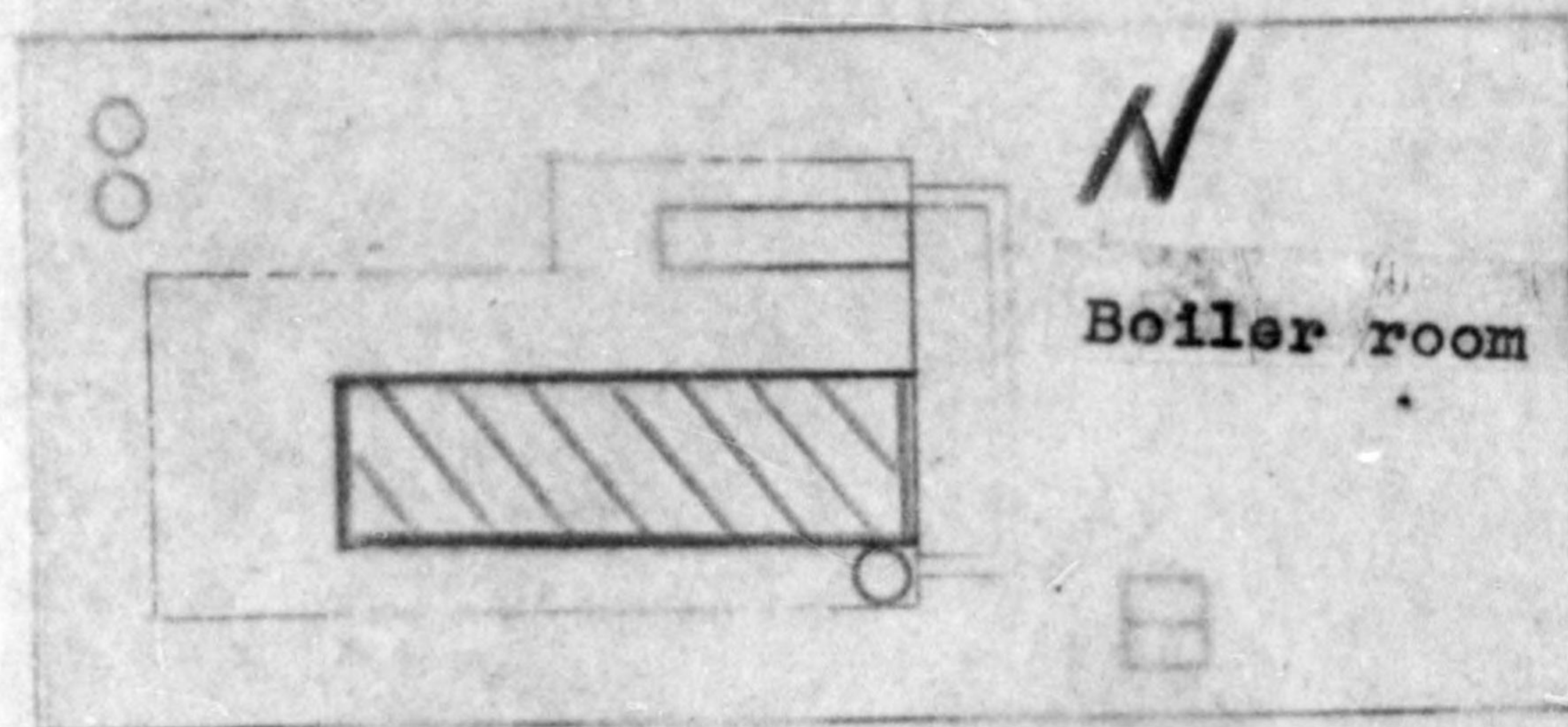
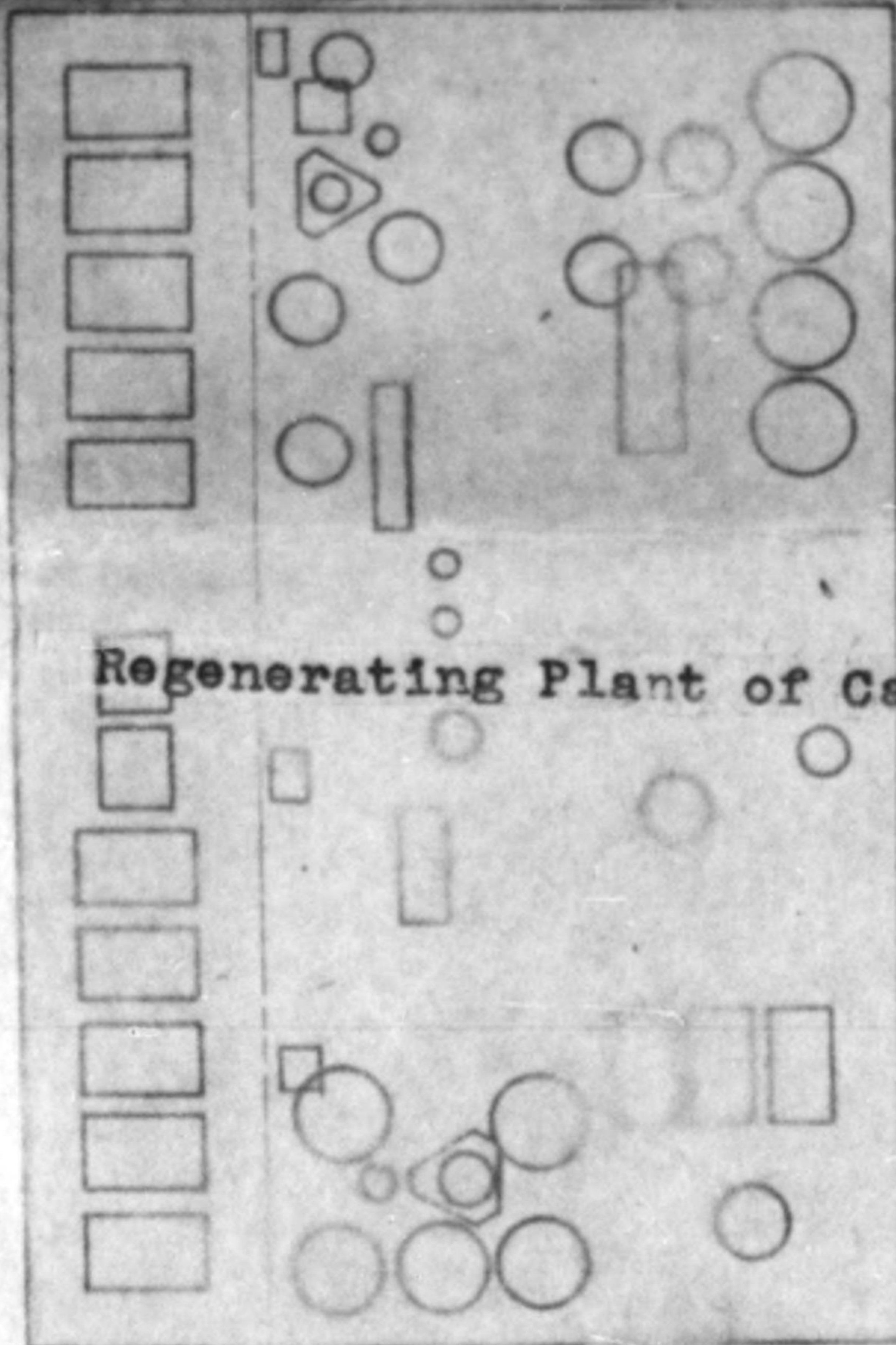
Regenerating Plant of Catalyst



Bo



775013





TO; Capt. Eugene Moss  
Toyama Mil. Govt. Team  
Through; Reparation Section, Toyama Prefectural Office  
From; Uozu Factory, The Nippon Carbide Industrial Co., Ltd.  
Date; Apr. 12, 1947.

Re; Application for Approval of Additional Installment  
of Equipment in Reparation Plant

Dear Sir:

Non-reparation equipment, of our factory and newly-purchased, was installed before the designation of reparation in the Reparation Plant for the purpose of manufacturing such medicines as Sulphonyl-guanidine, Belphenin, Aspirin and Acetanilid, and rubber boots; and also some more equipment of the same kind as above-mentioned is planned to be added shortly.

And the details are shown in the Additionally Installed Machine List and the Synthetic Rubber Plant arrangement in the annexed papers. And now the additional equipment is working to raise the productive capacity of each article above-mentioned.

Here according to Rep. No. 96 re: Application for Approval of Removing Installment, dated Mar. 27, 1947, instructed by your office, I entreat your office to grant your approval of additional installment of equipment.

Further I should like to add that the additional installment will by no means interfere with the preservation of the reparation equipment.

Yours very faithfully,

Signed: Keiji Isahina

Superintendent, Uozu Factory



ADDITIONALLY INSTALLED MACHINE LIST  
( in the Reparation plant )

April 1947. Investigate

Uozu factory. The Nippon Carbide Industrial Co., Ltd.



Polymerizing plant

No.	Name of Machine	Unit	Description	Use	Inside
Ex 1	Thermostat	1		Acetylation	inside
2	Agitator and Motor	1	1 HP	"	
3	Vacuum pump and Motor	1	1 HP	filtering Belphenin	pure
4	Reaction Vessel	1	enamelled 100L	acetylation	inside
5	Filter	1	of aluminum 50L		inside
6	Motor	1	3 HP	condensation	inside
7	Switch Board	1		"	
8	"	1		condensing, washing, agit	
9	"	1		outdoor	
10	"	1		pumping water from under-ground room	
20	Condensation and Intermediary	1		condensing Belphenin	inside
34	Stand for Hanging Condensation product	1		hanging condensation product	
51	Balance	1	50 Kg	measuring product	inside
53- 57	Crystallizing Vessel	5	of aluminum 3'x5'x1"	crystallizing Belphenin	



Polymerizing plant ( 18 units )

Use	Inside or outside factory	Former location	Former possessor
Acetylation	inside factory	2nd Division, medicine section	
"	"	"	
filtering Belpheina	purchased	Kyoto	Shimazu manufact
acetylation	inside factory	2nd Division, medicine section	
condensation	inside factory, self-made		
"	inside factory	2nd D., medicine section	
condensing, washing, agitating	"	Electricity section	
outdoor	"	"	
pumping water from under-ground room	"	"	
condensing Belpheina	inside fact., self-made	1st D., Medicine section	
hanging condensation product	"	"	
measuring product	inside fact.	Machine section	
crystalizing Belpheina	inside fact., self-made	1st. D., medicine section	



t ( 18 units )

Where or outside factory	Former location	Former possessor	Date of Addition
inside factory	2nd Division, medicine section		May 1946
"	"		"
Purchased	Zyote	Shimazu manufactory	Oct. 1946
inside factory	2nd Division, medicine section		May 1946
inside factory, self-made			Oct. 1946
inside factory	2nd D., medicine section		May 1946
"	Electricity section		"
imitating	"		"
"	"		"
"	"		"
inside fact., self-made	1st D., Medicine section		Aug. 1946
"	"		Oct. 1946
inside fact.	Machine section		May 1946
inside fact., self-made	1st. D., medicine section		"



Synthesizing Plant

No.	Name of machine	unit	Description	Use	inside or
Ex 24	Benzyl alcohol still	1	100 L	distilling Benzylalcohol	1
25	mustard oil still	1	"	distilling mustard oil	3



( 2 units )

Outside factory	Former location	Former possessor	Date of Addition
inside fac., self-made	1st D. medicine section		Oct. 1946
"	"		"



Synthesizing plant or hydrochl

No.	Name of Machine	Unit	Description	Use	Inside
Ex 11	Hydrator	1		manufacturing Benzyl-alcohol	inside
12	Decomposing Vessel and Cooler	1		manufacturing Mustard oil	
13	"	1		"	
14	Motor	1	1 HP	"	inside
19	Conduction-apparatus	1		Decomposing Vessel attachment	inside
20	Mustard oil Receiver	1	150 L	"	
27	phenylthiocarbamid Reaction Vessel				
28	Mustard oil Receiver	1	150 L	Decomposing Vessel attachment	
29	phenylthiocarbamid Reaction Vessel	1			
30	Oil Switch	1		Decomposing Vessel motor	
33	"	1		Air-compressor motor	
36	Wooden Vessel	1		storing Aniline-sulfate	
41	Conduction-apparatus	1		agitating phenylthiocarban	
42	Motor	1	3 HP	"	
49	Switch Case	1		outside	



of Hydrochloric Acid (12 units)

Inside or outside factory	Former location	Former possessor	Date of Addition
inside fac., self-made	Machine Section		May 1946
"	1st D., Medicine Section		"
"	"		"
inside fac.	2nd D., Medicine Section		"
essel inside fac., self-made	Machine Section		"
"	1st D., Medicine Section		"
"	"		"
essel "	"		"
"	"		"
essel motor inside fac.	"		"
r motor "	"		"
ne-sulfate inside fac., self-made	2nd D., Medicine Section		May 1946
nylthiocarbamid "	Machine Section		"
inside fac.	2nd D., Medicine Section		"
inside fac., self-made	1st D., Medicine Section		"



Regenerating plant of Catal

No.	Name of machine	Unit	Description	Use
Ex 15	Acetanilid Reaction vessel	1	of aluminum 500L	manufacturing Acetanilid
16	"	1	" 100L	"
17	Solution vessel	1	"	refining Acetanilid
18	Acetic Acid still	1	"	collecting Acetic Acid
31	wooden case	1		storing product
32	re-crystalizing vessel	1		refining Acetanilid
35	reaction vessel	1	enamelled	solving crystal
37	Wooden Case	1		storing product
38	Switch Board	1		Centrifugal Separator 7.
40	"	1		2 HP pumping -water motor
43	"	1		1 HP Blower motor
44	"	1		electric heating 500L Rea
45	"	1		motor for 1HP Acetanilid Vessel Agi
46	"	1		heating Warm Water Vessel
47	"	1		heating Dryer
48	"	1		motor for agitating crude
50	"	1		vacuum-pump motor
52	"	1		2 HP pump motor
58	"	1		3HP Centrifugal Separator
59-00	"	2		electric heating of Aspi
61	"	1		100L Reaction Vessel mot
62	"	1		heating Aspirin



Catalyst ( 35 units )

	inside or outside factory	Former location	Former possessor	Date of Addition
anilid	inside fac., self-made	1st D., medicine Section		July 1946
"	"	"		May 1946
"	"	"		"
Acid	"	2nd D., medicine Section		Aug. 1946
"	"	"		"
"	"	1st D., medicine Section		May 1946
"	"	2nd D., medicine Section		"
"	"	"		"
Motor 7.5 Herts.	"	Electricity section		Aug. 1946
Motor	"	"		"
"	"	"		"
COOL Reaction Vessel	"	"		"
anilid reaction	"	"		"
essel Agitator	"	"		"
Vessel	"	"		"
"	"	"		"
g crude-acetanilid	"	"		"
Vessel	"	"		"
"	"	"		"
erator motor	"	"		"
f Aspirin solution	"	"		"
el motor	"	"		"
"	"	"		"



No.	Name of Machine	Unit	Description	Use
EX 63	Motor	1	1 HP	agitating 100l Reaction Vessel
64	"	1	1/2 HP	Blower
65	Blower	1	1/2 HP	drying Acetanilid
66	Solution Verrel	1	of aluminum 1.5m <sup>3</sup>	refining Acetanilid
67	Barrel	1	72 l	storing crude product
68	"	1	180l	"
69	Active Coal storing-Box	1		refining Acetanilid
70	Active Coal storing -Box	1		"
71	Motor	1	1 HP	motor for 500 l Reaction-Vessel Agitator
72	Crystalizing Vessel	1	of aluminum, round-shaped	refining Aspirin
73	"	1	of aluminum 2'x3'x1'(2)	crystalizing Aspirin
74	Vacuum Pump	1	with 1/2HP motor	filtering Aspirin



inside or outside factory	former location	former possessor	Date of Addition
inside fact.	2nd D. Medicine section		May, 1946
"	"		"
"	"		"
inside fact. self-made	1st D. Medicine section		Aug. 1946
"	2nd D. Medicine section		"
"	"		"
"	1st D. Medicine section		"
inside fact.	"		"
"	2nd D. Medicine section		"
"	1st D. "		"
inside fact. self-made	" "		"
"	2nd D. "		"



775013

Test Room (1 unit)

No.	Name of Machine	Unit	Description	Use	Inside or Outside of Factory
Ex 75	Rotary Blower	1		Drying Belphenin	inside



(1 unit)

Inside or outside factory	Former location	Former possessor	Date of Addition
inside fact.	Synthetic Benzol section		Oct, 1946



Boiler Room (3 units)

No.	Name of machine	Unit	Description	Use	Inside of fact.
Bx 76	Evaporator	1	1000x500	evaporating up	inside fact.
78	Active Coal Furnace	1			"
79	Ice Apparatus	1			"



on (3 units)

Inside or outside factory	Former location	Former possessor	Date of Addition
inside fact. self-made	2nd D. Medicine Section		Aug. 1946
"	1st D. Medicine Section		Apr. 1947
"	"		"



Roll Machine Room (9)

No.	Name of Machine	Unit	Description	Use	Inside or Outside
Ex 21	Mixing Roll	1	12"x24"	manufacturing Rubber Boots	inside fact. self-made
22	Roll	1	6"φ x16"	"	borrowed
23	Vulcanizing Box	1	3'x3'	"	inside fact. self-made
39	Cutter	1	3.1'	"	purchased
77	Reducer	1	20 HP 1/30	"	"
80	Mixing Roll	1	14"x36"	manufacturing Rubber Boots	purchased
81	Roll	1	6"x16"	"	"
82	Motor	1	50 HP	"	"
83	Reducer	1	50 HP 1/20	"	"



He Room (9 units)

Outside Factory	Former Location	Former Possessor	Date of Addition
side part, lf-made	2nd D. Medicine section		Aug. 1946
crowed	Kanazawa	Toyo Rubber Co.,	"
side part, lf-made	2nd D. Medicine section		"
rebased	Niigata	Kojima Industrial Co.,	Feb. 1947
	Kyoto	Shimazu Manufactory Co.,	Aug. 1946
chased	Kyoto	Kotobuki Industrial Co.,	May. 1947
	Toyama	Japan Construction Industrial Co.,	"
	Kyoto	Kotobuki Industrial Co.,	"
	"	"	"





賠償

Reparation Machine



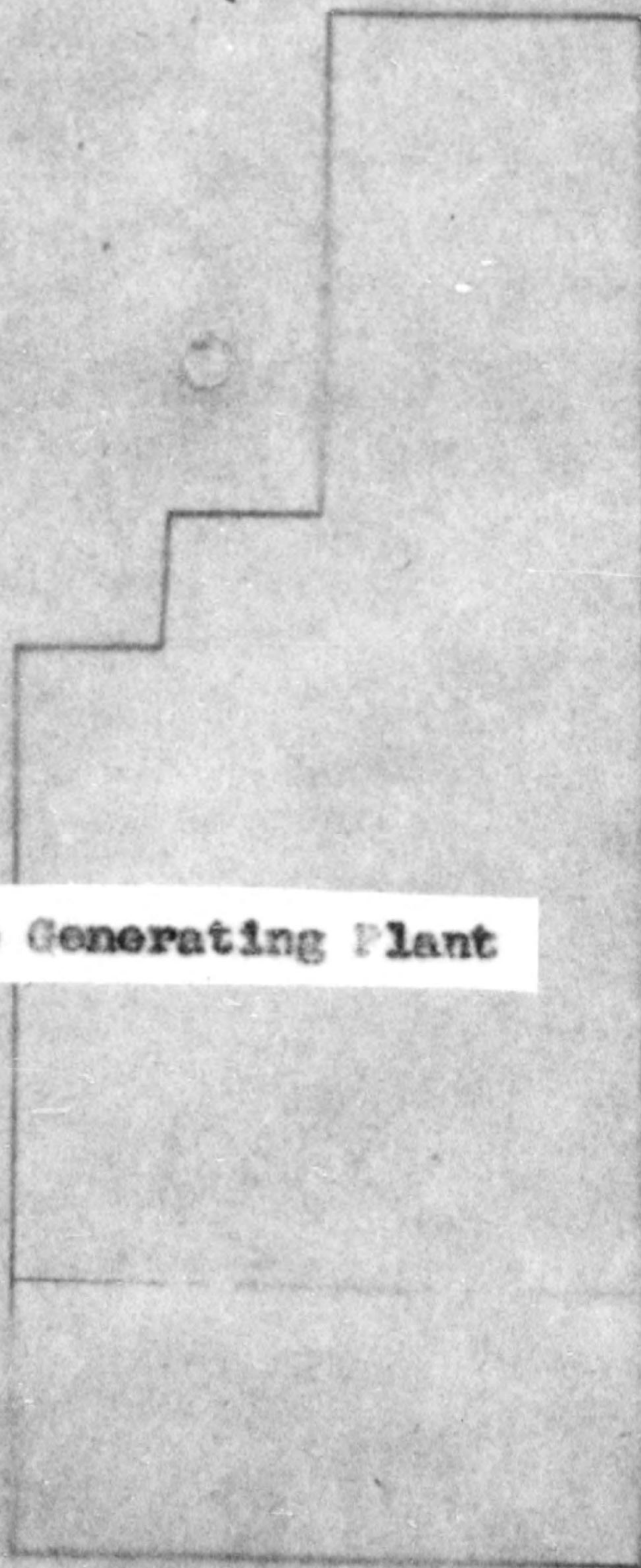
持込

Additionally Installed  
(non-reparation)

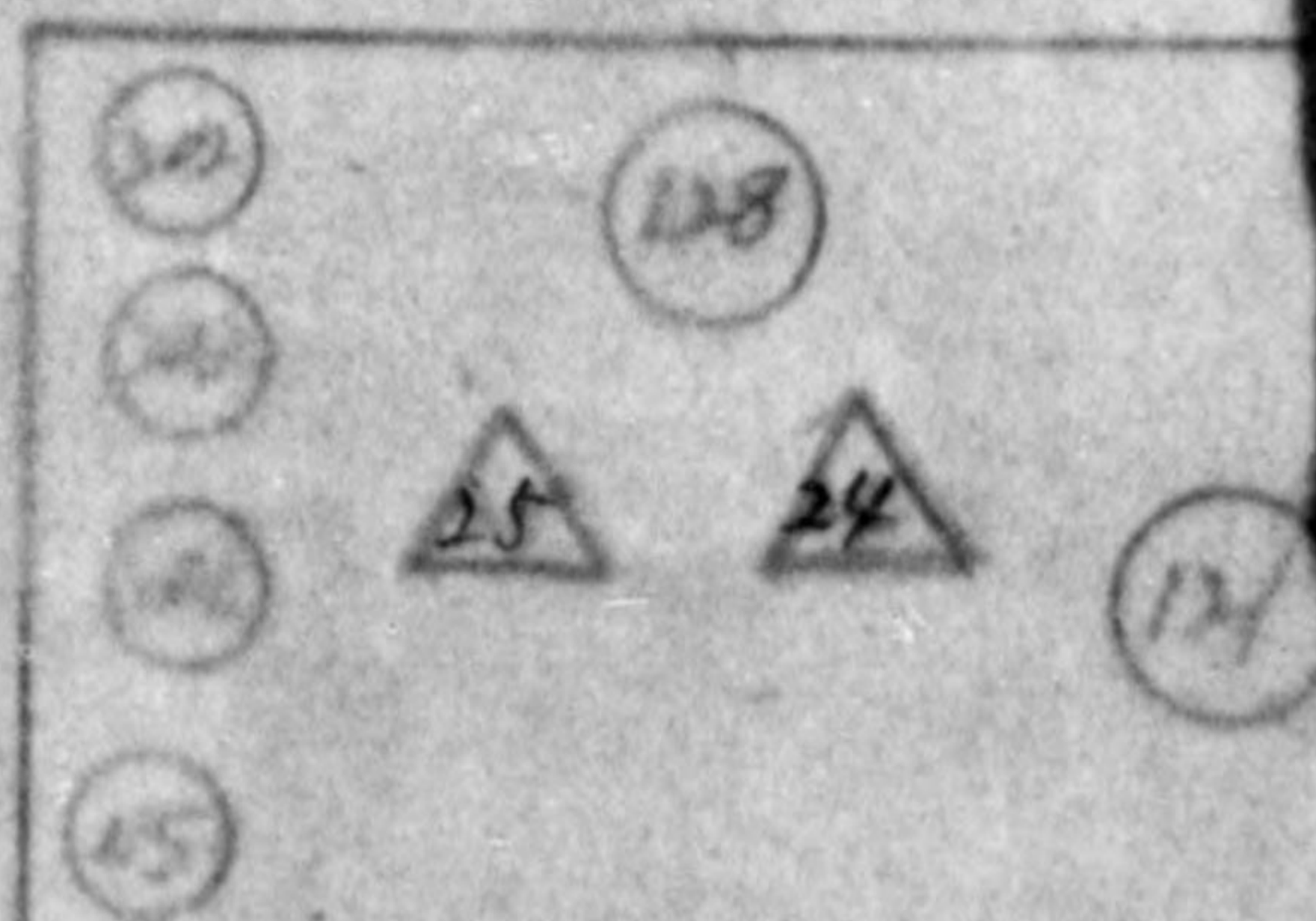
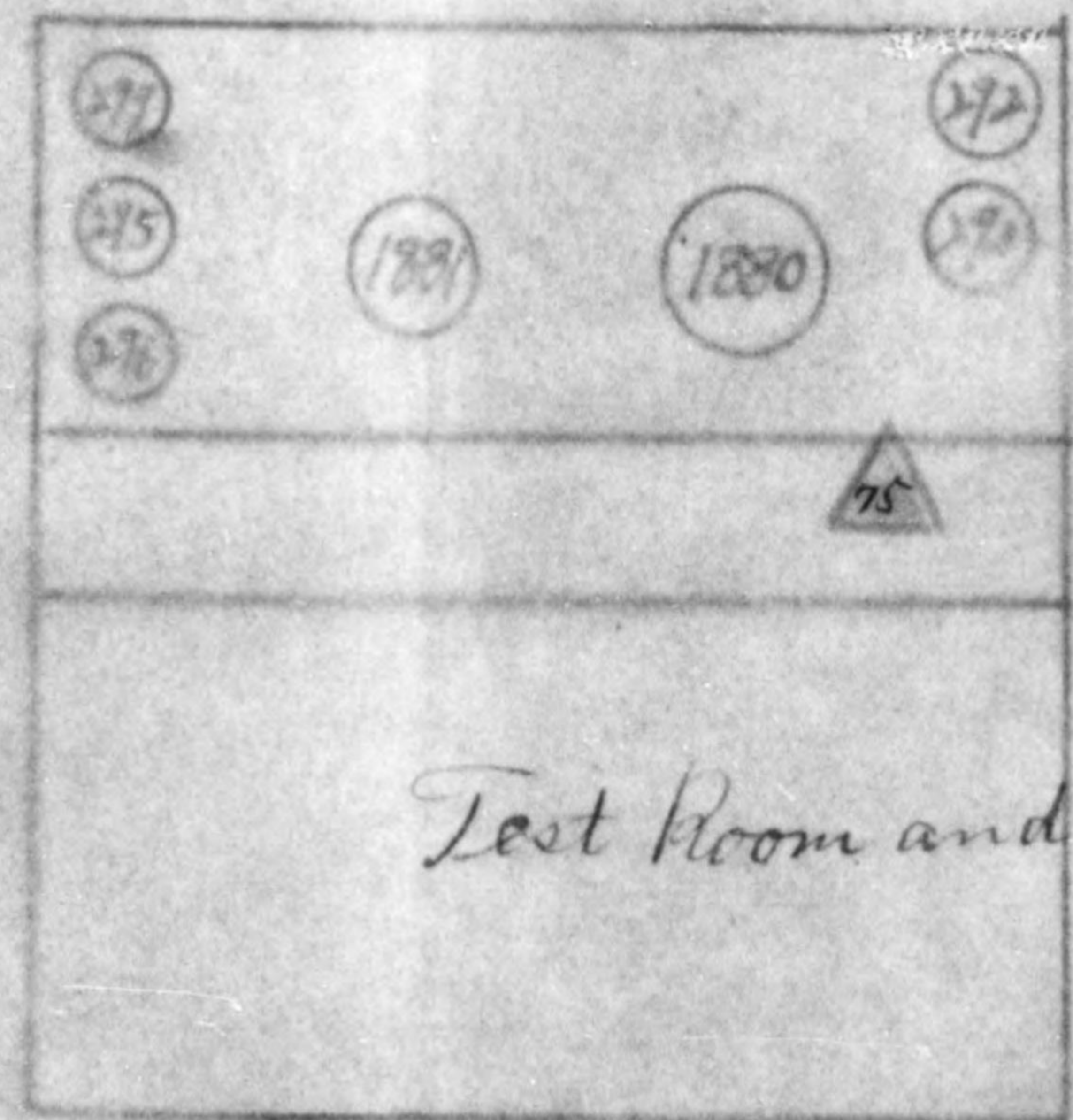


