



THE BLACK VAULT

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45-1

February 1958 - Through January 1959

RESEARCH GRANTS:

B {

[REDACTED]
Patient Hospitalization
[REDACTED]
[REDACTED]

\$36,800.00
1,000.00 \$37,800.00
2,950.00
3,466.66 44,216.6

SALARIES & FEES AND SOCIAL SECURITY:

Salaries and Fees
Social Security

15,478.90
307.23 15,786.1

SUPPLIES AND SERVICES:

Special Chemicals:

B

[REDACTED]

\$ 650.00
217.80
1,355.68
2,037.52
4,261.00

B

[REDACTED]

918.30
27.98
946.28 5,207.2

TOTAL EXPENDITURES

\$ 65,210.3

5,207.28 C
15,786.13
4,421.66
 .00
 .00
65,210.07 *

February 1958 - Through January 1959

RESEARCH GRANTS:

B

[REDACTED]	\$36,800.00	
[REDACTED] Patient Hospitalization	1,000.00	\$37,800.00
[REDACTED]		2,950.00
[REDACTED]		<u>3,466.66</u>
		\$44,216.66

SALARIES & FEES AND SOCIAL SECURITY:

Salaries and Fees		15,478.90
Social Security		<u>307.23</u>
		15,786.13

SUPPLIES AND SERVICES:

Special Chemicals:

B

[REDACTED]	6,650.00	
[REDACTED]	217.80	
[REDACTED]	1,355.68	
[REDACTED]	<u>2,037.52</u>	4,261.00
[REDACTED]	918.30	
[REDACTED]	<u>27.98</u>	<u>5,446.28</u>
		5,207.28

TOTAL EXPENDITURES

\$ 65,210.00

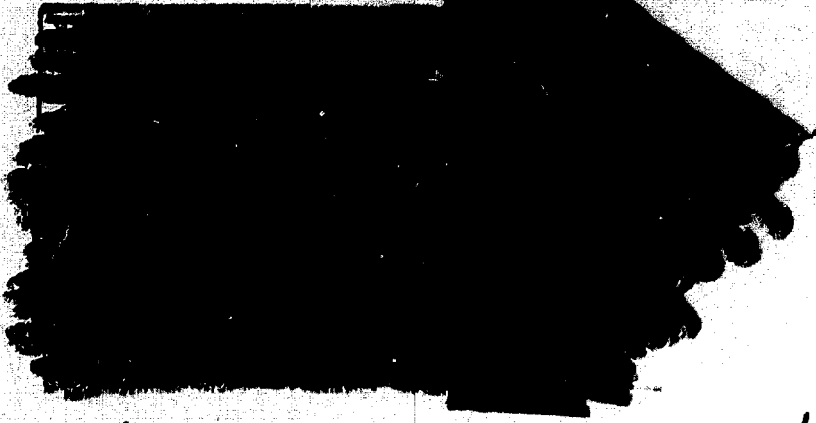
45-1

B

E



E



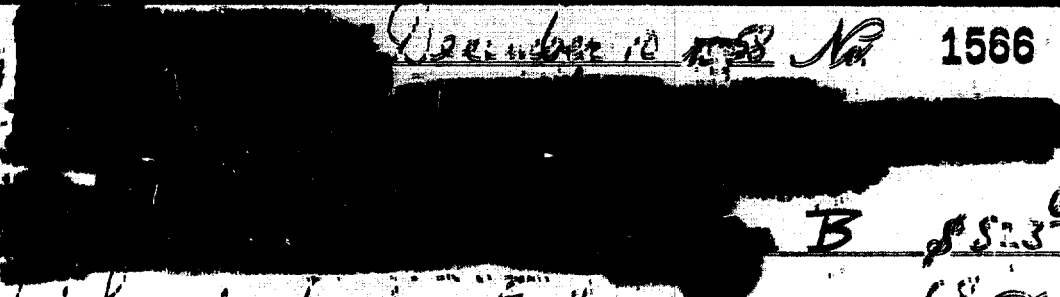
FOR DEPOS

82
113.64

December 10 1968 Nov

1566

Pay
to the
order of



E

B

\$ 523.68

Eight hundred and twenty three and 68/100

Dollars

Special check

B

C



B

B
FOR DEPOSIT ONLY

E

E



1250



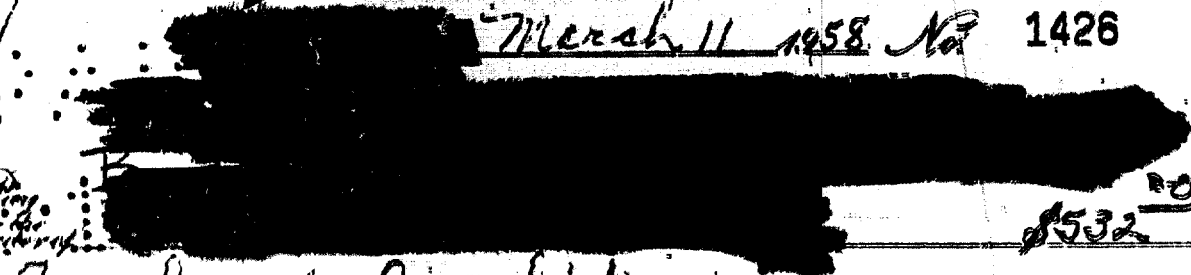
B

E

March 11 1958 No 1426

✓

Pay to the order of



\$532.00

Five hundred thirty-two

00 Dollars



B

D. B. ...

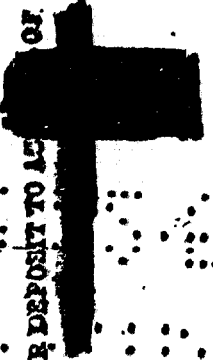
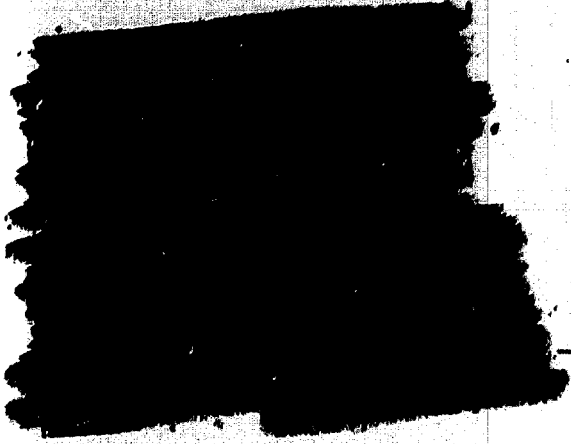
E

C



DEPARTMENT OF JUSTICE

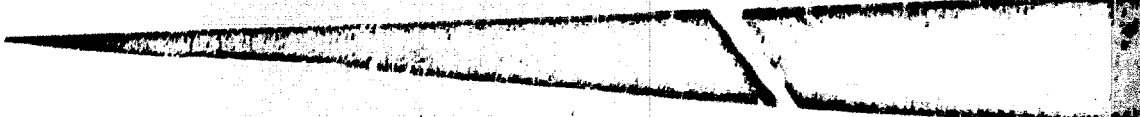
E



FOR DEPOSIT TO ACCOUNT

E

B



	<p><i>[Redacted]</i></p> <p><i>[Redacted]</i></p> <p