移動

Reparation Machine



Acetylene Generating Plant



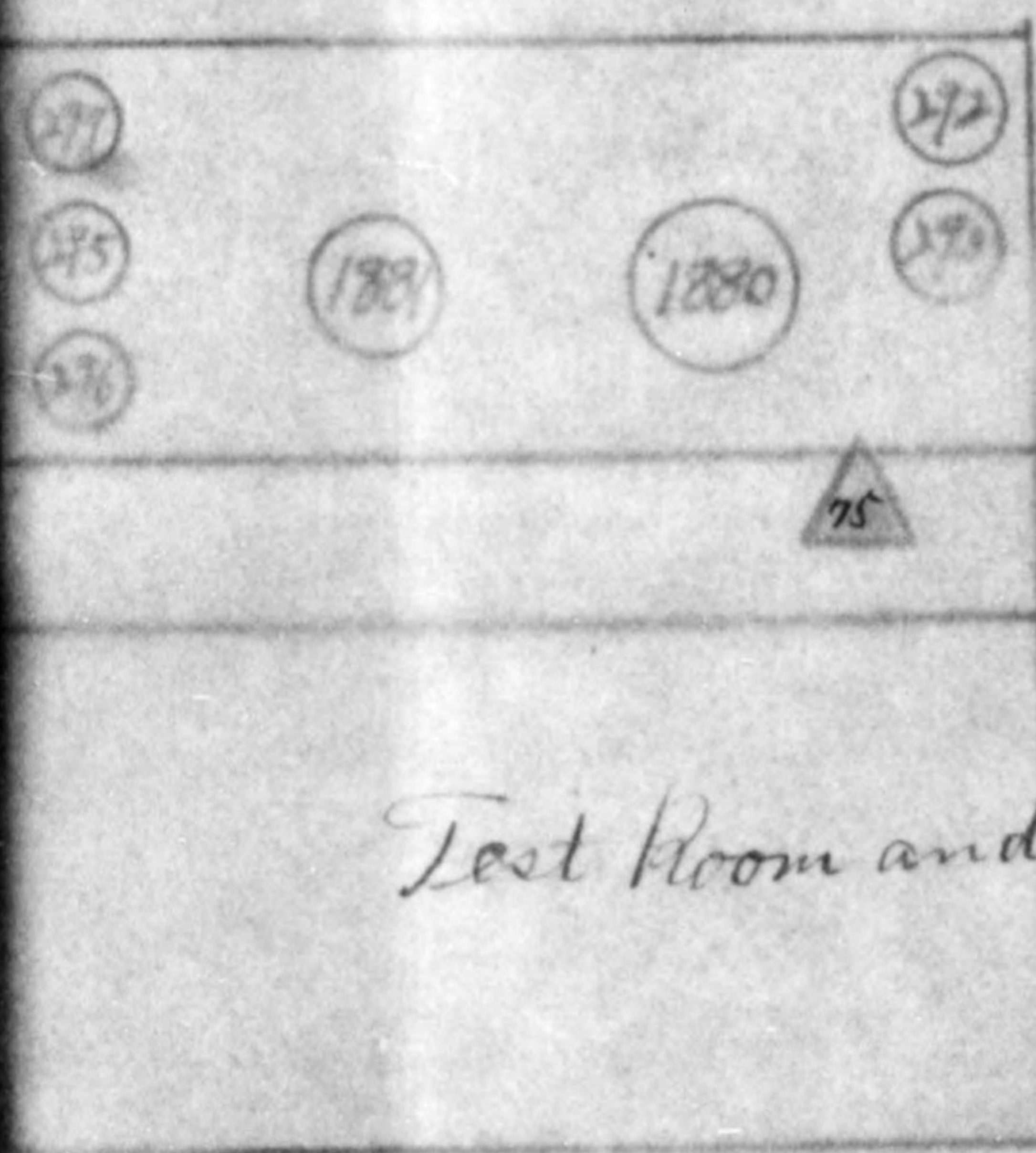


Reparation Machine

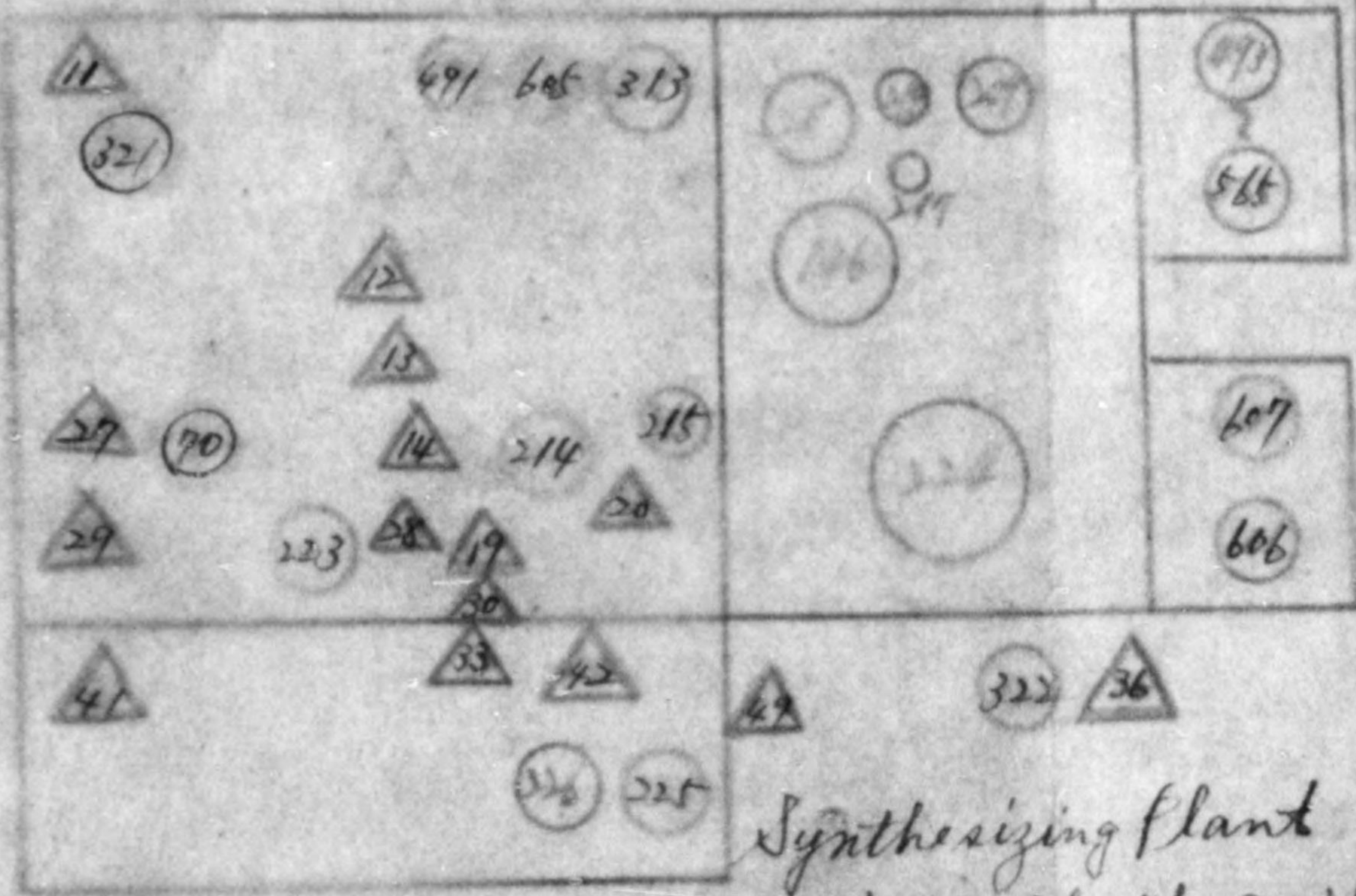
Additionally Installed Machine  
(non-reparation machine)

Reparation Machine

243

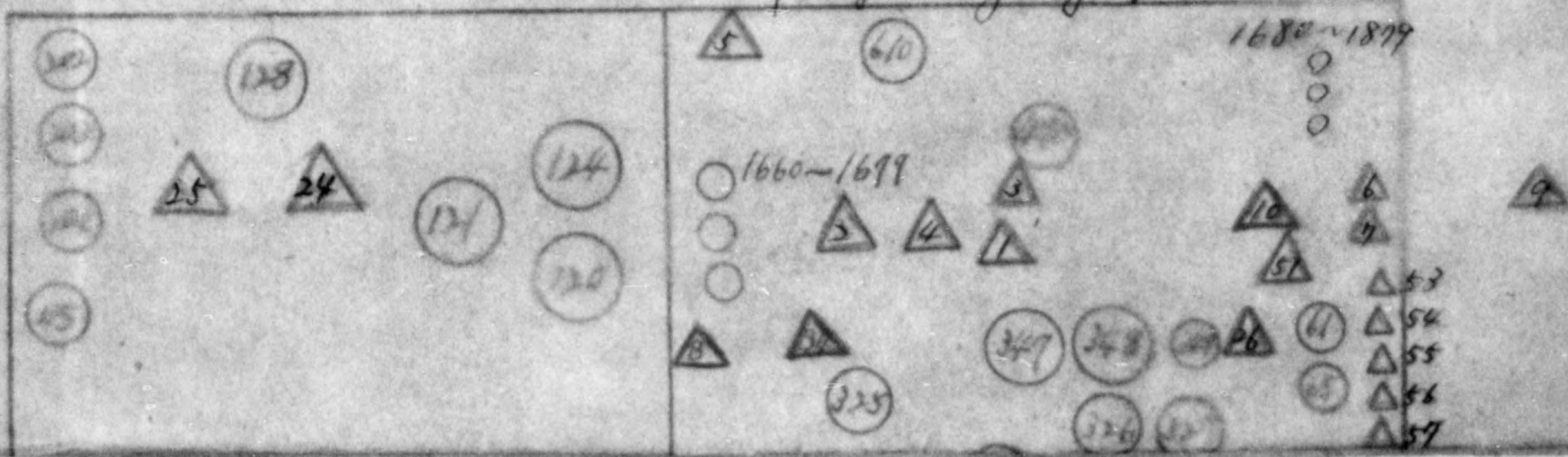


Test Room and Office

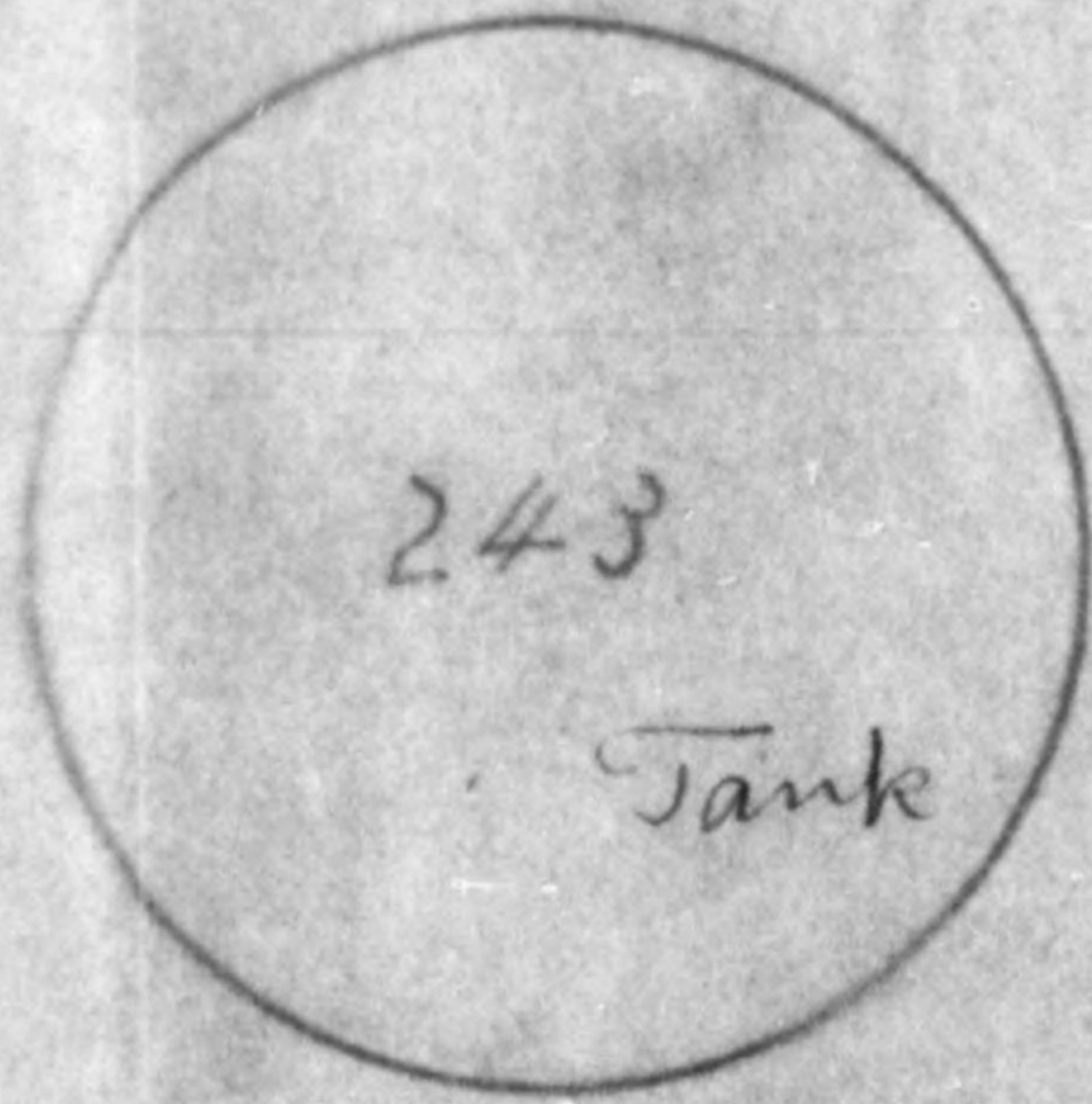


Synthesizing Plant  
of Hydrochloride Acid

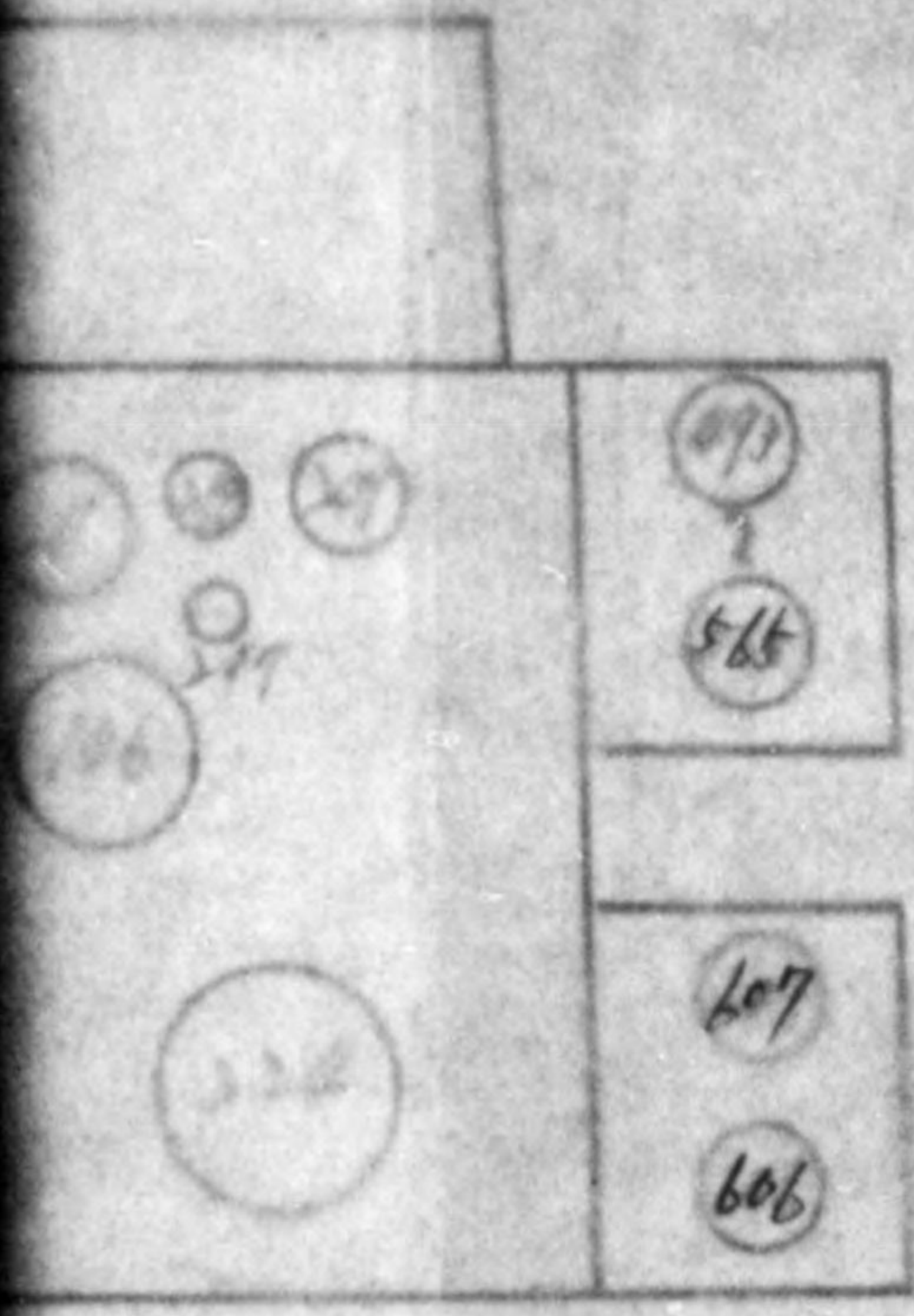
Polymerizing Plant





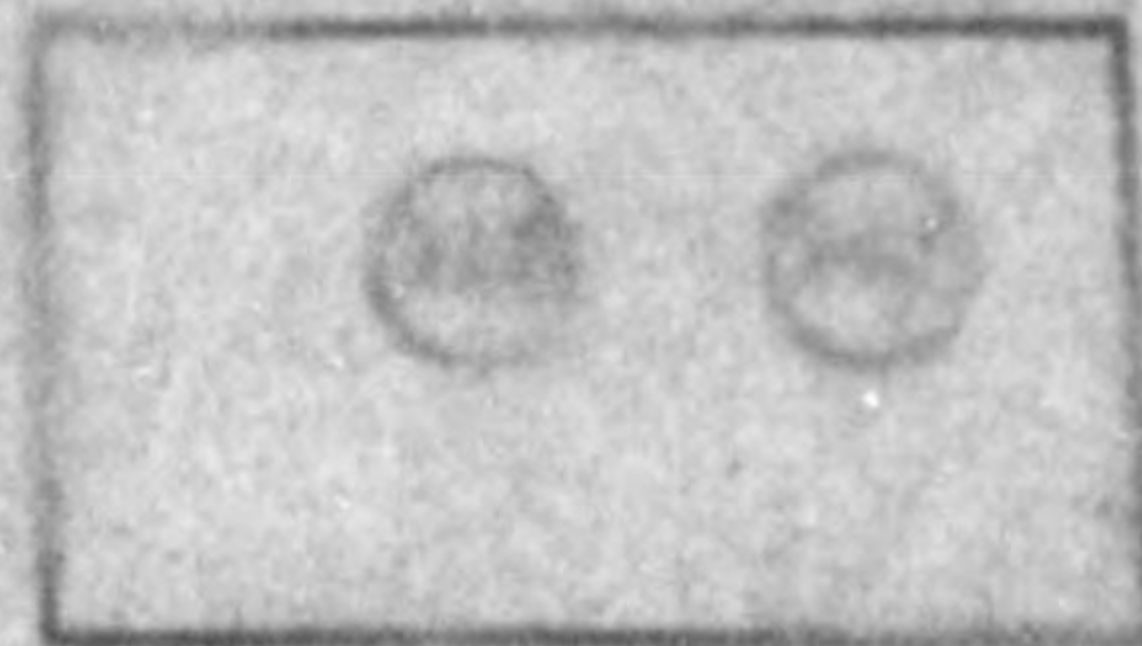


Arrangement of Machinery in Synthetic Rubber Plant  
 UOZU FACTORY, THE NIPPON CARBIDE INDUSTRIES



Synthesizing plant  
 Hydrochloride Acid

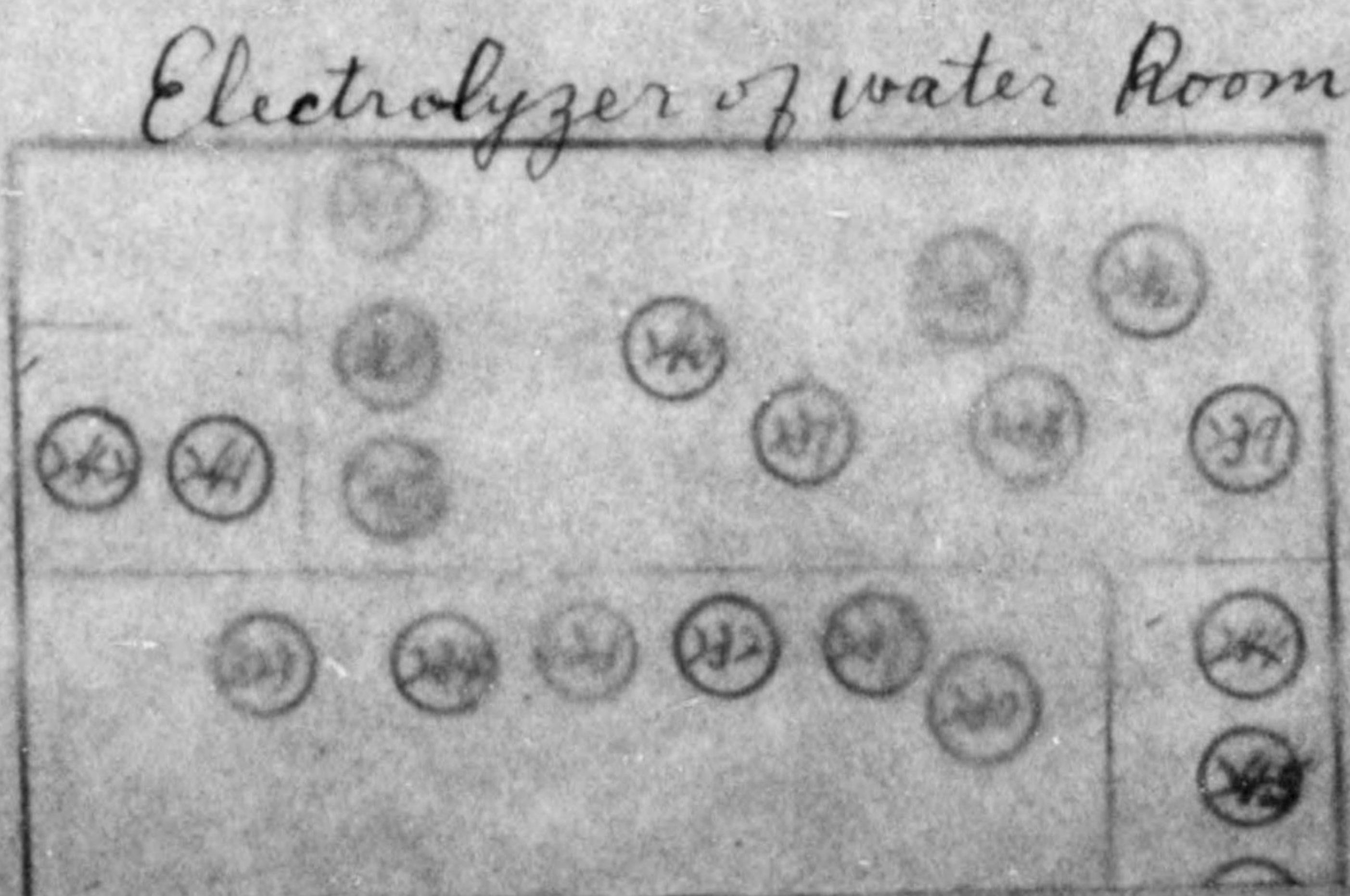
608 607



Pump Room No. 2



Roll



Electrolyzer of water Room



Regener



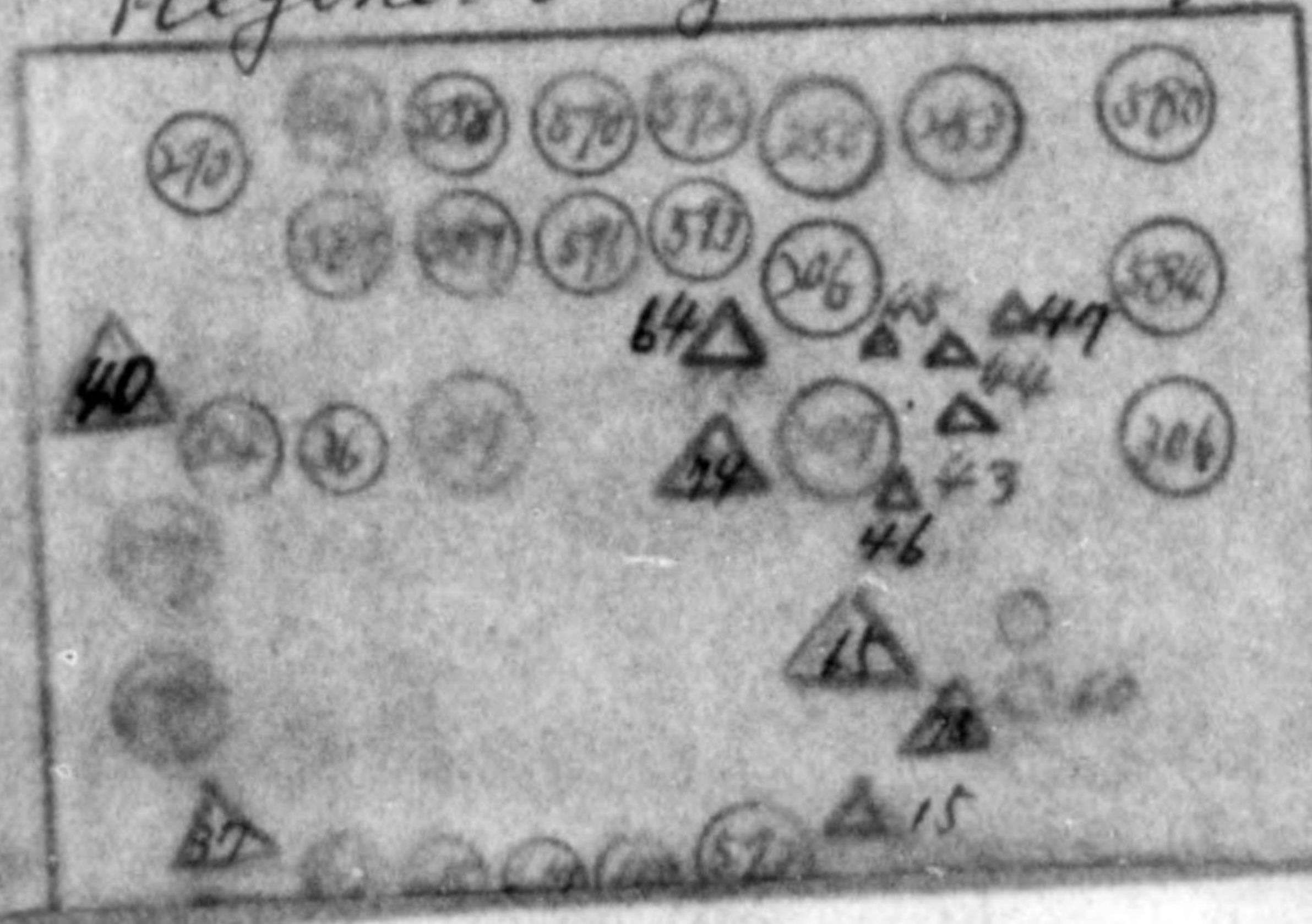
... in Synthetic Rubber Plant  
... THE NIPPON CARBIDE INDUSTRIAL CO., LTD.

*Roll Machine Room*



Room No. 2

*Regenerating Plant of Catalyst*

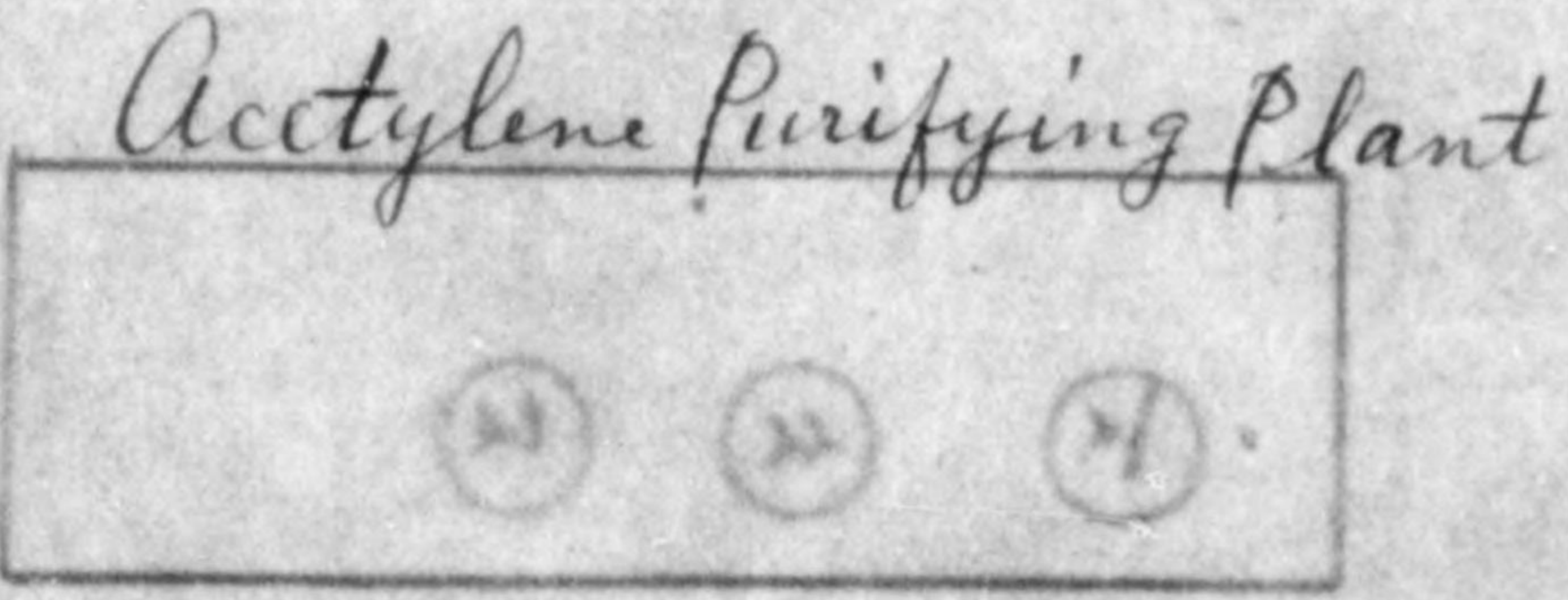
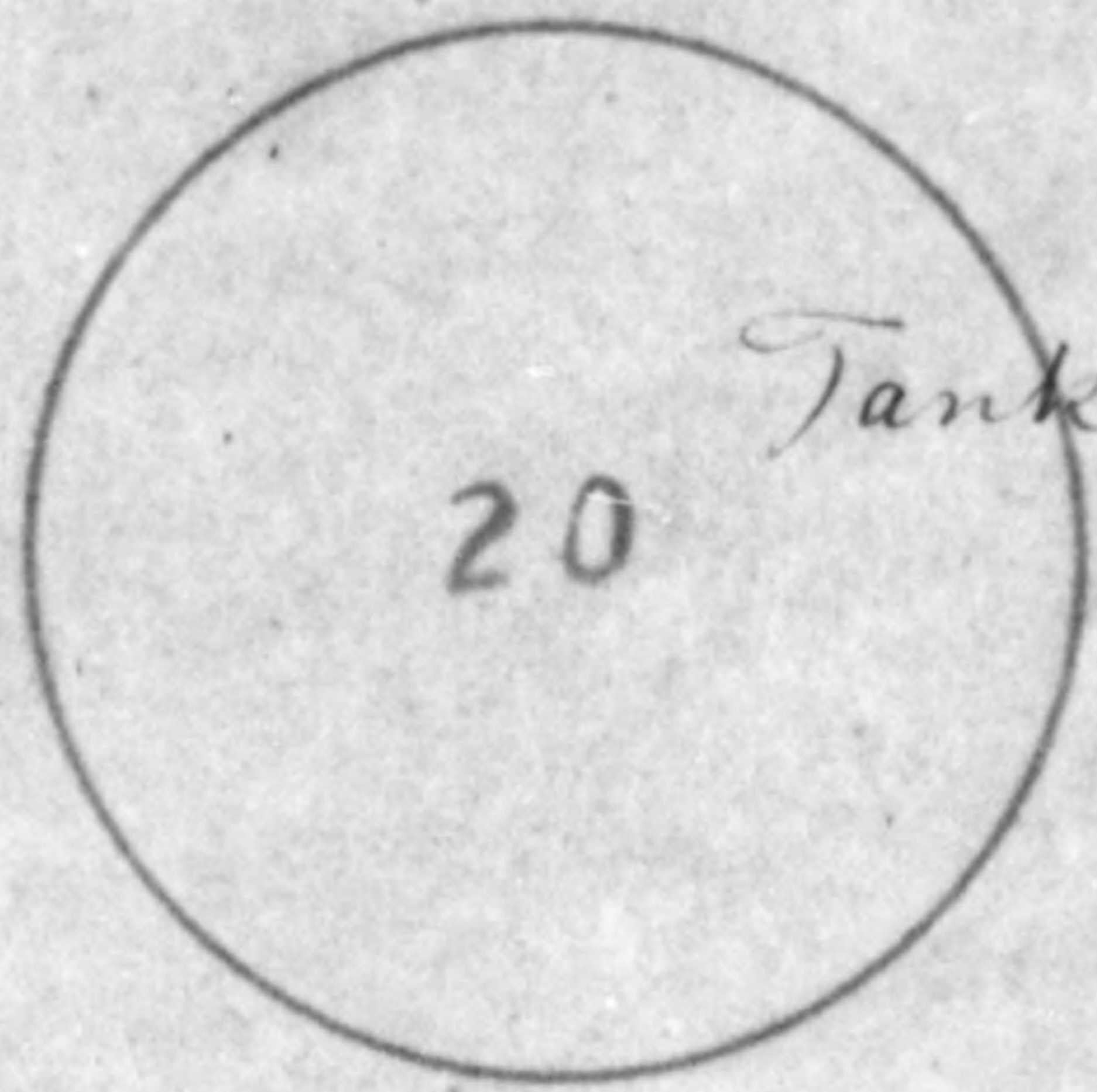


○○○ 390~409  
○○○ 410~429



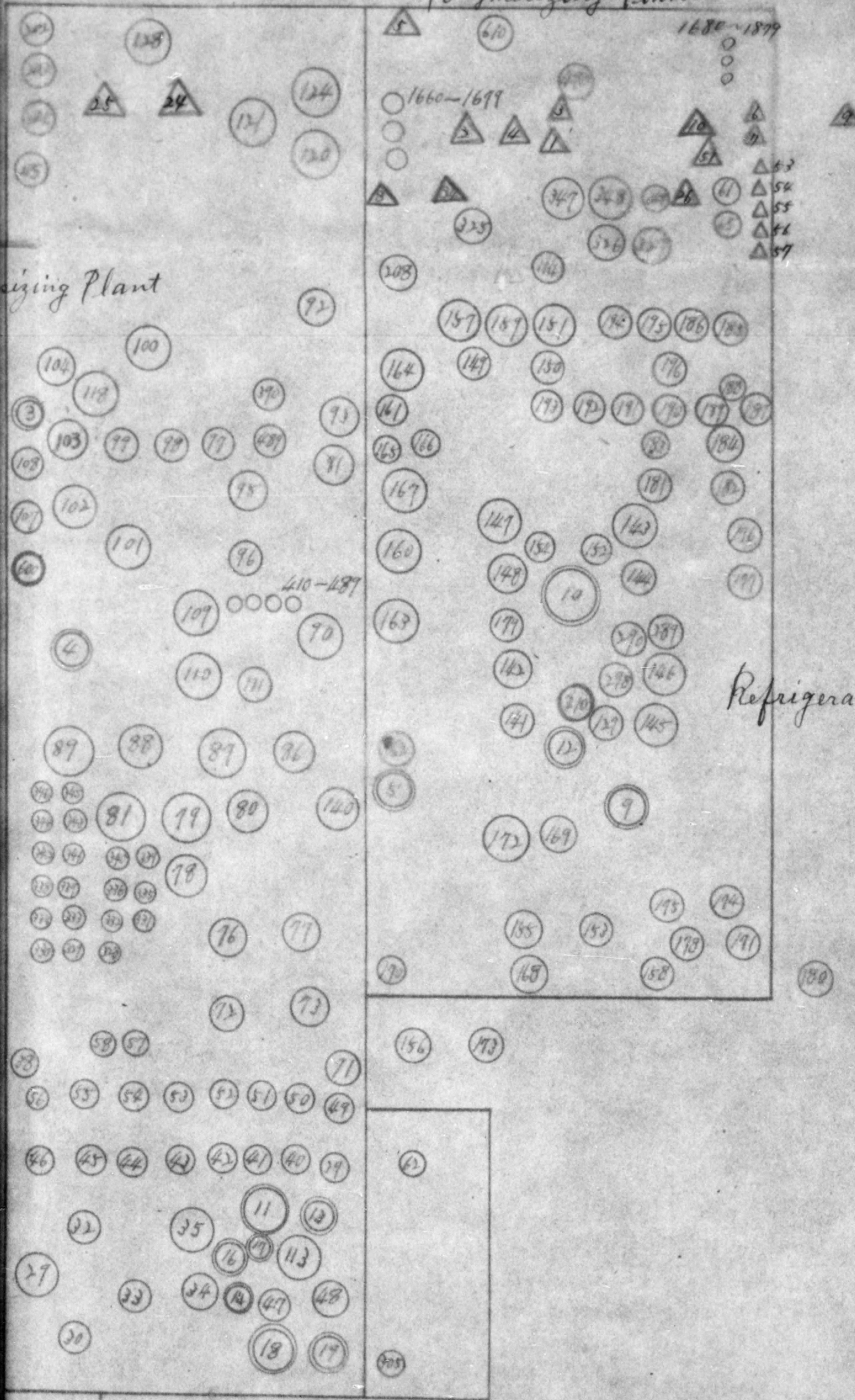


*Synthesizing Plant*





Polymerizing Plant



sizing Plant

Refrigerating Plant

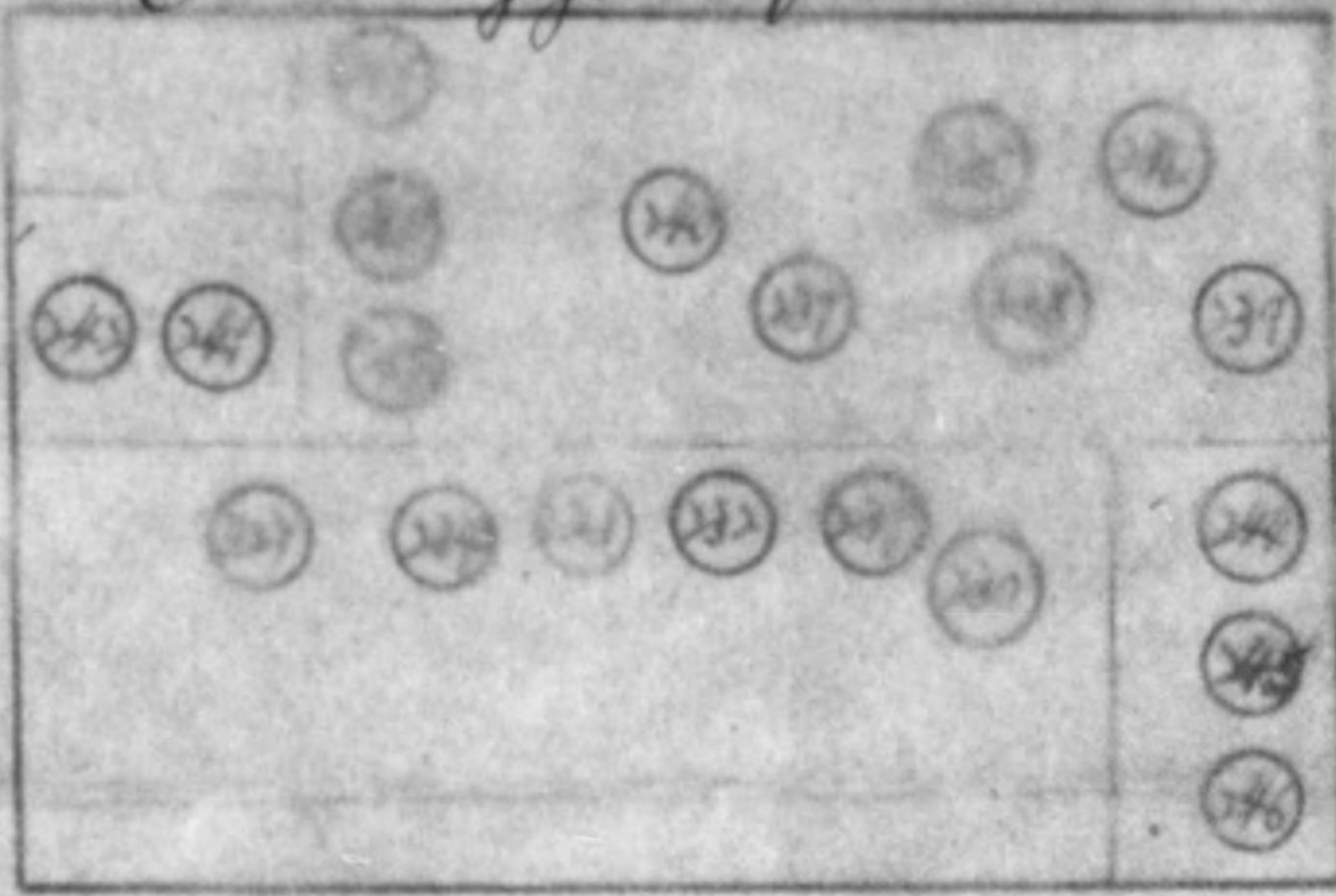
1680-1877

1660-1699

1870-1877

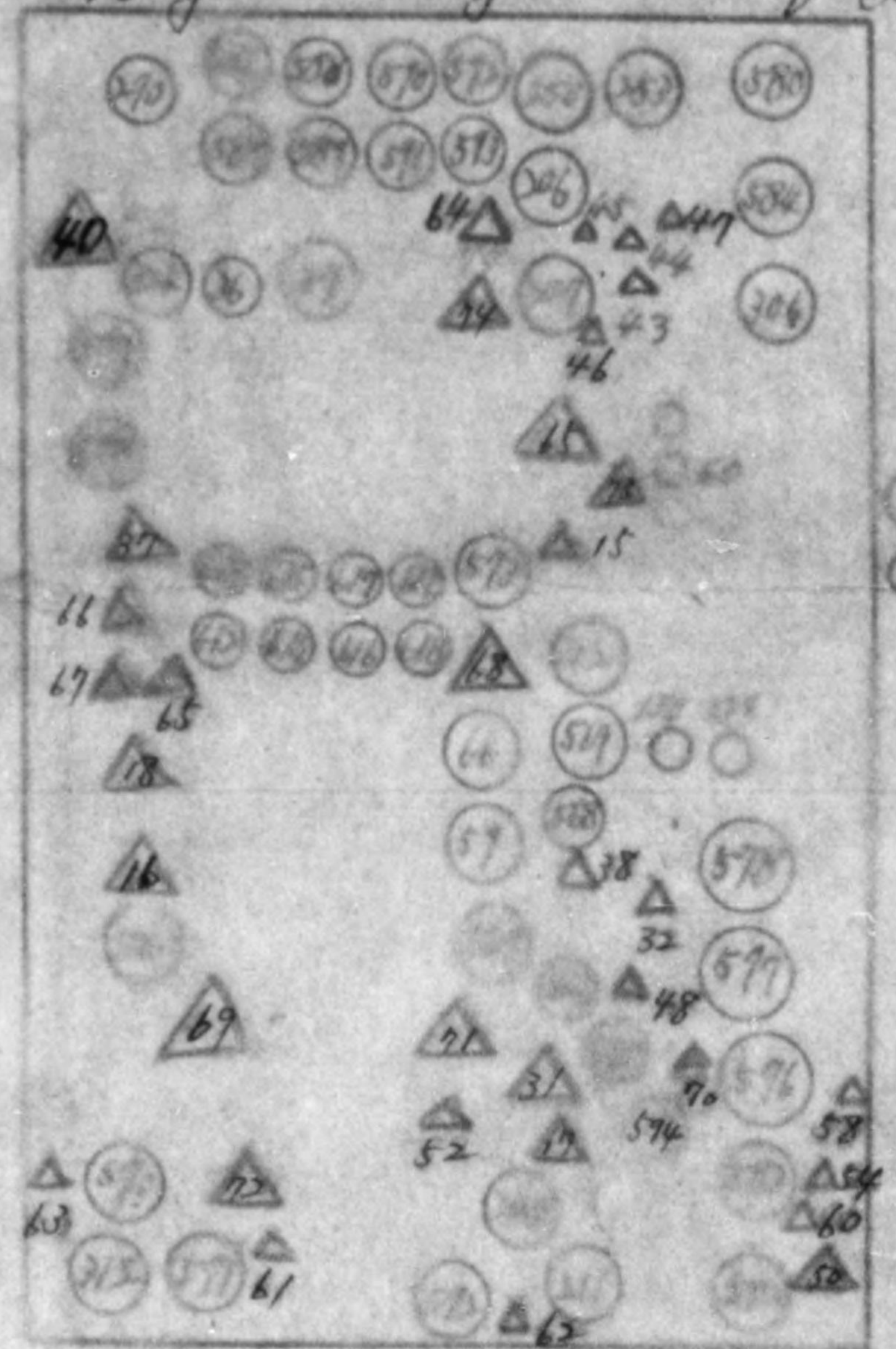


Electrolyzer of water Room

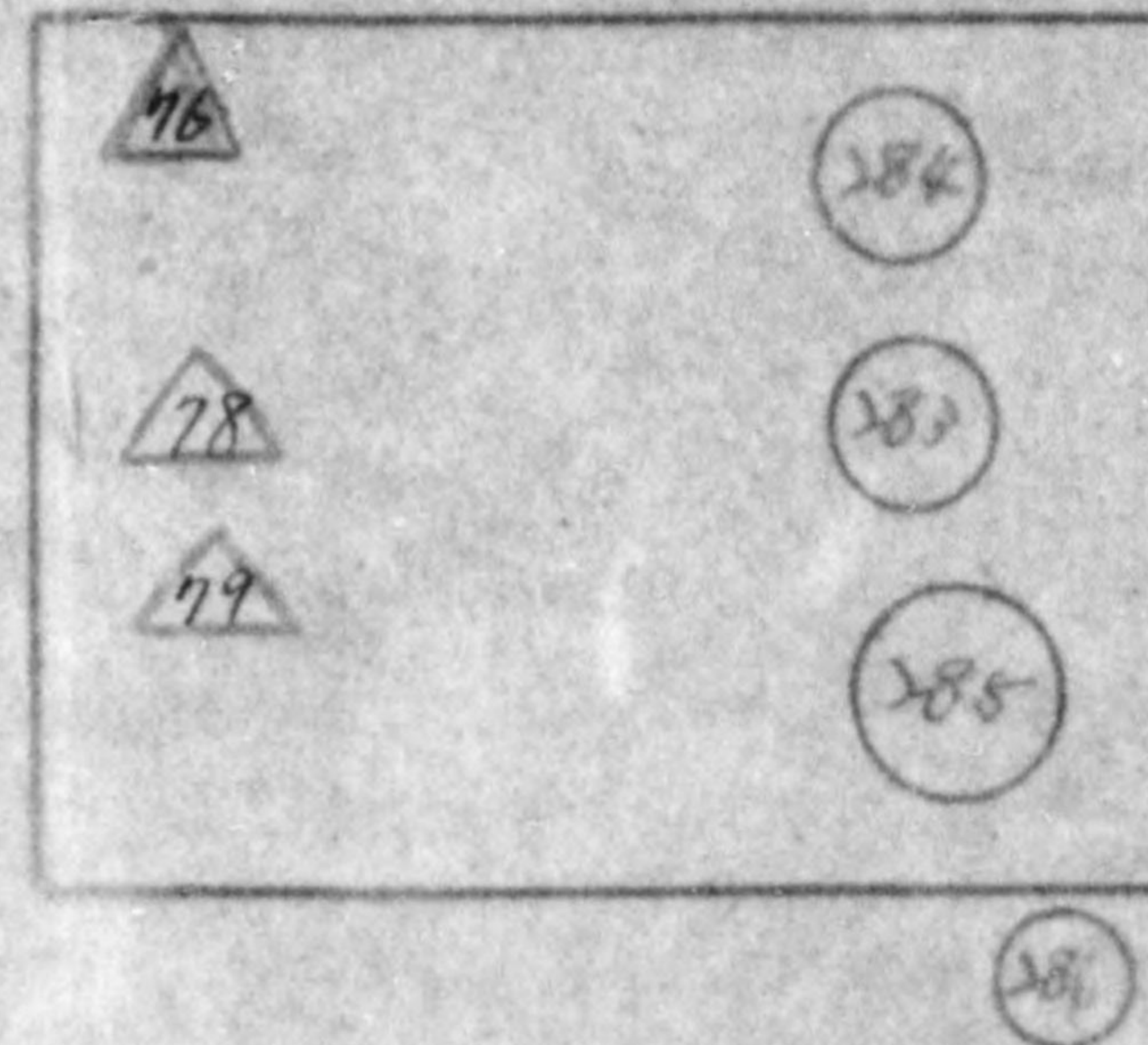


○○○ 1620~1637

Regenerating Plant of Cat



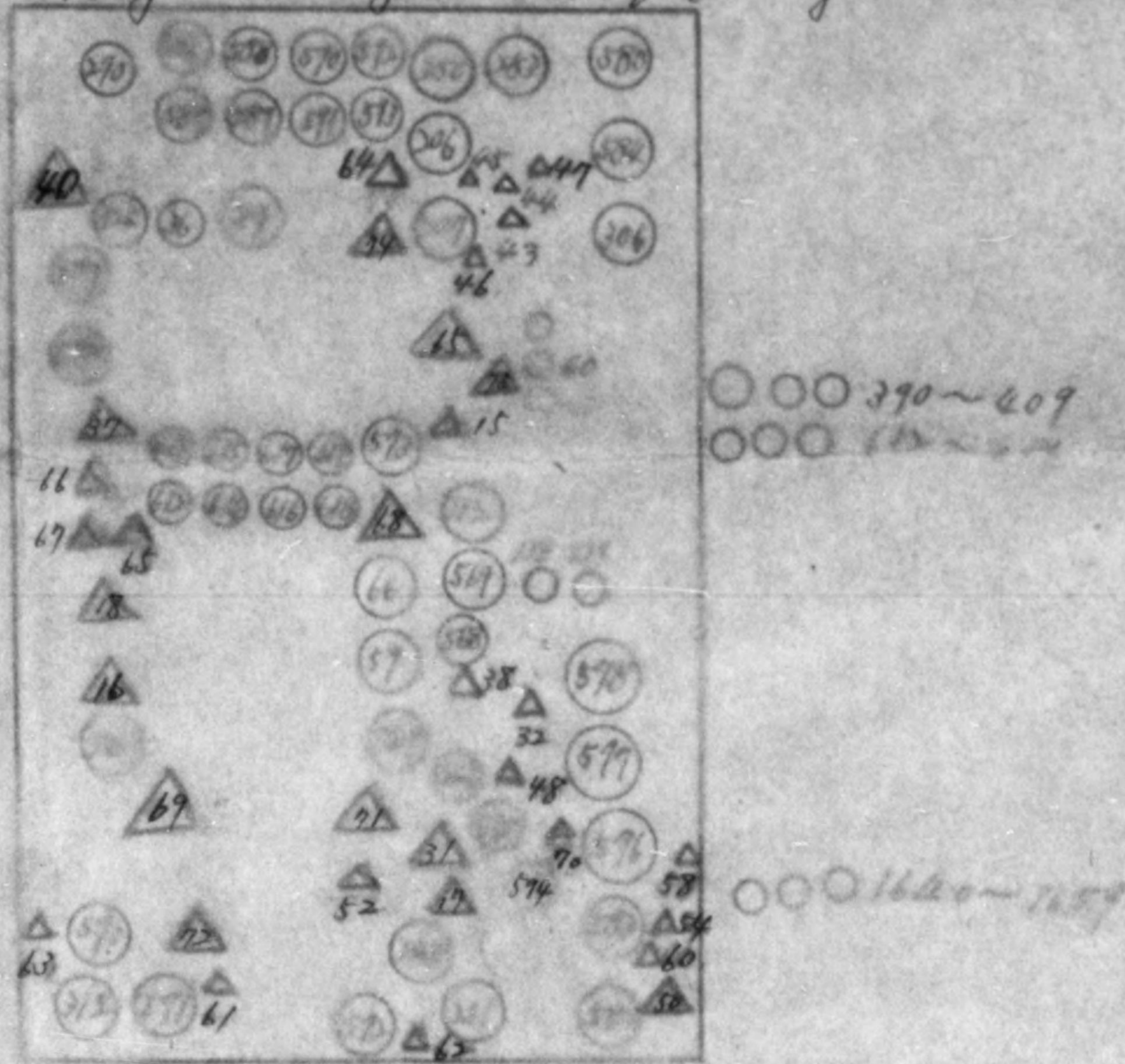
Boiler Room



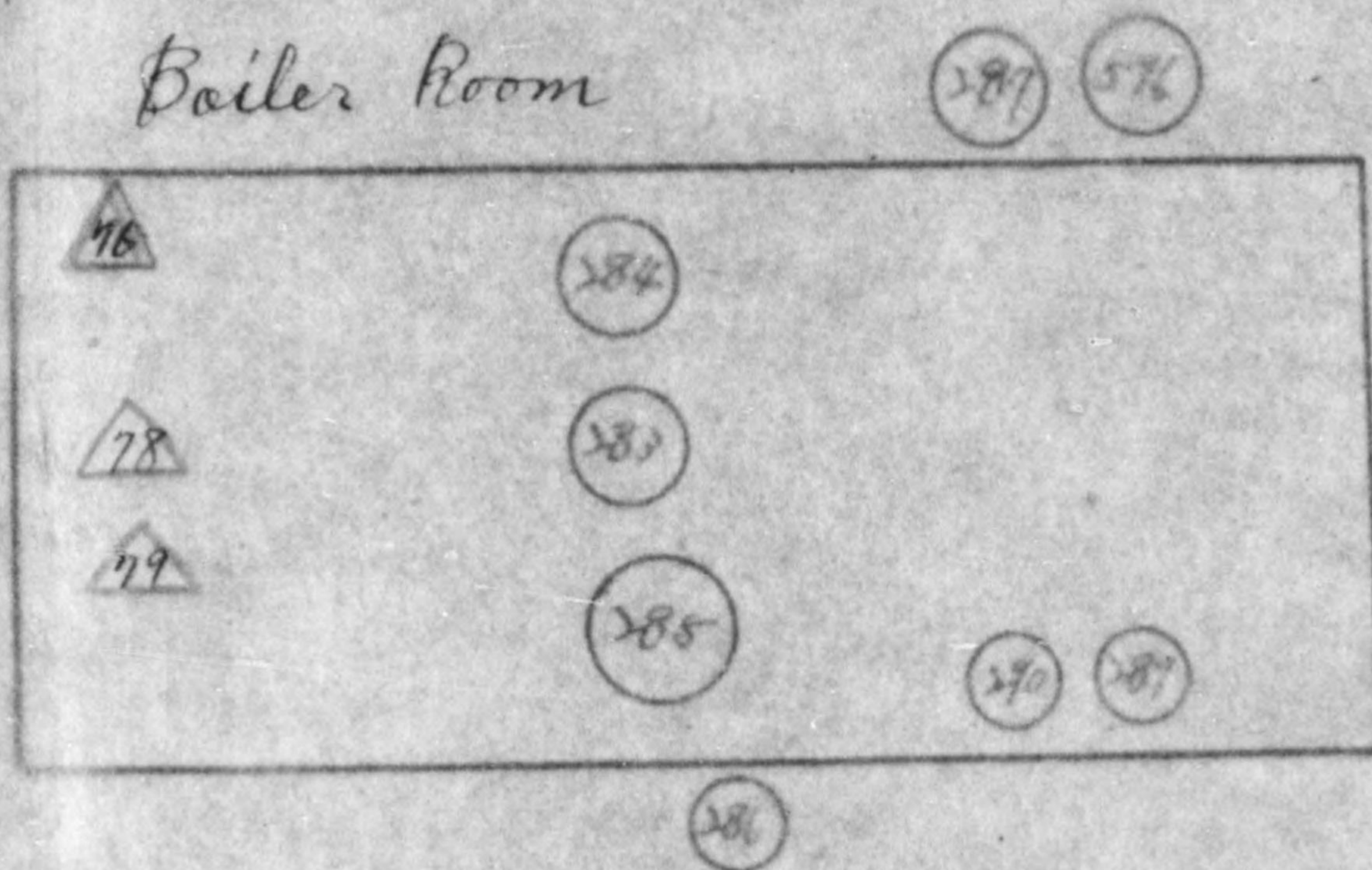
○○○ 620~1619



Regenerating Plant of Catalyst



Boiler Room



○ 620~1619



To: Capt. Eugene Moss

Toyama Mil. Govt. Team

From: Uozu Factory,

The Nippon Carbide Industrial Co., Ltd.

Date: Apr. 4th, 1947.

Re: List of Reparation Machinery Located outside  
Reparation Plant Site



Information in reference to this list;

The whole Synthetic Rubber Plants of our Factory, soon after the termination of the War, was completely closed. But we determined to contribute towards the reconstruction of post-war Japan's economy and the increase of food production; and we have been planning to enlarge the equipment to triple the current capacity of producing Carbide Cyanamide.

Besied, for the purpose of electric salt-manufacture as a means of promoting the welfare of our employees, part of the equipment in the closed Synthetic Rubber Plant has been utilized.

As the annexed List shows, to achieve those two purposes above-mentioned, the removal of the necessary items of equipment to the Fertilizer Plant, the Carbide Plant, and the Salt-Manufacture Plant were done, and they are now being utilized.

In Oct. 17th, 1946 the Synthetic Rubber Plant was designated as an interim reparation plant. And great care has been taken to preserve the reparation equip.

In Nov. 30th, 1946, SCAP approval of the conversion and continuance of operation was granted. And by utilizing the equipment of the Synthetic Rubber Plant, the manufacture of such medicines as Sulphanylguanidine, Belphenin, Aspilin, and Aceto aldehyde and rubber boots was begun and is still being continued.

( to be continued )



As the List shows, the part of the equipment which had been removed out side from the Synthetic Rubber Plant for the purpose of manufacturing medicines before its designation as an interim reparation plant, are now being used in manufacturing the medicines above-mentioned at the place where it has been removed.

But great care is taken to preserve the equipment.

Location of Machinery is shown on the annexed Arrangement.

Remarks; The locations of No.64 Motor, No.216 Oil separator, No.227 Silica tube, No.254, 255 Turbine pumps, and No.314, 315 Carrying pots for catalyst, mentioned in the formerly presented Reparation Machine List, have been found erroneous as the result of investigation.

I certify that the fact in this list is true and correct.

For Supperintendent

Signed: Shiro Takamizawa  
in charge of the Apparatus Section  
Uozu Factory, The Nippon  
Carbide Ind. Co., Ltd.



LIST OF REPARATION MACHINERY LOCATED OUTSIDE REPARATION PLANT SITE

Mar. 1947. Investigate

Uezu factory, The Nippon Carbide Industrial Co., Ltd.



No.	Name of Machine	Amt.	Manufactures model Number	Condi
1	Brake crusher	1	Double floor type 5KT/H 125mm X 6mm	
2	Motor	1	Open type. 15 HP	
6	Winch	1		
7	Motor	1	Open type 15 HP	
8	Hand-winch	1	By hand type	
15	Motor	1	Open type 2 HP	
31	"	1	Open type	
63	Pump	1	Eddy type	
64	Motor	1	Enclosed type 2 HP	
68	"	1	"	
74	Pump	1	Eddy type	
75	Motor	1	Double open type 2 HP	
82	Pump	1	Eddy type	
83	"	1	"	
84	Motor	1	All enclosed type 3 HP	
85	"	1	"	
105	Reaction vessel No.2	1	Double can type 1400 X 1750	
116	Evaporator for crude C.P.	1	Vertical multi tube type 1100 X 1200	
117	Rectifier for C.P.	1	Vertical cylinder type 294 X 3350	
119	Dryer for C.P.	1	"	CaCl <sub>2</sub> plug
122	C.P Condenser by brine cooling	1	Brine type 450 X 2420	



Condition of machine	Location	Description
1	Carbide material plant	working for cookes crushing
1	Electric plant	now keeping ..
1	Limestone plant	working for limestone wind up
1	Electric plant	now keeping ..
1	Carbide plant	working for worke repairing
1	salt plant	" for salt making
1	sulphonylguanidine plant	" for farmacy sulphonylguanidine
2	Refrigerating plant of laboratory	" for " saccharin
2	Salt plant	now transfer Salt making
1	Refrigerating plant of laboratory	working for farmacy Alcohol, saccharin
1	sulphonylguanidine plant	" " sulphonylguanidine
2	"	" " "
1	"	" " "
1	"	" " "
1	"	" " "
1	"	" " "
1	"	" " "
2	Accelarater plant	" for rubber accelarator
1	sulphonylguanidine plant	" for farmacy sulphonylguanidine
1	"	" " "
2	Aceten plant	" " Aceten
1	sulphonylguanidine plant	" " sulphonylguanidine

5mm

1200



No.	Name of Machine	Amt.	Manufactures model Number
123	Receiver for pure C.P	1	Double can type 1200 X 1500
125	Receiver for low boiling materials	1	spiral type
126	"	1	"
127	Get condenser	1	"
130	Vacuum tank	1	Vertical cylinder type 300 X 1
131	Thermometer	1	Box type Electric resistance
134	Heist	1	Mikuni type 3 KT
135	Motor	1	All enclosed type 5 HP
136	Vacuum pump	1	Vertical two cylinder 4 X 4 in
137	Motor	1	Half enclosed type 7.5 HP
197	Exhaust fan	1	
198	Motor	1	All enclosed type
201	Evaporator for polymerized C.P	1	Box poly floor type 1000X1500X
205	Evaporator for polymerized C.P	1	"
212	Blower made by porcelain	1	Diameter 80 mm
213	Motor	1	Open type 1/2 HP
216	Oil separator	1	
220	Neutralizing tower for exhaust gas	1	Acid proof type earthenware ma
221	Storage tank for catalyst	1	"
222	"	1	"
227	Silica tube	1	
247	Alkali tank.	1	30 m <sup>3</sup>
249	Centrifugar	1	for Belt spiral type 24 X 12
252	Motor	1	All enclosed type 3 HP
254	Turbine pump	1	Diameter 2 inea 2 HP



Number	Condition of machine	Location	Description
1500	1	sulphonylguanidine plant	working for pharmacy sul.gua.
	1	Receiver for "	" " "
	1	Carbonic guanidine plant	" " carbonic guanidine
	1	sulphonylguanidine plant	" " sul.gua.
type 300 X 1500	1	"	" " "
resistance type	3	laboratory plant	" " saccharin
	1	sulphonylguanidine plant	" " sul.gua.
5 HP	1	"	" " "
er 4 X 4 inch	1	carbonic guanidine plant	" " carbonic guanidine
7.5 HP	1	"	" " "
	2	fertilizer plant no.2	" for fertilizer
	1	"	" " "
1000X1500X1500	1	sulphonylguanidine plant	" for pharmacy sul.gua.
	1	"	" " "
	1	"	" " "
	1	"	" " "
	1	"	" " "
erthenware mde	1	"	" " "
	3	"	" " "
100 m	3	"	" " "
"	3	"	" " "
	1	storehouse	now keeping
	1	fertilizer plant no.2	working for fertilizer
type 24 X 12 inch	1	salt plant	" for salt
3 HP	1	"	" " "
4 HP	1	storehouse	now keeping



No.	Name of Machine	Amt.	Manufactures model
255	Turbine pump	1	Diameter 2 inch 2 HP
256	Agitator	1	Acid proof porcelain
257	"	1	"
258	"	1	"
259	"	1	"
260	"	1	"
261	"	1	"
262	"	1	"
263	"	1	"
264	Air tank	1	Vertical cylinder type
265	Centrifugal pump	1	
266	Meter	1	3 HP
281	Exhaust fan	1	Vertical hydronic type
282	Meter	1	Enclosed type 10 HP
291	Testing machine for tensile strength	1	Sheppa type
294	Cutter test piece	1	
299	Meter	1	2 HP
300	Vacuum pump	1	Portable type made by
301	Meter	1	Half enclosed type 1/
302-304	Tank for hot-water	3	Box type 1000 X 1000
314-316	Carrying pot for catalyst	3	Enamel lining made by
317-318	Polymerizing tank	2	Enamel lining cylinder
350-389	C.P. Vessels	40	Box type made by Almini



model number	Condition fo machine	Location	Description
2 HP	1	storehouse	new keeping
elatin made of	1	Accelerator plant	working for rubber accelerator
	1	"	"
	1	sul.gua. plant	for farmacy sul.gua.
	1	"	"
	1	"	"
	1	"	"
	2	"	"
	2	"	"
er type made of iron	1	"	"
	1	Carbonic guanidine plant	Carbonic guanidine
	1	"	"
lie type 16x16in. 100lbs	1	sul.gua. plant	sul.gua.
10 HP	1	"	"
	1	laboratory	natural rubber
	1	testing room	gelphenin
	1	Hizenaphol plant	Hizenaphol
made by iron add 4 leg's	1	laboratory	for laboratory
type 1/4 HP	1	"	"
X 1000 X 100	1	sul.gua. plant	for farmacy sul.gua.
made by iron	2	"	"
cylinder typ 1200x1800	2	"	"
by Alminium	1	"	"



To: Capt. Eugene Moss

Mar. 28th, 1947.

Toyama Mil. Govt. Team

Through: Toyama Prefectural Office

From: Uozu Factory,

The Nippon Carbide Industrial Co., Ltd.

751 Motoshin, Michishita-mura, Shimonikawa-gun,

Toyama Pref.

Re: Application for Exemption of Part of Buildings  
of Reparation Plant

I entreat your office to grant approval  
to this application.

for Superintendent

Applicant: Suet. Takamura

Title: Chief of the Affairs Section

Enclosure: No.1--Arrangement Diagram of Machinery  
in Acetylene Generating Plant  
No.2--Arrangement Diagram of Equipment removed  
No.3--Arrangement Diagram of Building in  
Synthetic Rubber Plant  
No.4--Bird's-eye view of the Uozu Works



Application for Exemption of Part of Buildings  
of Reparation Plant

A. Name of Building under Application for Exemption.

Acetylene Generating Plant ( in Synthetic Rubber Plant )

B. Location of Building under Application for Exemption.

Synthetic Rubber Plant, Uozu Factory,  
The Nippon Carbide Industrial Co., Ltd.  
751 Motoshin, Michishita-mura,  
Shimoniikawa-gun, Toyama Pref.

( See Arrangement No.3 and No.4 )

C. General Description of Building :

1. Name: Acetylene Generating Plant

2. Area: 254 m<sup>2</sup>

Measurement: 2,133 m<sup>3</sup>

3. Construction: iron-ferro concrete, Japanese-tile roofed,  
two storeyed.

4. Durability: some 50 years

5. Damaged Part: some 10 %

6. Use: now unused

D. Products during the War.

Acetylene gas, as Synthetic Rubber raw material,  
generated from Carbide.

E. Date of Designation as Reparation Plant.

Oct. 17th, 1946.



F. Reason of Exemption:

Our factory, after the termination of the War, has been enlarging the Carbide Cyanamide equipment to secure thrice the amt. of Carbide Cyanamide produced by the current equipment. The purpose of the enlargement consists in contributing towards the reconstruction of post-war Japan's economy and the increase of food production.

Thus, the enlargement works, and the repairing and preserving of the equipment have more and more been urgently needed, in order to increase the productive capacity of the fertilizer.

And the equipment for repairing that we possess, can not hoped to meet even the one-third of the need.

Now both Synthesizing Plant and Refrigerating Plant are spacious enough to hold the whole reparation equipment in Acetylene Generating Plant, and, even if removed, no obstacles will arise in reserving the equipment. If the exemption of the building of Acetylene Generating Plant should be approved, the reparation equipment will be removed into the two plants above-mentioned and preserved there. And the building of Acetylene Generating Plant will be converted into that of the repairing plant, thus we meeting the urgent need.



G. Removal Plan of Equipment in Acetylene Generating Plant  
in Case of Approval of Exemption.

No.	Name of Machine	Amt. Manufactures model Number	Condition of Machine	Plant to be removed
3	Bucket conveyer	1 Self taught type 5X9 length 3,950	1	Synthesizing Plant
4	Roll crusher	1 Double flower type 5KT/H 125mm X 6mm	1	"
5	Motor	1 Open type 25 HP	1	Refrigerating P.
9	Trolley block	1 Triple geared type 2 KT	1	"
10	Acetylene generator	1 Self taught type 120-125m <sup>3</sup> /H	2	"
11	Motor	1 Enclosed type endure explosion type 5 HP	1	Synthesizing P.
12	Acetylene generator	1 Self taught type 120-125m <sup>3</sup> /H	2	Refrigerating P.
13	Motor	1 Enclosed type endure explosion type 5 HP	1	Synthesizing P.
14	Pump	1 Spiral type	2	"
16	Pump	1 "	2	"
17	Motor	1 Open type 2 HP	1	"
18	Head tank	1 Box type	1	"
19	Head tank	1 "	1	"

The total of the items of equipment to be removed is 13 units,  
9 of which go to Synthesizing Plant and 4 to Refrigerating Plant.

( See Arrangement No. 2 )



Remark; The items of the equipment which were in Acetylene Generating Plant during the War, and were removed out of the Plant before its designation as the reparation equipment, are like the following:

No.	Name of Machine	Amt.	Location	Condition of Machine
1	Brake crusher	1	Carbide Material Plant	1
2	Motor 15 HP	1	Electric Plant	1
6	Winch	1	Limestone Plant	1
7	Motor 15 Hp	1	Electric Plant	1
8	Hand-winch	1	Carbide Plant	1
15	Motor 2 HP	1	Salt Plant	1
Total:		6 units		

H. Plan of Use of Building under Application for Exemption.

The items of the equipment decided to be purchased:

Lathes: 5 units (14 foote-- 1 unit, 12 foote--1 unit, 8 foote--1 unit,

6 foote--2 units )

Planer: 1 unit ( 8 foote ) Shaper: 1 unit ( 24 inches )

Grinding Machine: 1 unit Tool Grinding M.: 1 unit

Drilling M.: 1 unit Radial Drilling M.: 1 unit (1500)

Universal Milling M.: 1 unit Hammer: 1 unit ( 40 in.)

Sawing M.: 1 unit

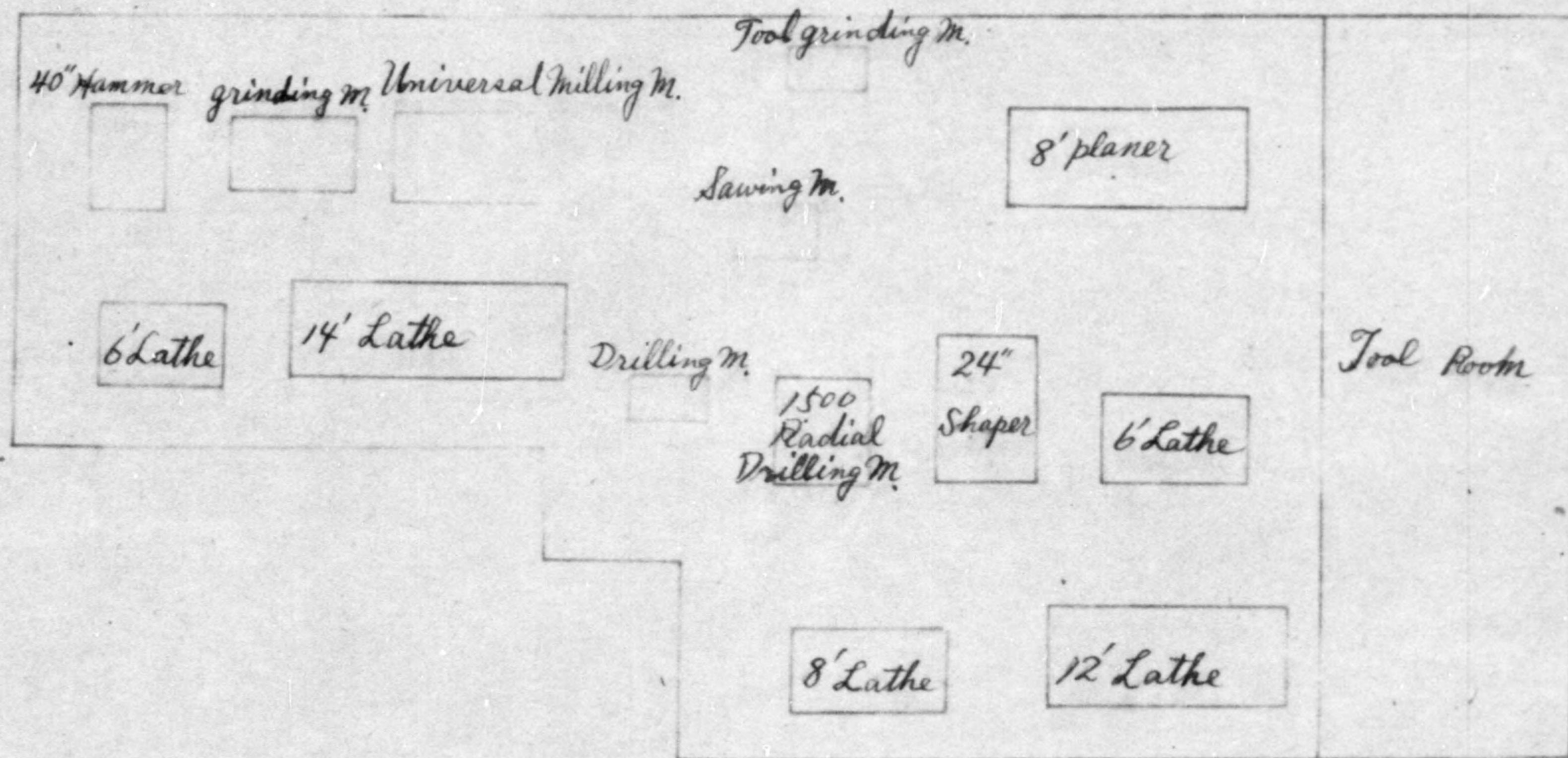
The total of the machine tools above-mentioned is 14 units, all of which are installed, and part of the Plant is to be used as a tool room.

( See Arrangement No. 1 )



No. 1

Arrangement Diagram of machinery in Acetylene generating plant.



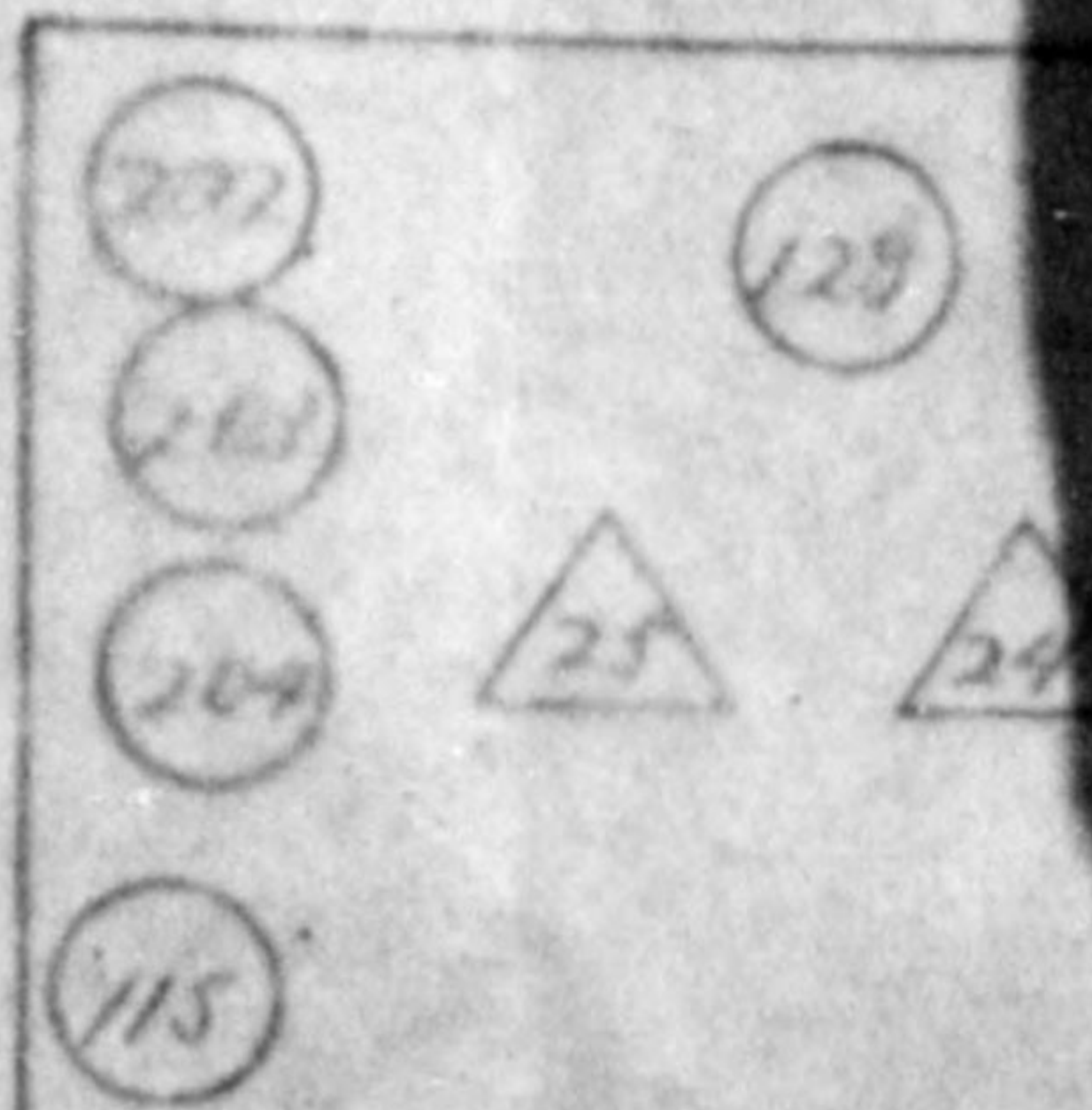
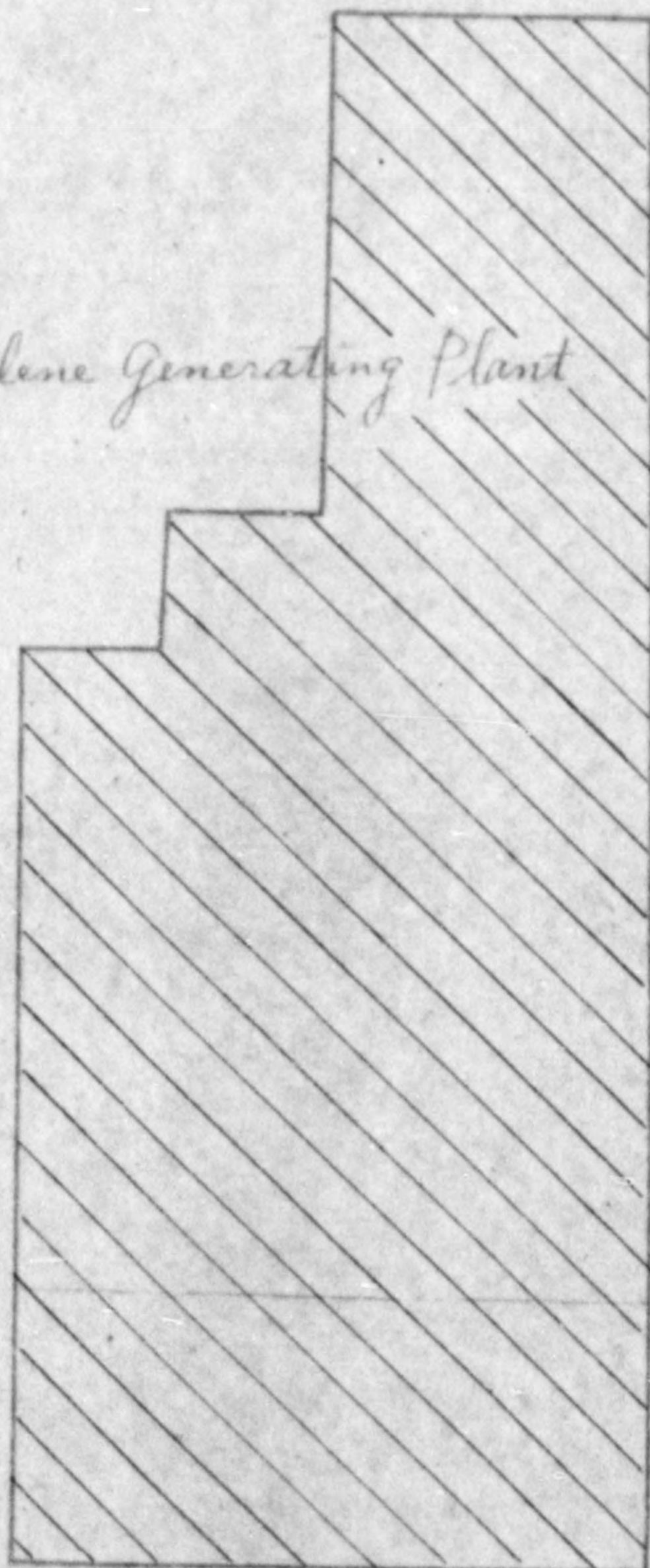


- 賠償 (Reparation Equipment)
- △ 外部 (External Equipment)
- ⊗ 移去 (Equipment removed)
- ▨ 除外建物 (Building to be exempted)

No. 2

Arranger

Acetylene Generating Plant

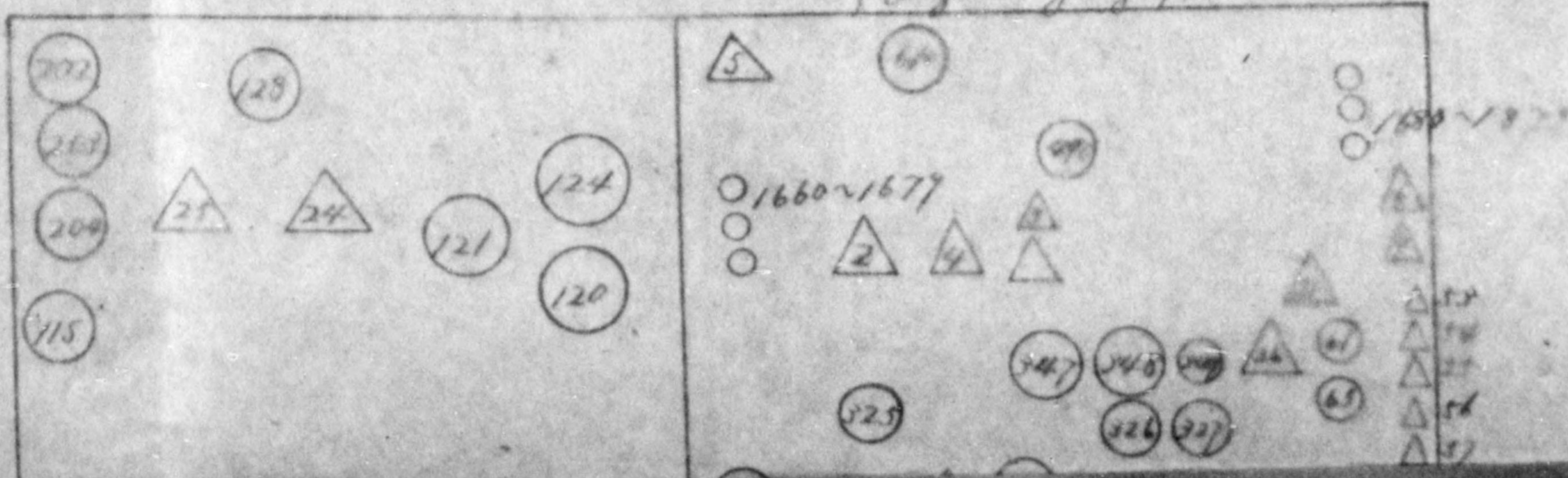




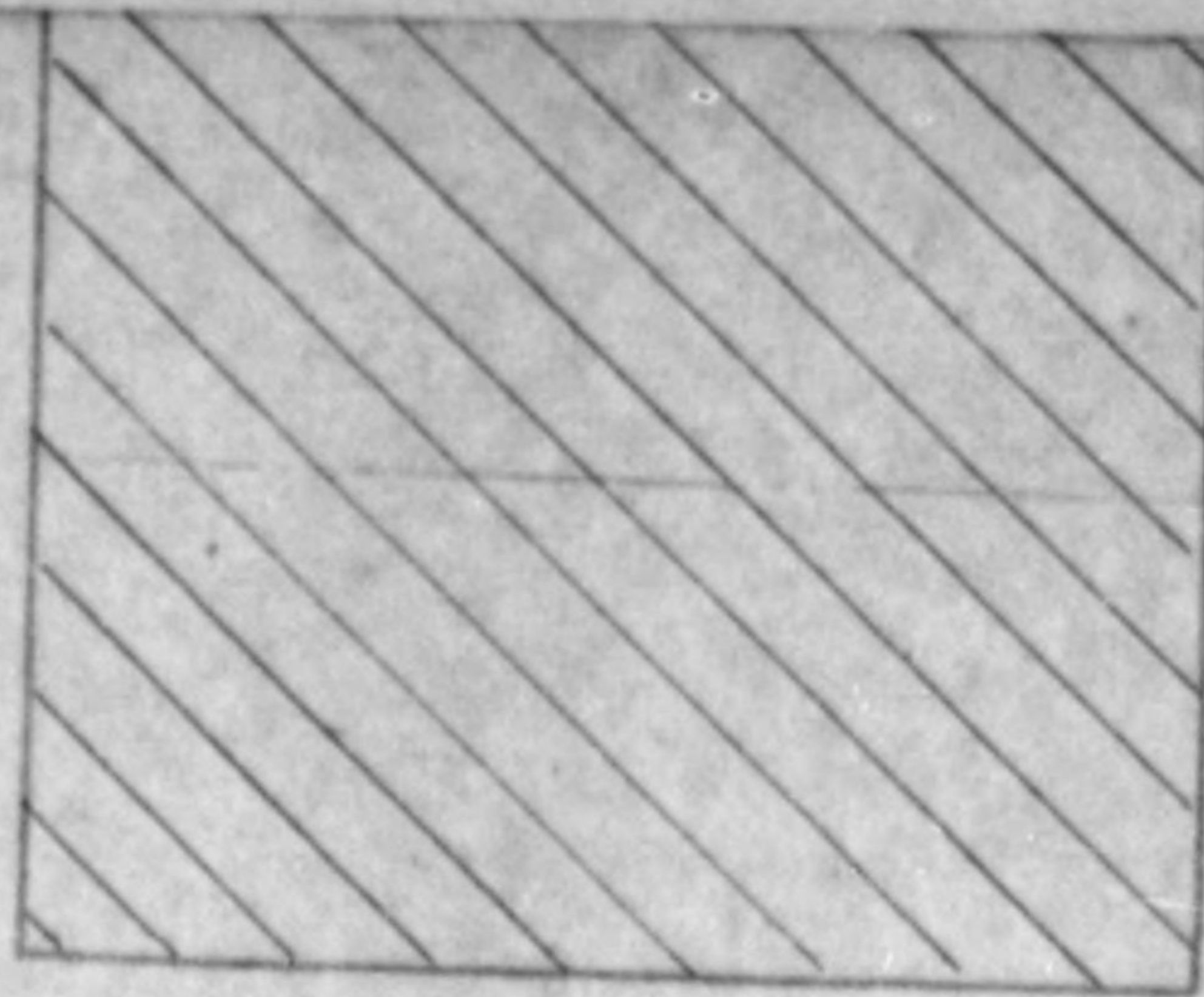
No. 2

Arrangement Diagram of Equipment

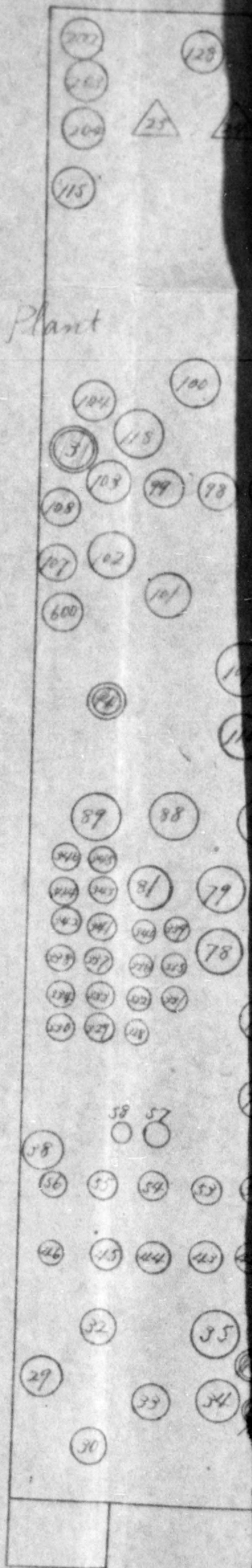
Polymerizing Plant





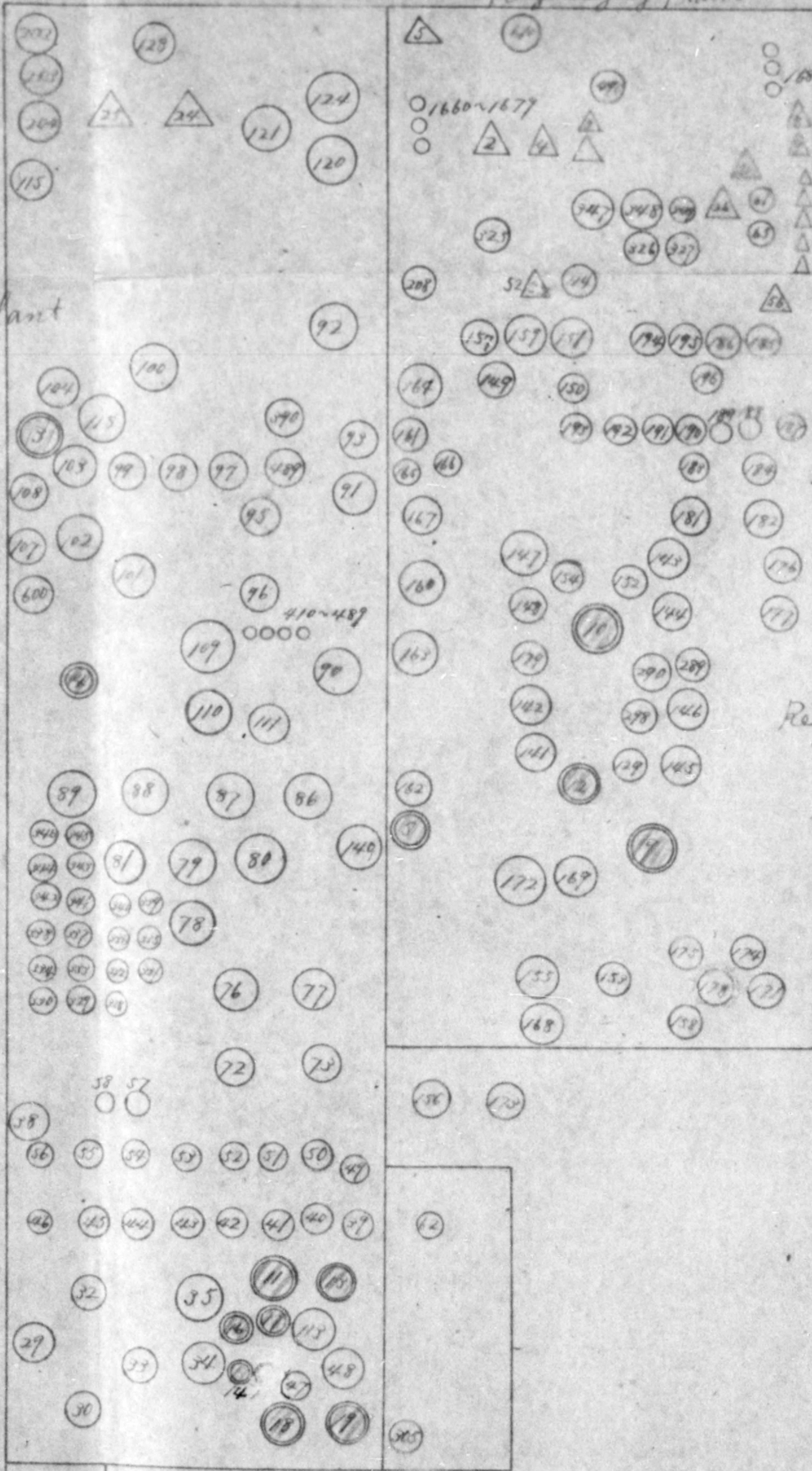


*Synthesizing Plant*





Polymerizing Plant



Refrigerating Plant

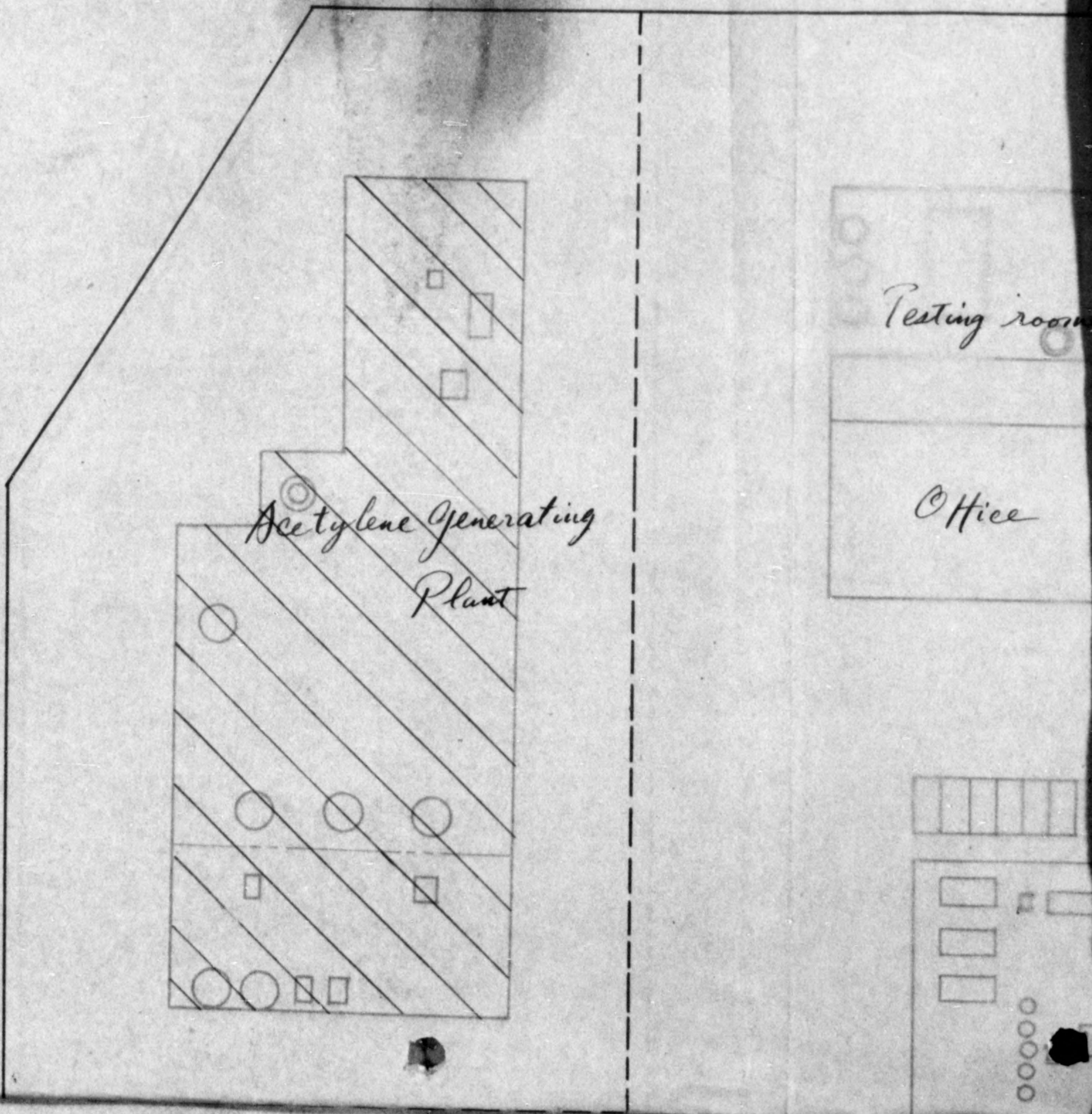
ing Plant



Amex No. 3

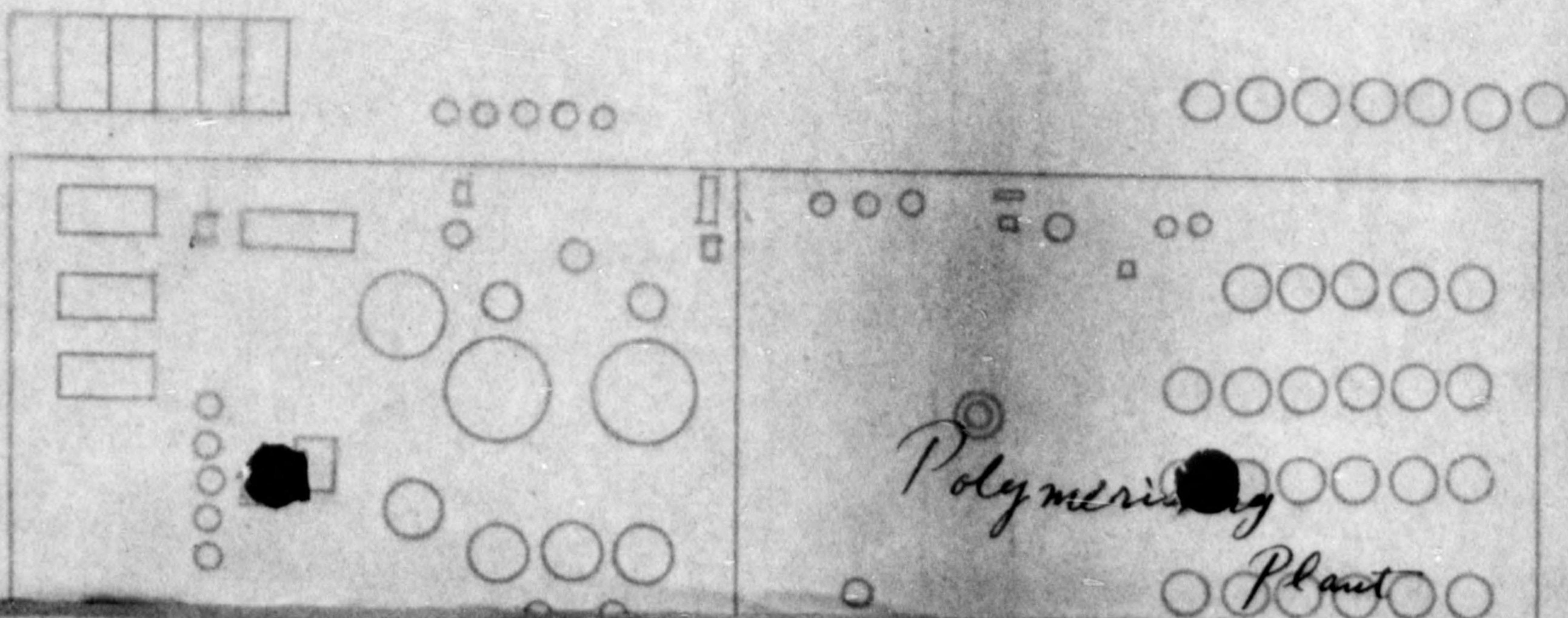
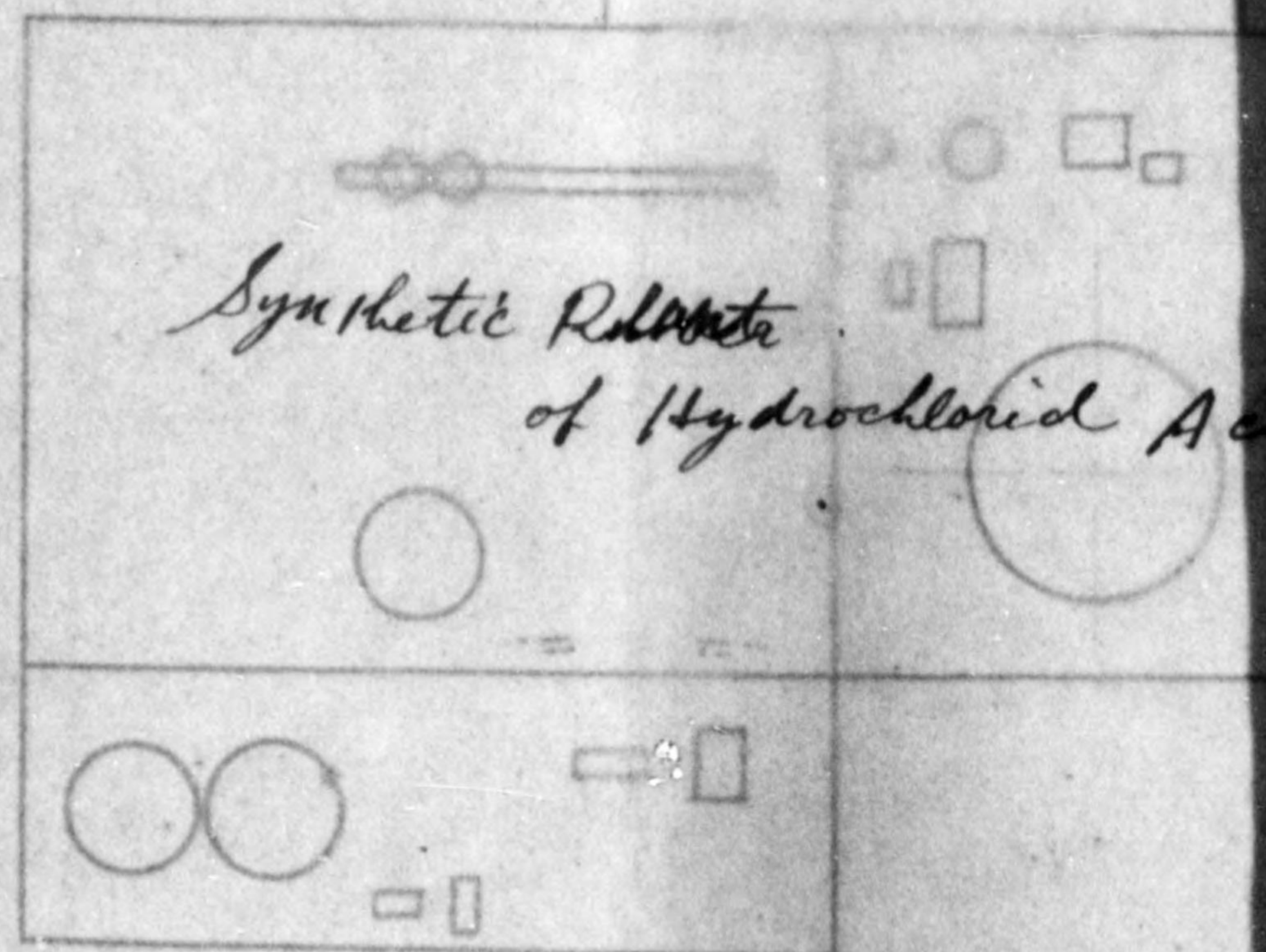
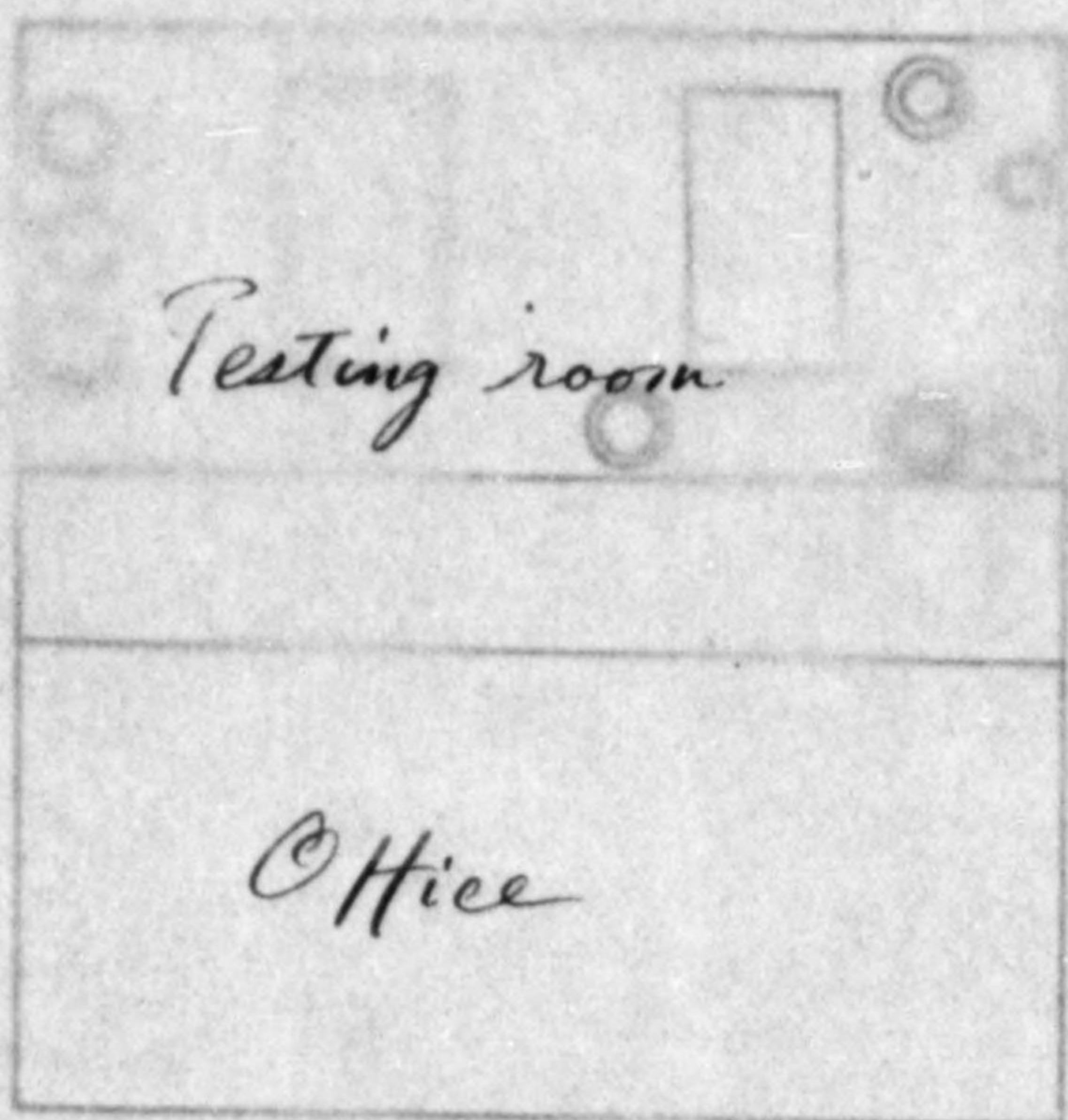
Synthetic Rubber Plant

- Guard fence
- Guard fence to be made after exemption
- ////// Building to be exempted

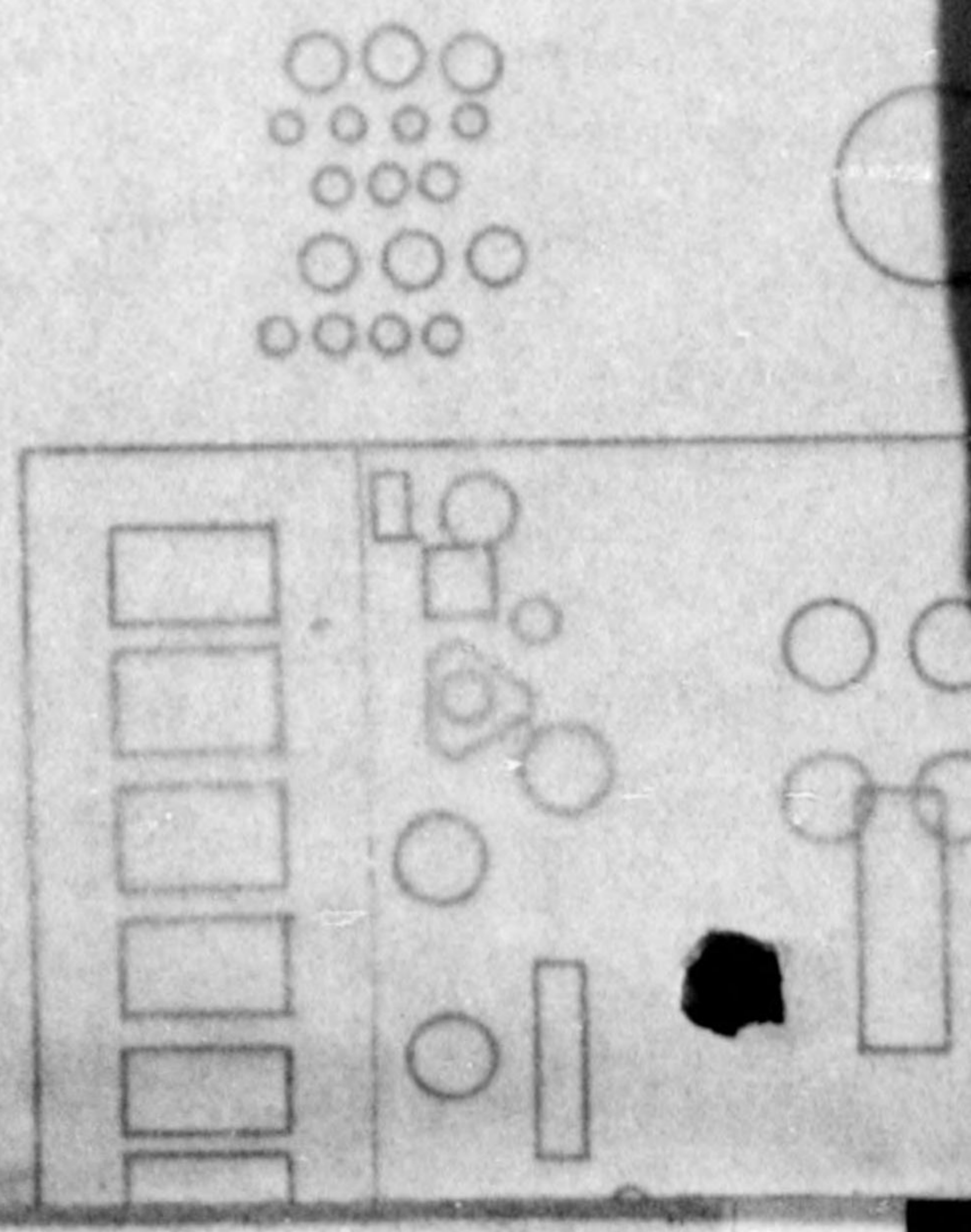
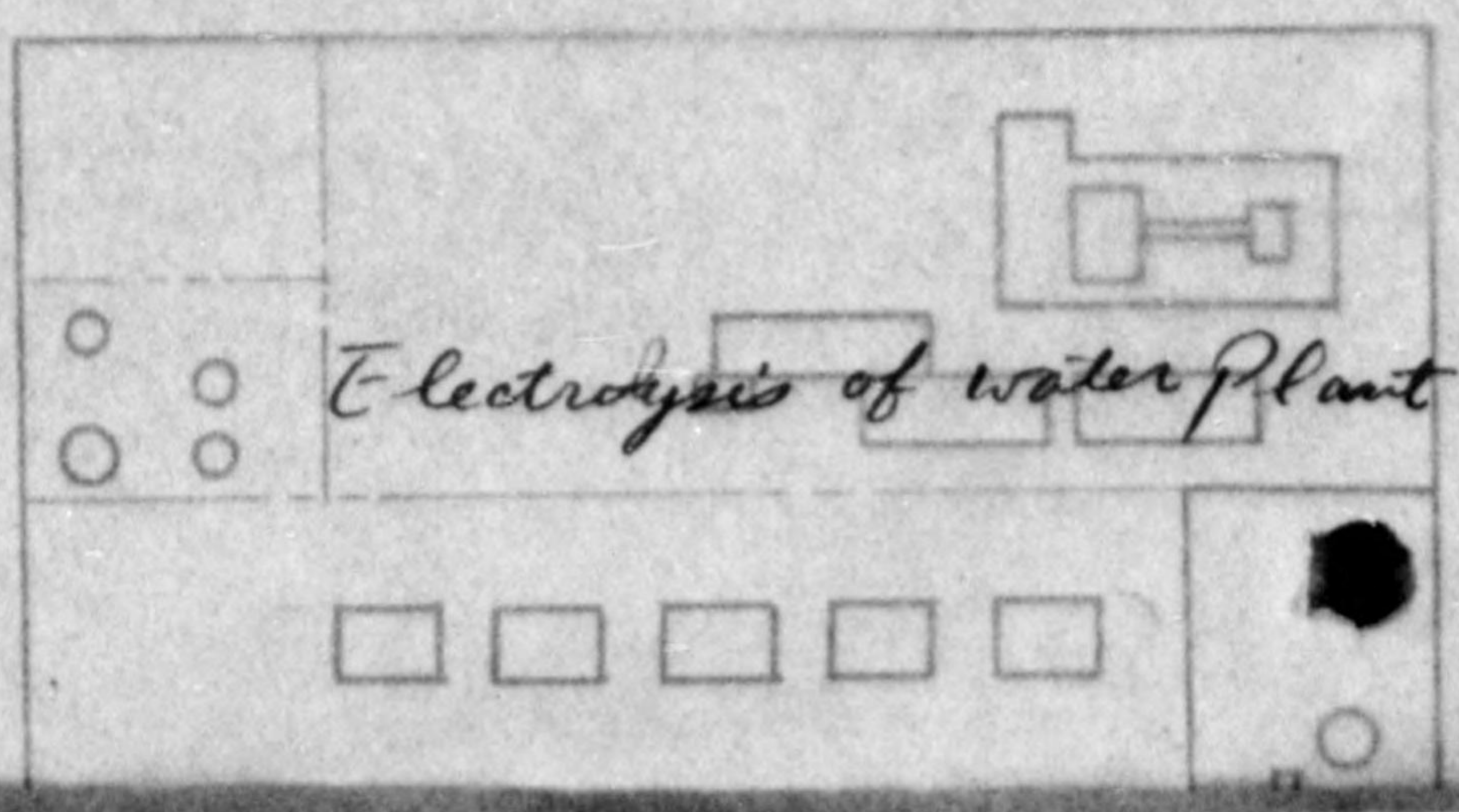
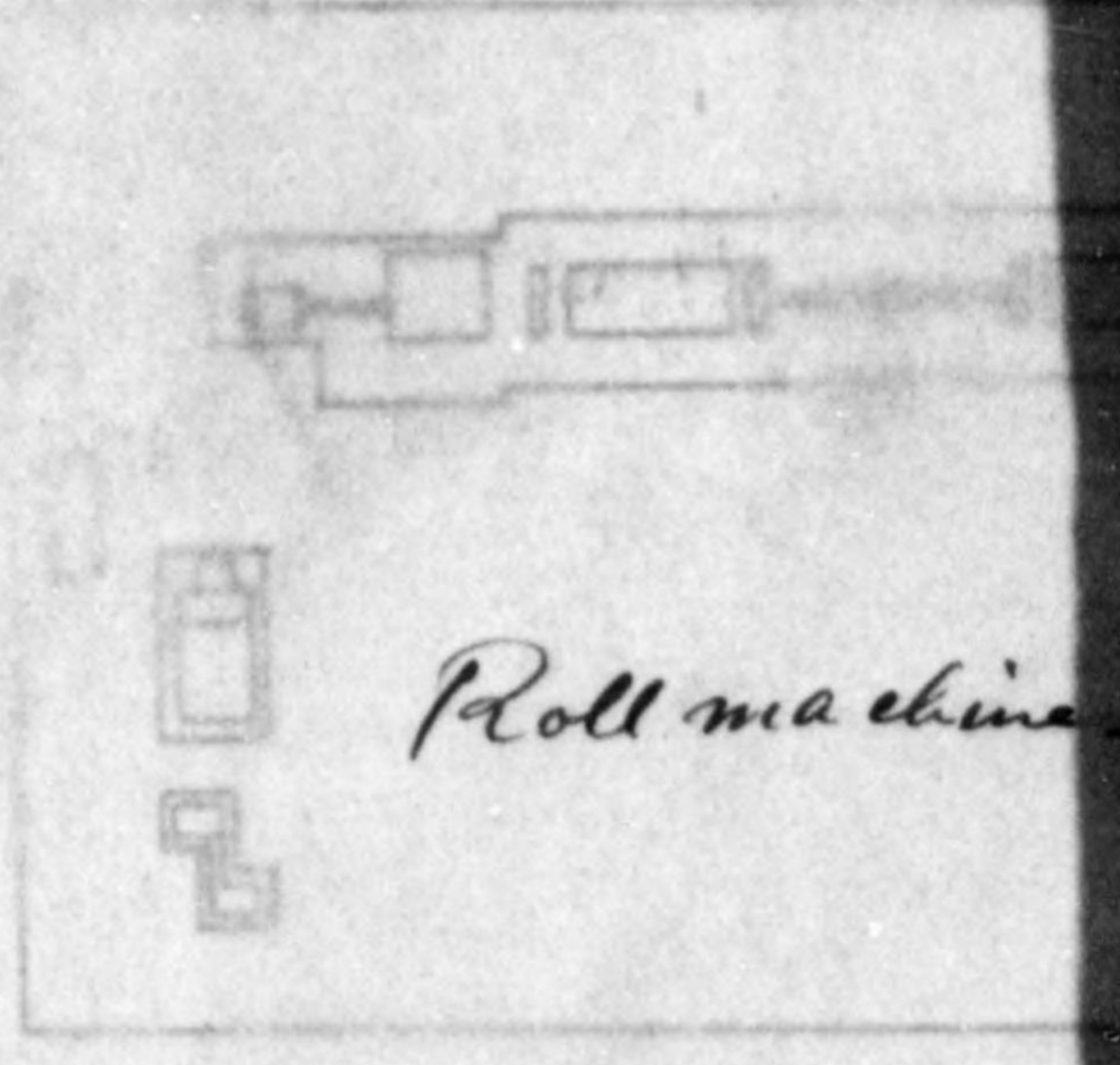
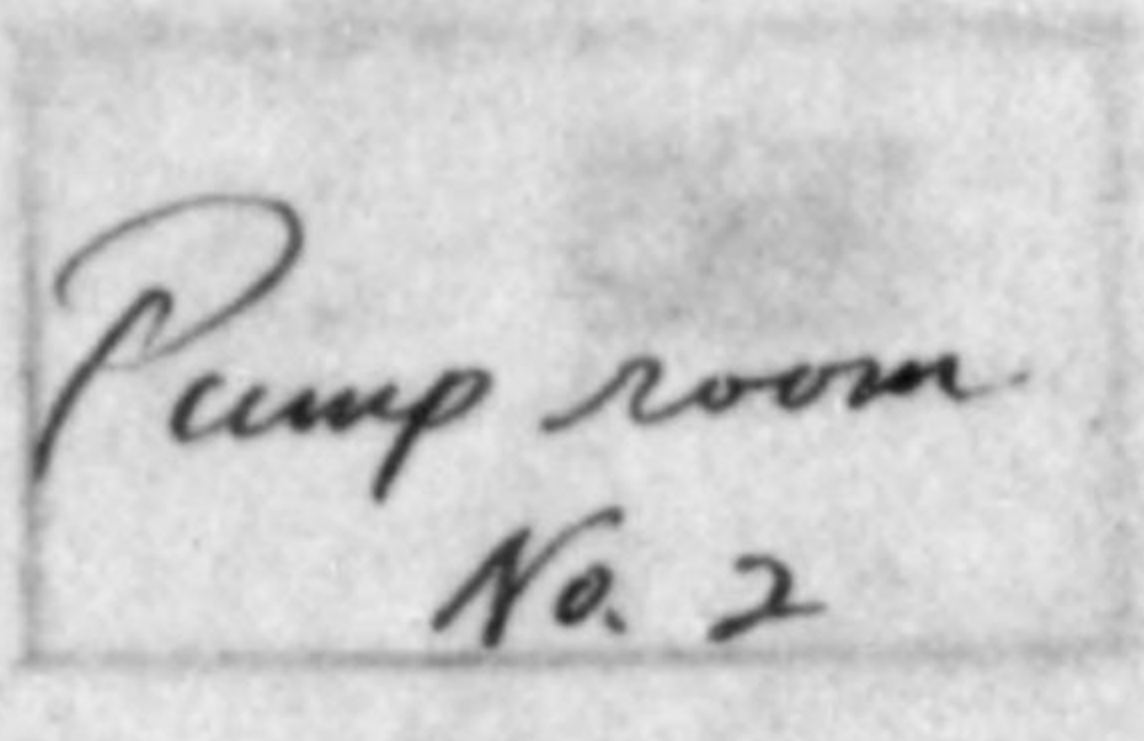
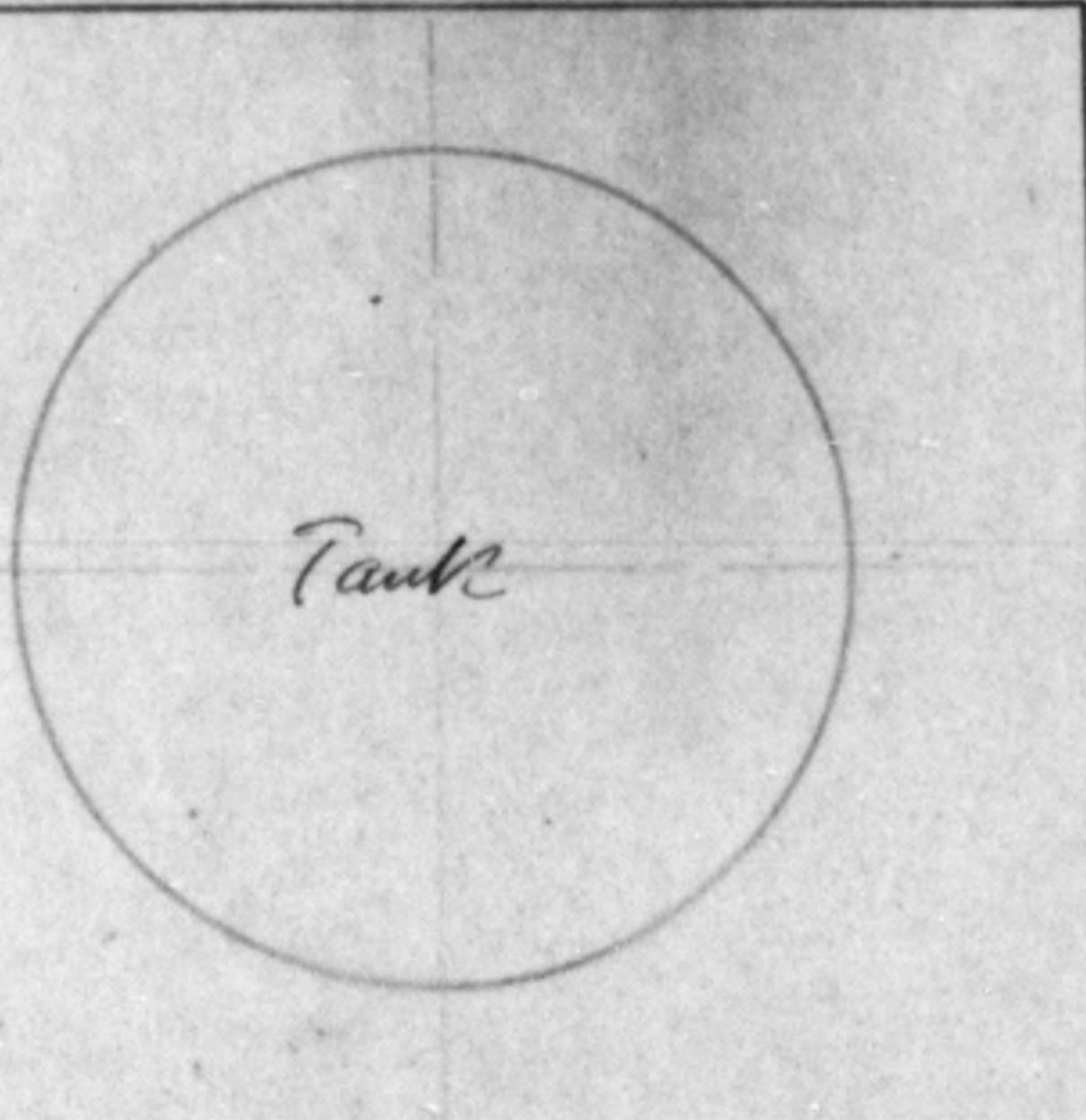




Synthetic Rubber Plant

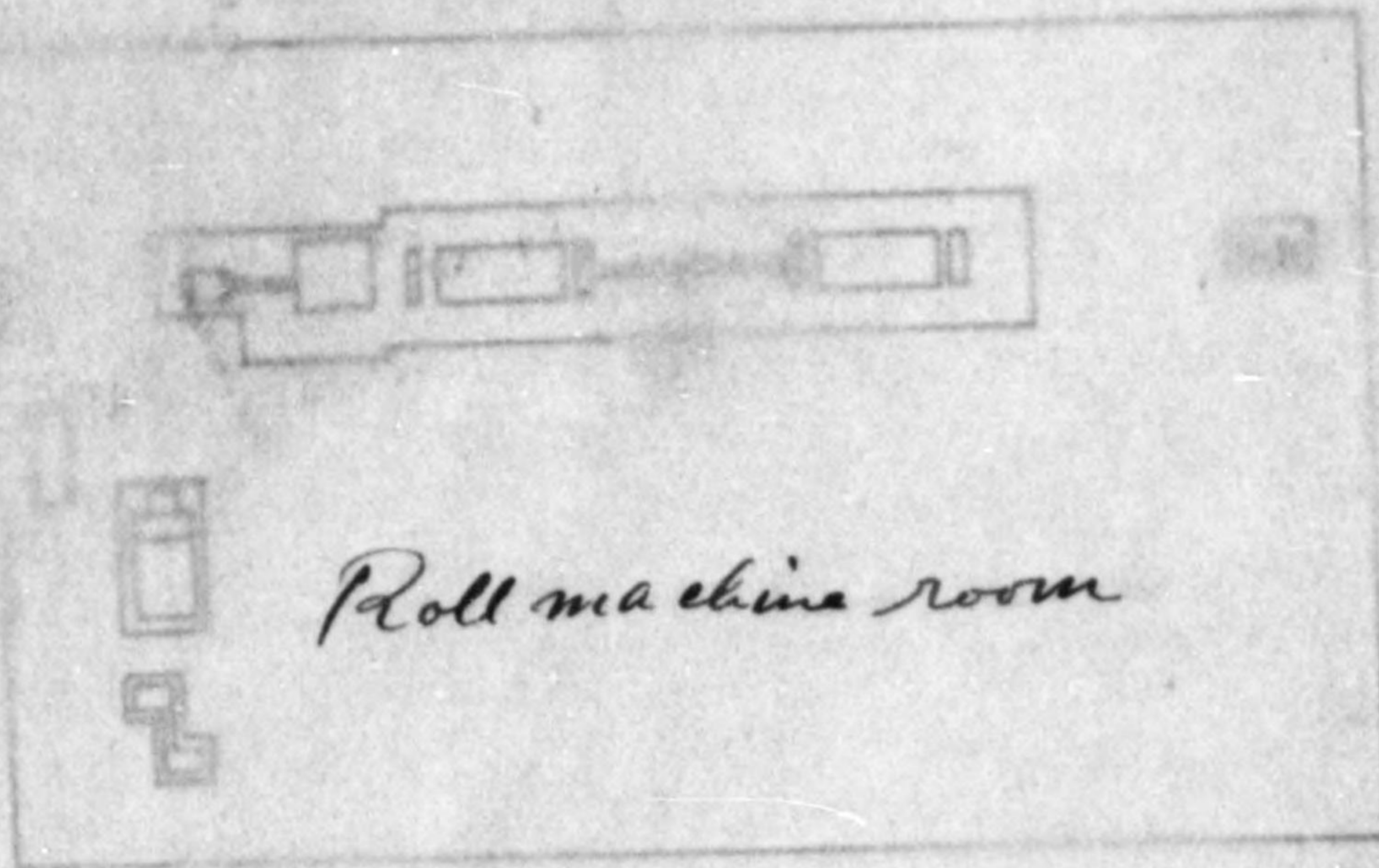




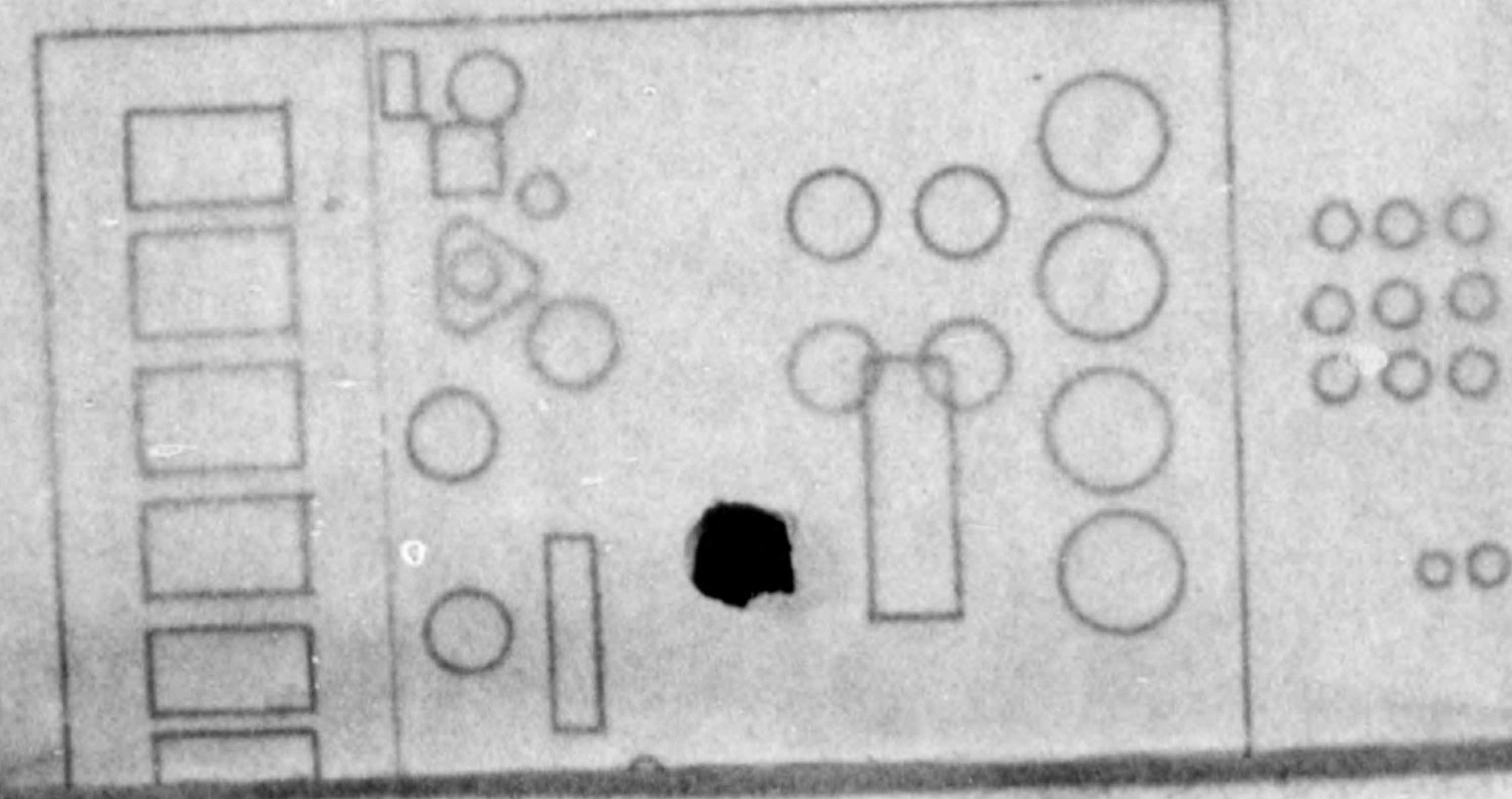




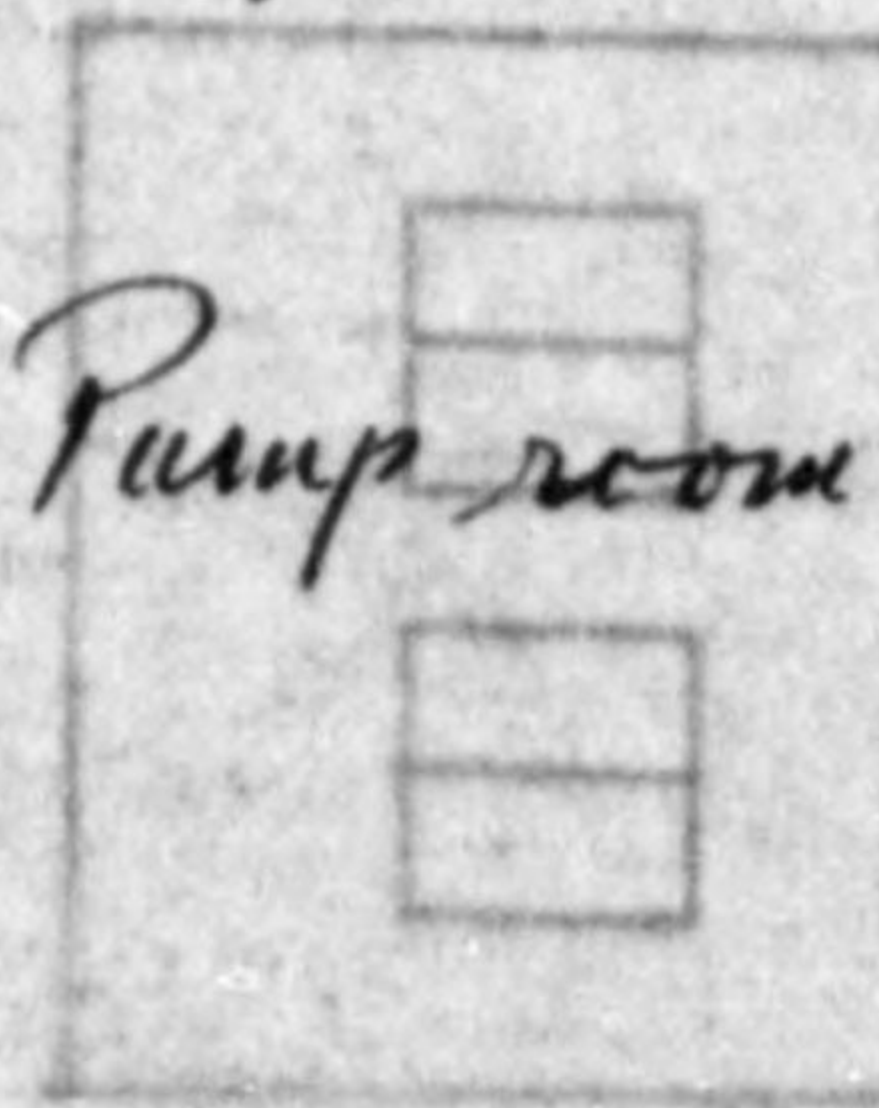
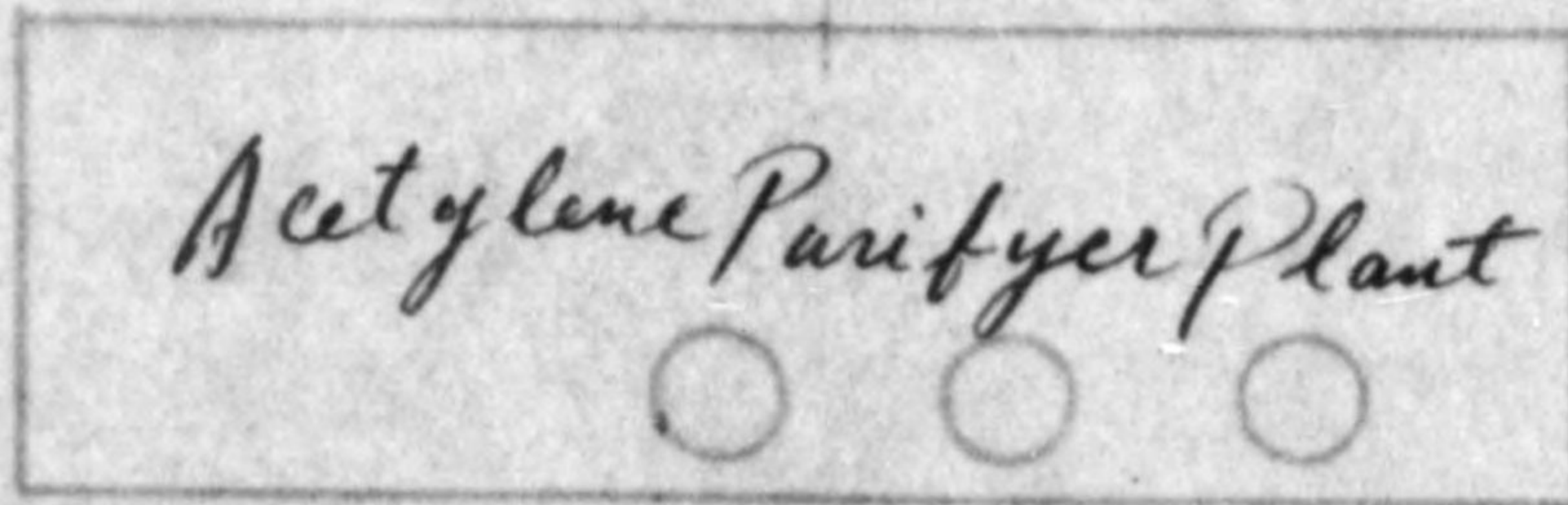
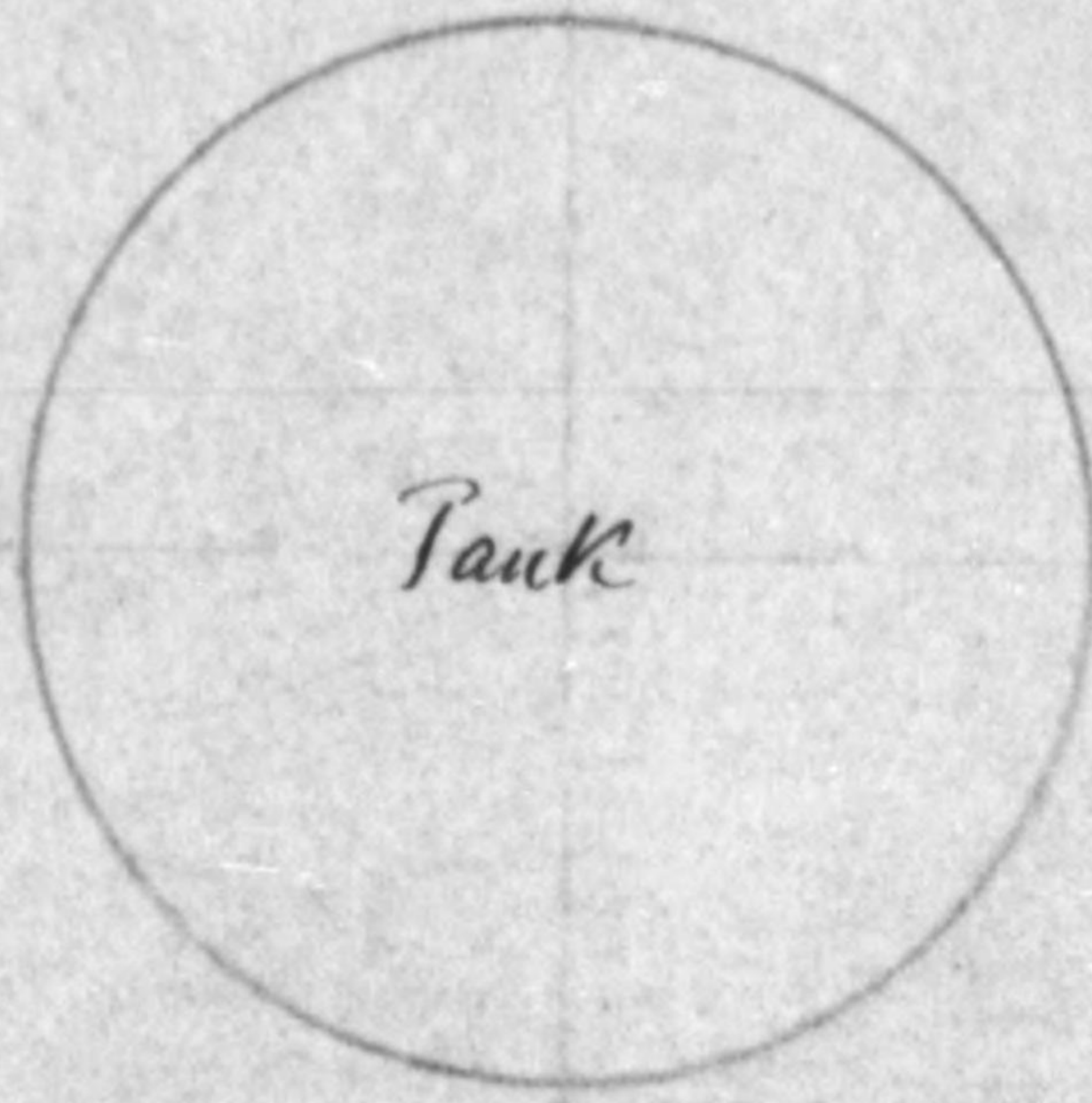
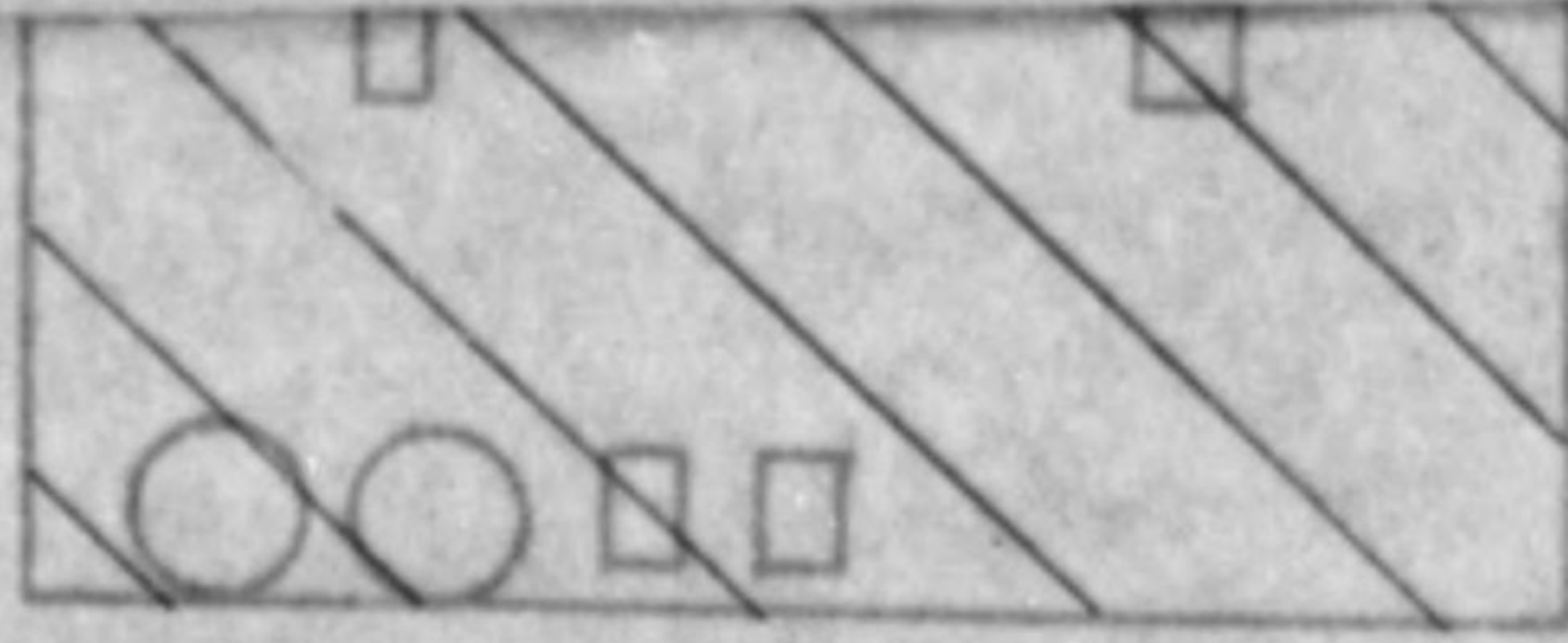
Pump room  
No. 2



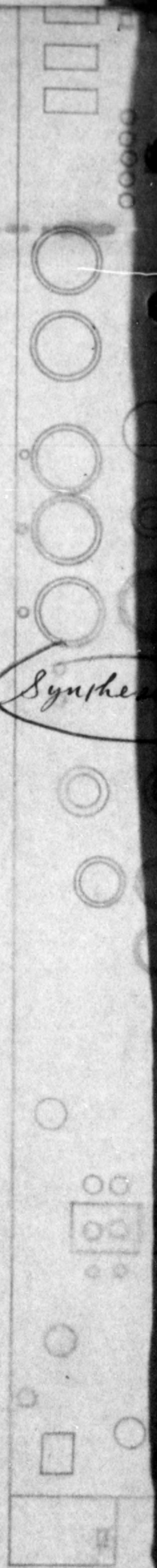
Water plant



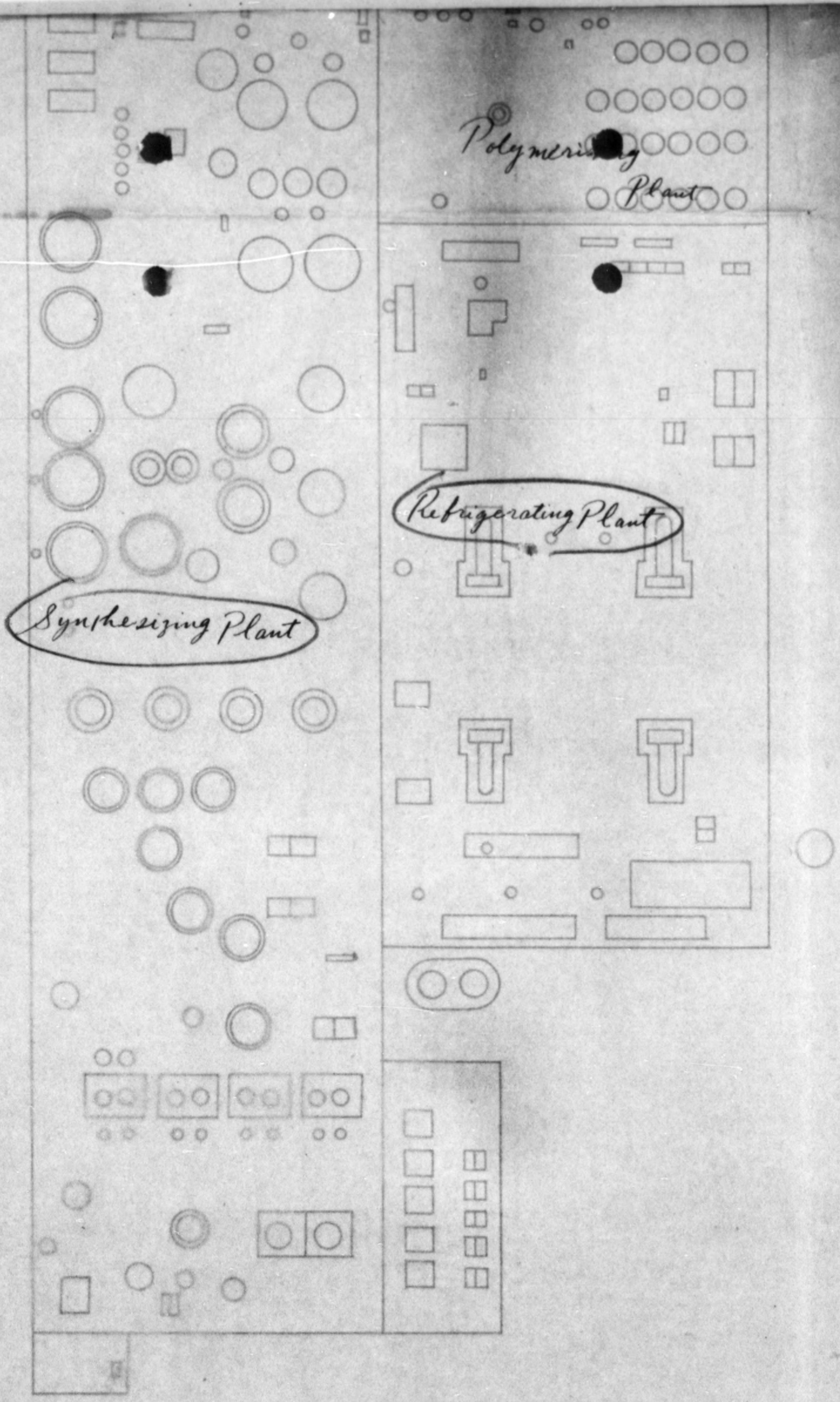




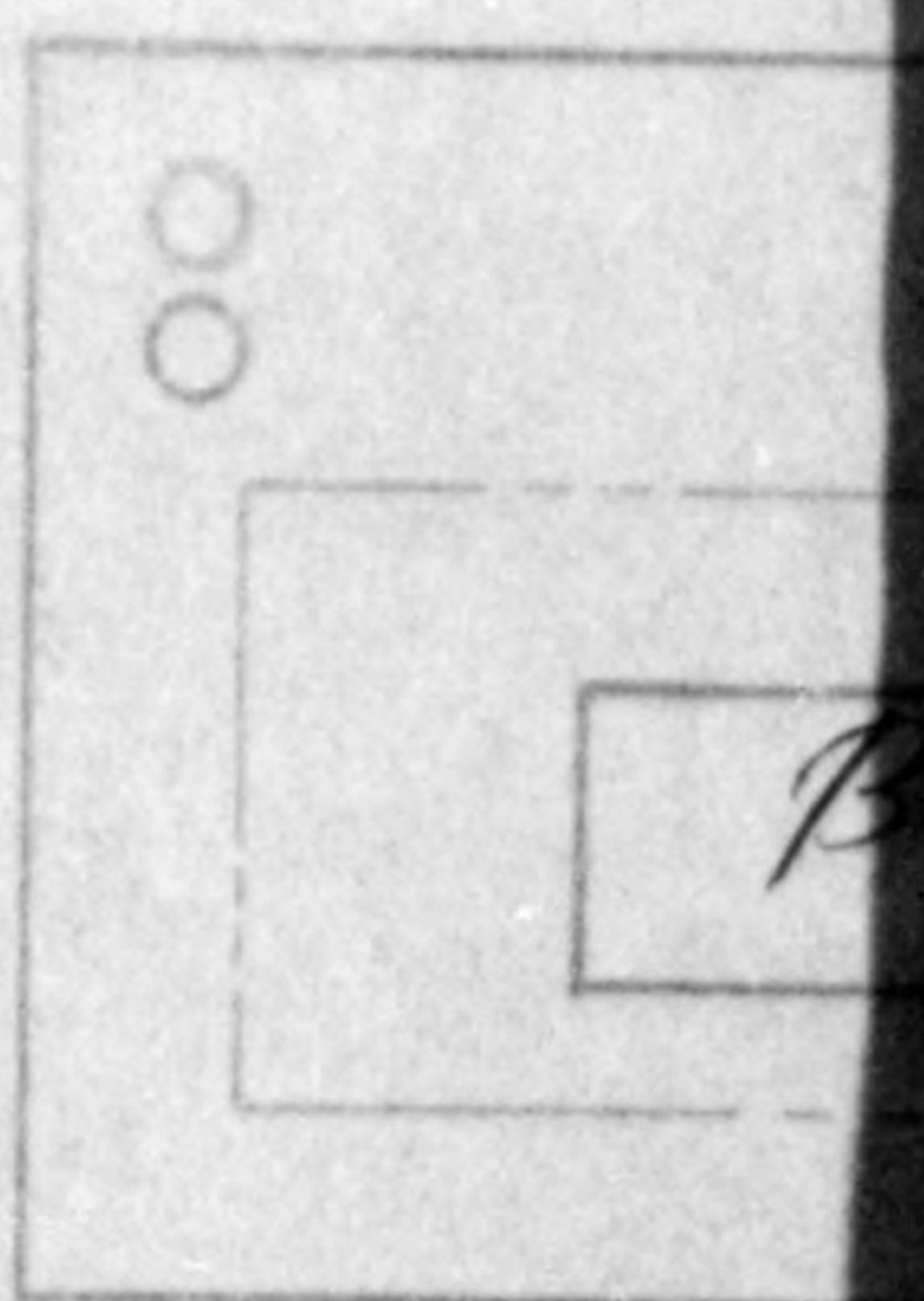
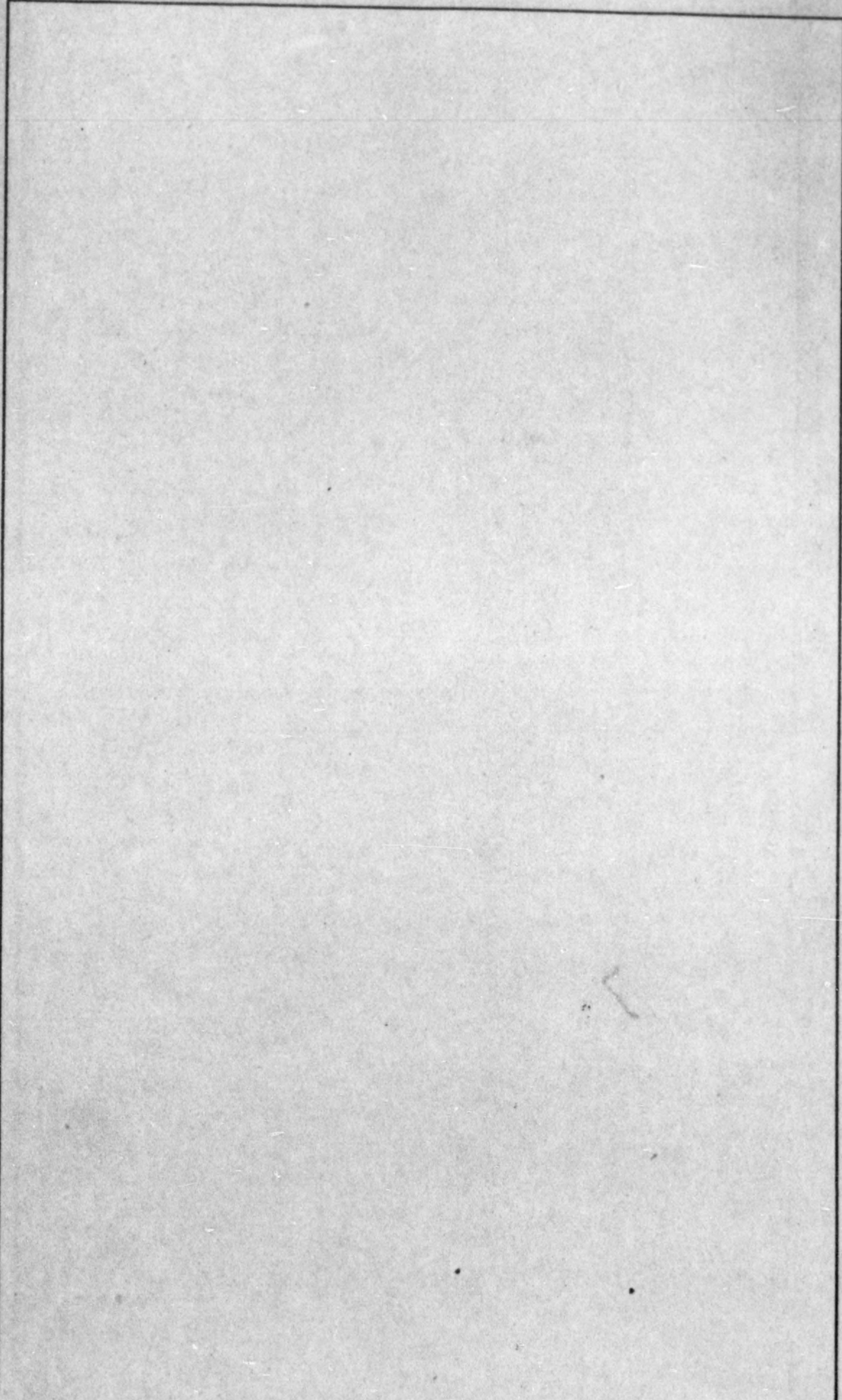
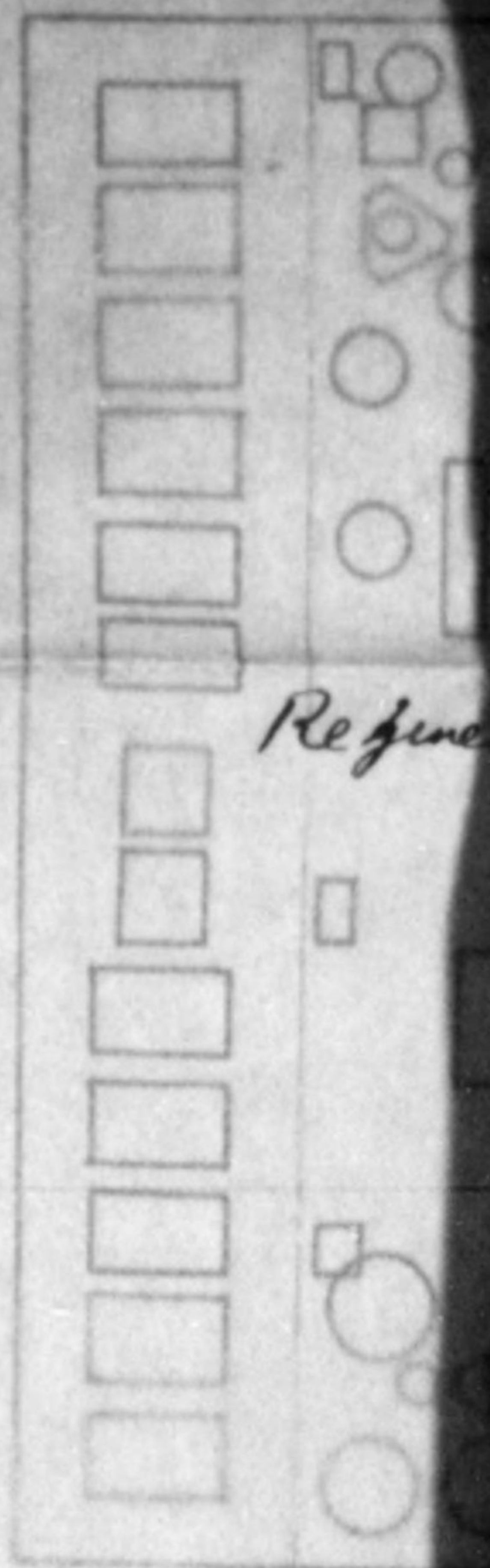
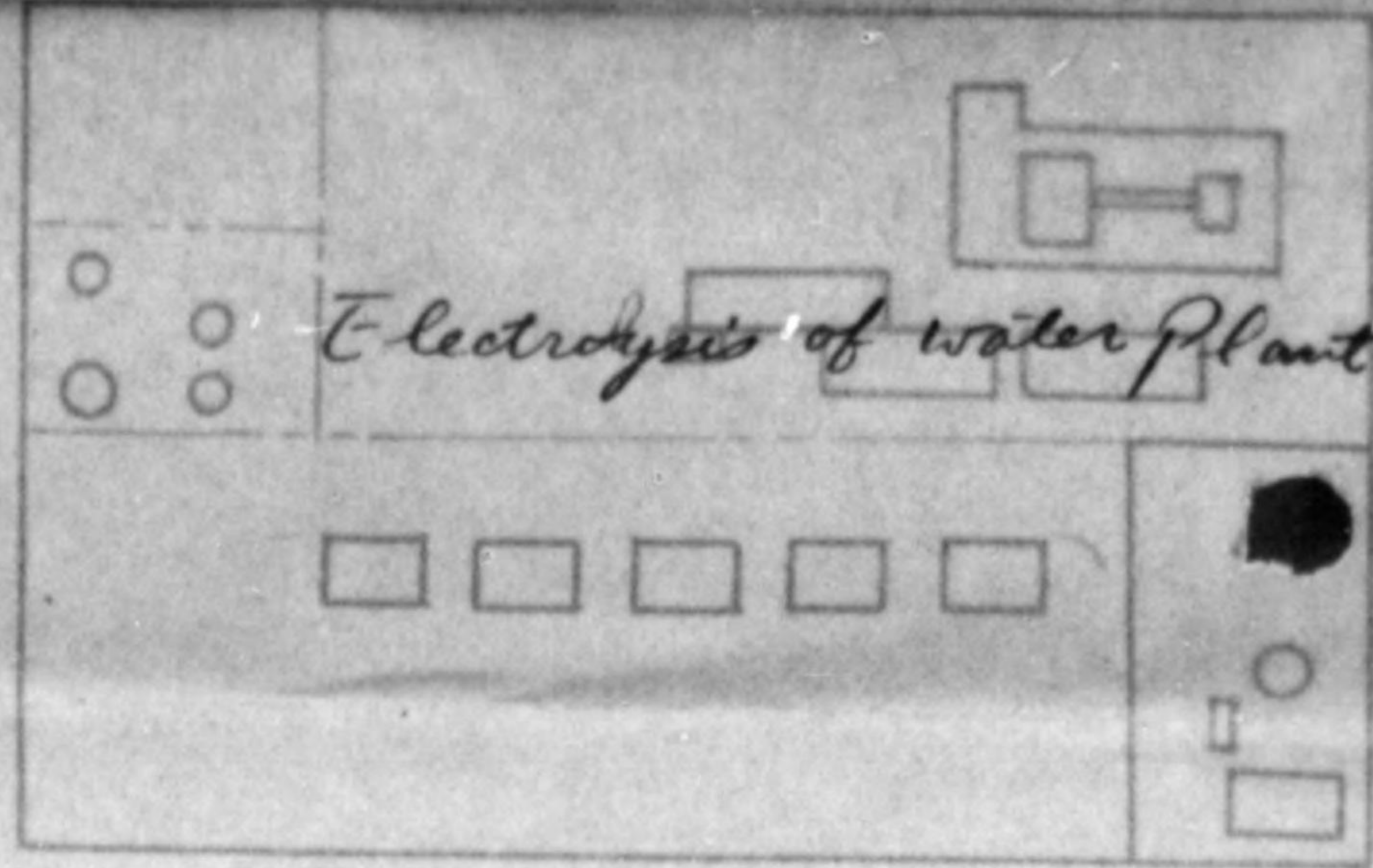
Synthes



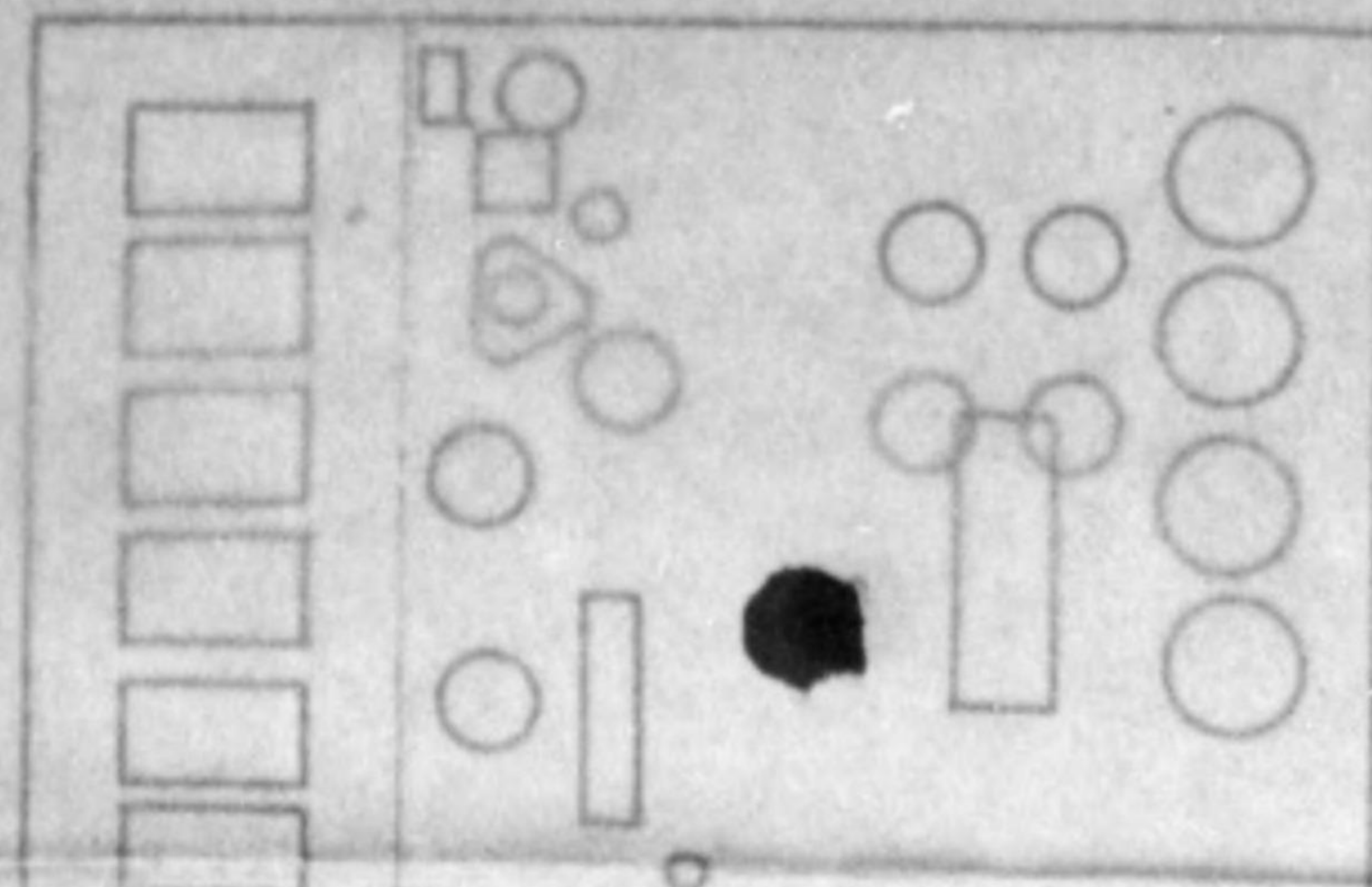




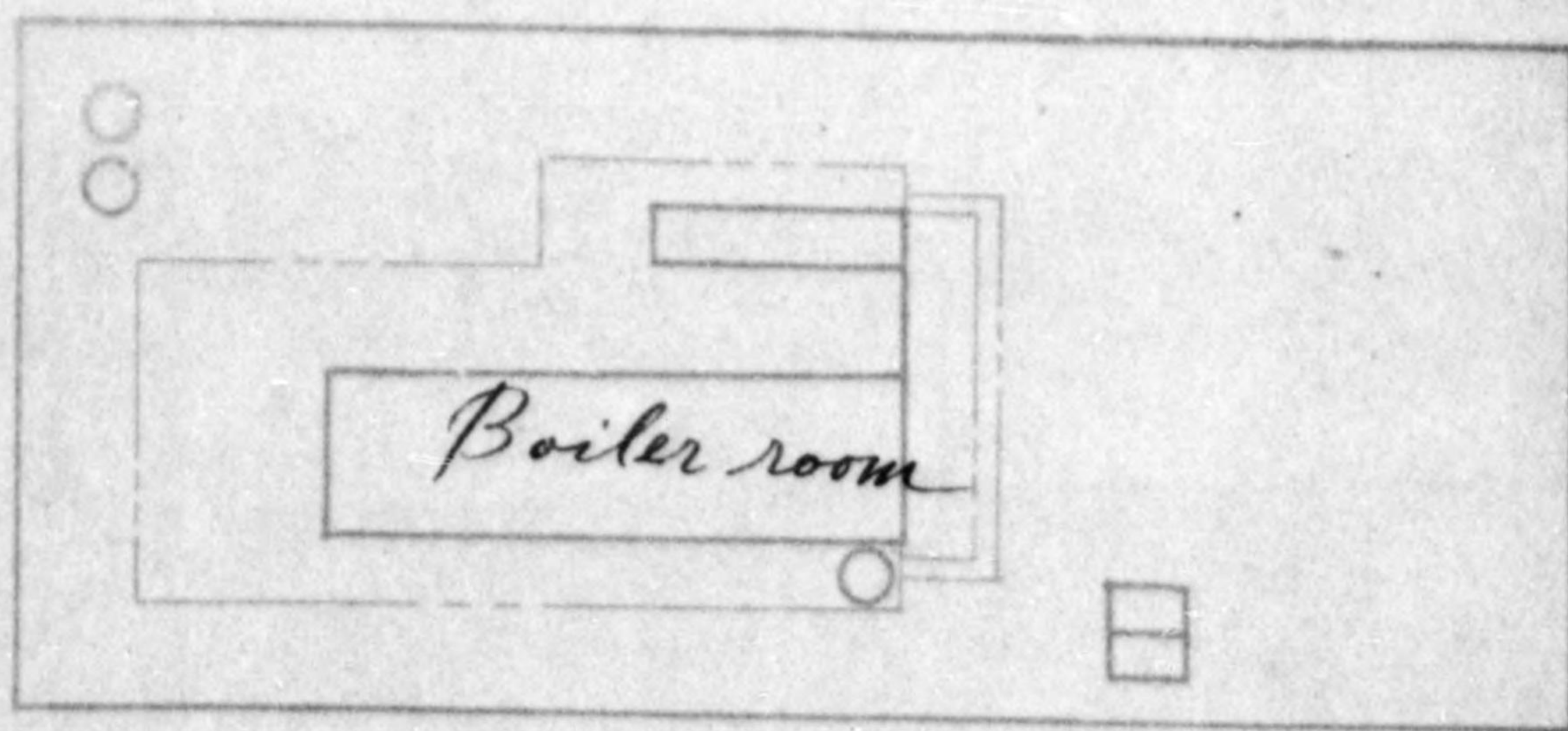
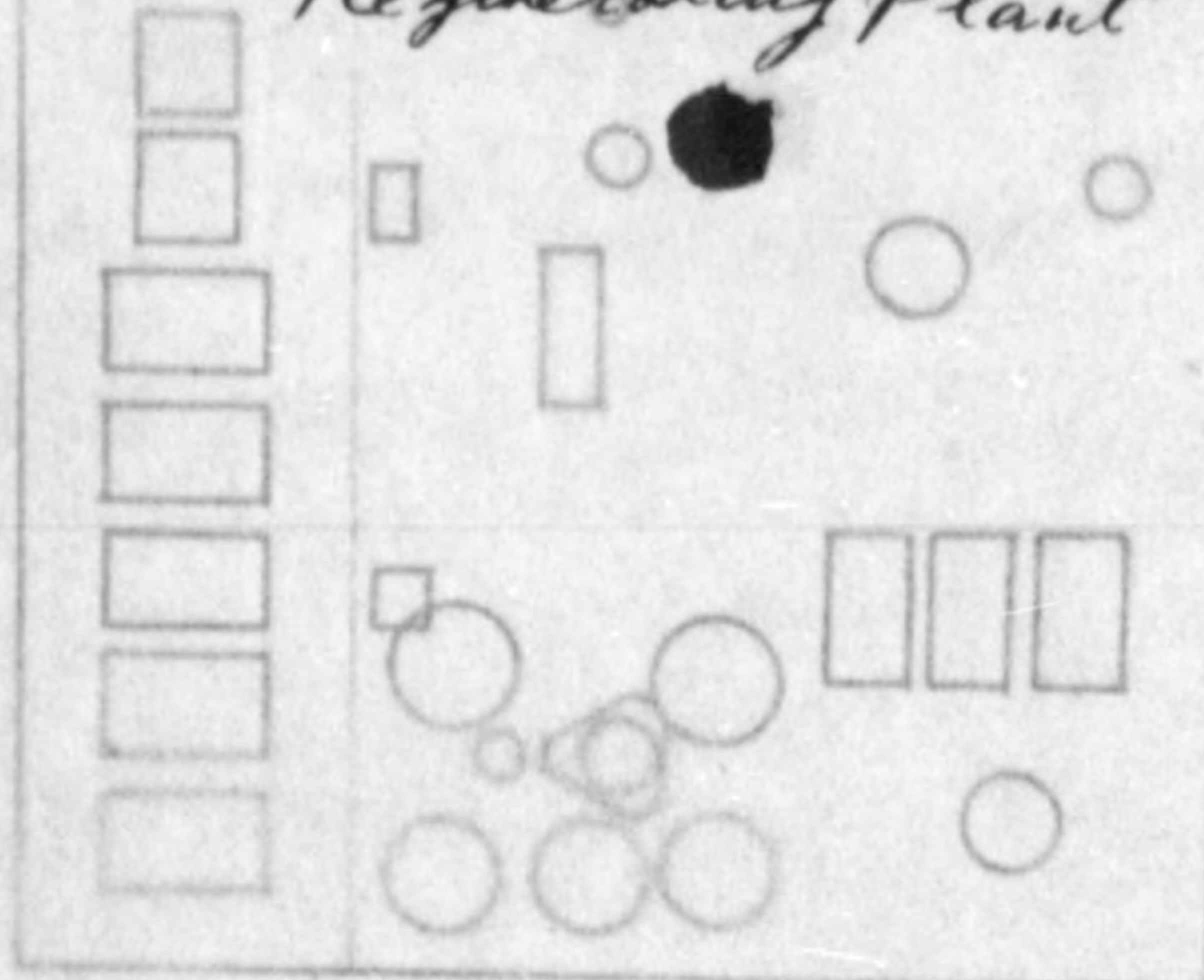








*Regenerating Plant*



*Boiler room*



To: Captain Eugene Moss,

15th Mar., 1947

Toyama Military Government Team.

From: Uozu Factory, The Nippon Carbide Ind. Co., Ltd.

No. 751 Motoshin, Michishita, Shimonikawa, Toyama Pref.

Re: Forwarding of a Copy of the Report,

concerning the Synthetic Rubber Plants

Dear Sir,

I beg to inform your office to receive a copy of the report enclosed herewith, concerning the Synthetic Rubber Plants of our Factory.

The copy is made quite the same form designated by Mr. Maurand, G.H.Q. in the instruction, dated Feb. 18, this year, requiring to report as to the enquiries. We already sent in the report to Mr. Maurand, G.H.Q. and a copy of it to the Dept. of Commerce and Industry, Japanese Govt., each, in March 10, this month.

We entreat your office to grant your reception, examining each sections of the report.

Yours faithfully,

Keiji Asahina

Superintendent,

Uozu Factory,

The Nippon Carbide Industrial

Co., Ltd.



COPY

To: General Head Quarters

10th, Mar. 1947

From: The Nippon Carbide Industrial

Co., Ltd. Uozu Works

Subject: Synthetic Rubber Plant Report



Synthetic Rubber Plant Report

## 1. Name of Product.

Chloroprene Rubber

## 2. Name of Process.

Raw material-Acetylene

## 3. Name and Address of Plant.

The Nippon Carbide Industrial Co., Ltd. Uozu Works,  
Synthetic Rubber Plant.

751, Motoshin Nichishita-mura, Shimonikawa-gun,  
Toyama Prefecture.

## 4. Designed Capacity.

Product	Kilograms per Month
Chloroprene Rubber	30,000

## 5. Peak Production.

Month September Year 19th year of showa ( 1944 )

Product	Kilograms Produced
Chloroprene Rubber	4,043.5

## 6. Requirments per Month at Designed Capacity.

## A. Raw Materials.

Material	Description	Kilograms / month
Calcium Carbide	$\text{CaC}_2$ Which generates $200\text{m}^3$ acetylene per ton and self-produced.	810,000
Chlorine	$\text{Cl}_2$ Which is liquid and purchased from others.	37,800
Hydrogen	$\text{H}_2$ Which self-produced, and its purity is 99.8 %.	1,200



B. Fuel.

Kind	Metric Tons	Heat Value (Kcal / Kg)	Purpose for which used
Bituminous Coal	45	6,500	Pre-heating for acetylene gas, heating for reaction vessel and distillating for monovinyl-acetylene and chloroprene, etc.

C. Electric Energy.

KWH	463,680
KVA	920
Voltage	high V. 3,300 low V. 210, 105
Phases	3
Cycles	60

D. Steam.

	Metric cubic	Pressure
Total	300 <sup>m<sup>3</sup></sup> / hour	4Kg / cm <sup>2</sup>

E. Labour.

Number of workers	4,550
Man-hours worked	275

F. Cooling Water.

307,204 Kiloliters at 15°C

G. Plant Area and Volume.

	m <sup>2</sup>	m <sup>3</sup>
Buildings	3,510.	25,764.02
Unenclosed Equipment	147.120	

7. Products and By-Products per Month at Designed Capacity.

Material	Description	Kilograms
Chloroprene Rubber	hardness: 70-76, elasticity: 35-49 tensile strength (Kg/mm <sup>2</sup> ): 1.4-1.7 percentage of elongation: 375-654	30,000
(By-Product) Divinyl acetylene	b.p. : 83.5 sp.gr. : 0.78	19,800
Dichloro butene	b.p. : 75-76 / 40mm	21,500



8 A. Process Equipment



Item	Name	Type	Manufacturer's Name	Size and Capacity (single unit)	No. of units	Year built	Condition
1	bucket conveyer	self taught type	The Hippon Carbide Industrial Co., Ltd.	3x9 length 3,950	1	1942	usable idle
2	Roll Crusher	double flower type	The Sato machine manufactory	57/R 125mm x 20mm	1	1942	Usable idle
3	Trolley block	triple geared type	The Miura Machine store	R.H.T	1	1939	usable idle
4	Acetylene generator	self taught type	The Sato Machine Industrial Co., Ltd.	120-125 m <sup>3</sup> /H	1	1942	Minor Repair idle
5	Acetylene generator	self taught type	The Sato Machine Industrial Co., Ltd.	120-125m <sup>3</sup> /H	1	1942	Minor Repair idle
6	Acetylene holder	wet type	The Toyo carry air Co., Ltd.	20 m <sup>3</sup>	1	1943	usable in use salt
7	Purifier	vertical cylinder type	The Toyo carry air Co., Ltd.	200m <sup>3</sup> /H	1	1943	usable idle
8	"	"	"	200m <sup>3</sup> /H	1	1943	" "
9	"	"	"	2,000m <sup>3</sup> /H	1	1943	" "
10	safty by water-seale	self taught type	The Hippon carbide Industrial Co., Ltd.		1	1943	" "



No. 2	Item	Name	Type	Manufacturer's Name	Size and Capacity (single shift)	No. of Units	Year Built	Condition
11	Gas meter		Record indicate type round type	The Hirosewa meter manufactory			1943	Minor repair idle
12	Acetylene blower		late type	The Asakura manufactory	1000 m <sup>3</sup> /H	1	1943	Minor repair idle
13	Accumulator		Vertical cylinder type	The Shimizu Co., Ltd.		1	1943	Usable idle
14	Pre-heater for Acetylene		Vertical cylinder type	The Sato industrial Co., Ltd.		1	1943	Usable idle
15	Flow meter			The Hirosewa meter manufactory		1	1943	Minor repair idle
16	Orifice flow meter		Record indicate type round type	The Okushin electric machine Co., Ltd.		1	1943	Minor repair idle
17	"		"	"		1	1943	Minor repair idle
18	"		"	"		1	1943	Minor repair idle
19	"		"	"		1	1943	Minor repair idle
20	"		"	"		1	1943	Minor repair idle
21	"		"	"		1	1943	Minor repair idle
22	"		"	"		1	1943	Minor repair idle
23	"		"	"		1	1943	Minor repair idle

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013



No. 3	Item	Name	Type	Manufacturer's Name	Size and Capacity (single unit)	No. of units	Year Built	Condition
	24	Reaction vessel No. 1 with water- jacket	Vertical cylinder type	The Toyo carry air Co., Ltd.	843 x 1800	1	1943	usable 100%
	25	"	"	"	"	1	1943	" "
	26	"	"	"	"	1	1943	" "
	27	"	"	"	"	1	1943	" "
	28	"	"	"	"	1	1943	" "
	29	"	"	"	"	1	1943	" "
	30	"	"	"	"	1	1943	" "
	31	"	"	"	"	1	1943	" "
	32	Alkali washing tower	Vertical cylinder type	The Sato factory	"	1	1943	" "
	33	Water cooling condenser No. 1	Refrigerate by water type	The Toyo carry air Co., Ltd.	1024x4550	1	1943	" "
	34	Water cooling condenser No. 2	Refrigerate by water type	The Toyo carry air Co., Ltd.	1024x4550	1	1943	" "
	35	Heat exchanger No. 2	Vertical multitube type	"	1072x1000	1	1943	" "
	36	Brine washing tower	Net type	The Sato factory	1200x1000	1	1943	" "
	37	Brine cooling condenser No. 4	Brine type	The Toyo carry air Co., Ltd.	1672x4600	1	1943	" "



Item	Name	Type	Manufacturer's Name	Size and Capacity (Single Unit)	No. of Unit	Year Built	Condition
38	Brine cooling condenser No. 4	Brine type	The Toyo Carry air Co., Ltd.	1672x4000	1	1943	Usable idle
39	Dryer for acetylene by solid calcium chloride	Dry type	The Nippon fuel chemical machine Co., Ltd.		1		" "
40	"	"	"		1		" "
41	Safety ty water seal	Vertical cylinder	The Nippon Carbide Industrial Co., Ltd.		1	1943	" "
42	Ammonia cooling condenser No. 5	Ammonia type	The Toyo Carry air Co., Ltd.	1112x4150	1	1943	" "
43	"	"	"		1		" "
44	"	"	"		1		" "
45	Receiver Earthenware pot	Made by earthenware	"		1	1943	" "
46	Safety ty water seal	Vertical cylinder	The Nippon Carbide Industrial Co., Ltd.		1	1943	" "
47	Accumulator	Vertical cylinder type	The Shimazu Co., Ltd.		1	1943	" "
48	Receiver for crude monovinyl acetylene	Vertical multi tube type	The Toyo Carry air Co., Ltd.	1500x1820	1		" "
49	Vaporator for	Made by earthenware	The Toyo Carry air Co., Ltd.	1300x1700	1	1943	" "

DECLASSIFIED E.O. 12065 SECTION 3-402/NNDG NO. 775013



Item	Name	Type	Manufacturer's name	Size and Capacity (single unit)	No. of units	Year built	Condition
50	Evaporator for M.V.A.	Made by earthenware	The Toyo carry air Co., Ltd.	1200x1700	1	1943	usable idle
51	Rectifier for M.V.A.	Vertical multi tube type	"	224x2550	1	1943	" "
52	Dryer for pure M.V.A.	Vertical cylinder type CaSO <sub>4</sub> plug	The Nippon fact chemi- cal machine Co., Ltd.		1	1943	" "
53	M.V.A. condenser by brine cooling	Brine type	The Toyo carry air Co., Ltd.	650x2420	1	1943	" "
54	Receiver for pure M.V.A.	Double tube type	"	1200x1800	1	1943	" "
55	"	"	"		1	1943	" "
56	Reaction vessel No. 2	Double can type	The Toho chemical Industrial Co., Ltd.	1400x1750	1	1943	Minor Repair made for- in use gimesul- phar
57	"	"	"		1	1943	Completely damaged
58	"	"	"		1	1943	idle
59	Agitator		The Dato science Industrial Co., Ltd.		1	1943	usable idle
60	"		"		1	1943	"
61	"		"		1	1943	usable in use for farmacy- sulphurine



No. 6

Item	Name	Type	Manufacturer's Name	Size and Capacity (single unit)	No. of Units	Year Built	Condition	
62	vaporator for crude C.P.	Vertical multi tube type	The Toyo carry air Co., Ltd.	1100x1200	1	1943	minor repair idle	
63	"	"	"		1	1943	usable in use	for farmacy sulfanilyl guanidine
64	rectifier for C.P.	Vertical cylinder type	"	294 x 3350	1	1943	usable idle	
65	"	"	"		1	1943	minor repair idle	
66	reper for C.P.	Vertical cylinder type with plug	The Higson fuel chemical machine Co., Ltd.		1	1943	minor repair in use	for farmacy- Aceton
67	C.P. Condenser by brine cooling	Brine type	The Toyo carry air Co., Ltd.	450x2420	1	1943	usable idle	
68	"	"	"		1	1943	" "	
69	Receiver for pure C.P.	Double can type	"	1200x1500	1	1943	" in use	for farmacy- sulfanilyl guanidine
70	"	"	"		1	1943	" idle	
71	Receiver for low boiling materials	spiral type	The sate factory		1	1943	" in use	for farmacy- sulfanilyl guanidine
72	"	"	"		1		" "	for farmacy- Carbonic guanidine



No. 7

Item	Name	Type	Manufacturer's Name	Size and Capacity (Single Unit)	No. of Units	Year Built	Condition	
73	Polymerizing Plant	Enamel lining Cylinder type	The Toyo carry air Co., Ltd.	1200x1800	1	1943	Minor Repair	in use Pharmacy-sulfanilyl guanidine
74	"	"	"	"	1	1943	"	"
75-76	"	"	"	"	4	1943	"	Pharmacy-Belphenine
79	"	"	"	"	1	1943	"	Pharmacy-Alcohol
80	"	"	"	"	1	1943	"	Pharmacy-Acetanilid
81-83	"	"	"	"	3	1943	"	Pharmacy-Belphenine
84-89	"	"	"	"	6	1943	Usable	idle
90-95	"	"	"	"	6	1943	Minor Repair	idle
96-235	C.P. Vessels	Box type made by Aluminium	The Toyo carry air Co., Ltd.		140	1943	Usable	in use Pharmacy-sulfanilyl guanidine



No. 8

Item	Name	Type	Manufacturer's Name	Size and Capacity (Single unit)	No. of Units	Year Built	Condition	
236	Evaporator for polymerized S.P.	Box poly floor type	The Toyo carry air Co., Ltd.	1000x1500x1500	1	1943	Minor Repair in use	make for-natural rubber
237	"	"	"	"	1	1943	"	idle
238	"	"	"	"	1	1943	usable	in use pharmacy-S.G.
239	"	"	"	"	1	1943	"	idle
240	"	"	"	"	1	1943	"	"
241	"	"	"	"	1	1943	"	"
242	"	"	The Nippon chemical machine Co., Ltd.	"	1	1943	"	in use For pharmacy-S.G. good
243	"	"	"	"	1	1943	"	in use For pharmacy-Acetanilid
244	"	"	"	"	1	1943	"	idle
245	Mixing roll	Horizontal second floor type	The Aoki roll manufactory	18x50 inch	1	1943	"	in use product for-natural rubber
246	"	"	"	"	1	1943	"	idle



8 E. Auxiliary Equipment



No. 1

Item	Name	Type	Manufacturer's Name	Size and Capacity (single unit)	No. of Year Units Built	Condition
1	Motor 25HP	open type	The Tokyo plant Shibaura Co., Ltd.	25 HP	1 1937	usable idle
2	Winch					usable in use limestone wind up
3	Motor 15 HP	open type	The Hitachi Co., Ltd.	15 HP	1 1939	usable in use limestone wind up
4	Hand-winch	by hand type			1 1939	usable in use work repairing
5	Motor 5 HP	Enclosed type endure explosion type	The Sato Machine Industrial Co., Ltd.	5 HP	1 1939	usable idle
6	Motor 5 HP	Enclosed type endure explosion type	The Sato Machine Industrial Co., Ltd.	5 HP	1 1939	usable idle
7	pump	spiral type	The Shindo pump manufactory		1 1942	minor repair in use salt
8	Motor 2 HP	open type	The Mitsubishi electric machine Co., Ltd.	2 HP	1 1942	usable in use salt
9	pump	spiral type	The Shindo pump manufactory		1 1942	minor repair idle
10	Motor 2 HP	open type	The Mitsubishi electric machine Co., Ltd.	2 HP	1 1942	usable idle
11	Head tank	Box type	The Sumitomo machine Industrial Co., Ltd.		1 1942	usable idle



No. 2

Item Name	Type	Manufacturer's Name	Size and Capacity (single unit)	No. of Units	Year Built	Condition
12 Head tank	Box type	The Sumitomo Machine Industrial Co., Ltd.		1	1942	Usable idle
13 Brake Crusher	Double floor	The Sato Machine Manufactory	5RT/E 125mmx6mm	1	1942	Usable idle
14 Motor 15 HP	Open type	The Tokyo plant Shibaura Co., Ltd.	15 HP	1	1942	Usable idle



775013

No.	Item	Name	Type	Manufacturer's Name	Size and Capacity (Single Unit)	No. of Units	Year Built	Condition	Use
15	Pump		spiral type	The Ebara Co., Ltd.	175 mm	1	1943	usable	in use For pharmacy- Belphepine, Acetanilid sulfanilyl guanidine
16	"		"	"	"	1	1943	"	idle
17	Motor	20 HP	Open type	The Meidensha Co., Ltd.	20 HP	1			in use For pharmacy- Belphepine Acetanilid sulfanilyl guanidine
18	"	20 HP	"	"	"	1	1943	usable	idle
19	Motor		open type	The Shibaura Co., Ltd.		1	1943	"	in use For pharmacy- Sulphan-good lyl guanidine
20	Tank		spiral tube type	The Sato Industrial Co., Ltd.		1	1943	"	idle
21	Pump		Eddy type	The Ebara Co., Ltd.		1	1943	"	in use For pharmacy- Belphepine
22	Motor		Double open type	The Shibaura Co., Ltd.		1	1943	"	idle
23	First catalyst holder with water jacket	wood tank		The Ono wood tank & pipe Co., Ltd.	1500x1400 x1400	1	1943	"	"
24	"		Acid proof made by porcelain	The Yashima ceramic Co., Ltd.		1	1943	"	"



No. 4

Item	Name	Type	Manufacturer's Name	Size and Capacity (single Unit)	No. of Units	Year Built	Condition	
25	Reaction vessel No. 1 with water-jacket	Vertical Cylinder type	The Toyo carry air Co., Ltd.	834x1500	1	1943	Usable	idle
26	"	"	"		1	1943	"	"
27	Pump	Eddy type	The Kbara Co., Ltd.		1	1943	"	in use for pharmacy-sulfanilyl guanidine
28	"	"	"		1	1943	"	idle
29	"	"	"		1	1943	"	"
30	"	"	"		1	1943	"	"
31	"	"	"		1	1943	minor repair in use	for pharmacy-saccharin
32	Motor	Enclosed type	The Shibaura electric industrial Co., Ltd.	2 HP	1	1943	"	" for repairing
33	"	"	"		1	1943	"	idle
34	"	"	"		1	1943	"	in use for pharmacy-Acetanilid
35	"	"	"		1	1943	"	"
36	"	"	"		1	1943	usable	in use for pharmacy-Alcohol, Saccharin good
37	spare reaction vessel No. 1	Cylinder type	The Yashima Co., Ltd.	ceramic 750x1600	1	1943	Completely damaged	



No. 5

Item	Name	Type	Manufacturer's Name	Size and Capacity (single unit)	No. of Units	Year Built	Condition	
38	counter shaft				1	1943	Usable	in use for farmacy-Belphenine
39	Motor 7.5HP	Enclosed type	The shibaura electric industrial Co., Ltd.	7.5 HP	1	1943	"	idle
40	Tank	Cylinder type	The Sato factory		1	1943	"	"
41	PUMP	Eddy type	The Ebara Co., Ltd.		1	1943	"	in use for farmacy-sulfanilyl guanidine
42	Motor	Double open type	The shibaura electric industrial Co., Ltd.	2 HP	1	1943	Minor Repair	idle
43	Tank	Spiral type	The Sato factory		1	1943	usable	idle
44	"	"	"		1	1943	"	"
45	Pump	Eddy type	The Ebara Co., Ltd.		1	1943	"	in use for farmacy-sulfanilyl guanidine
46	"	"	"		1	1943	"	idle
47	Motor 3 HP	All enclosed type	The Meidensha Co., Ltd.	3 HP	1	1943	"	"
48	"	"	"		1	1943	"	"
49	Reaction vessel No. 2	Double can type	The Toho chemical industrial Co., Ltd.	1400x1750	1	1943	Minor Repair	in use make for rubber accelerator
50	"	"	"		1	1943	Completely Damaged	idle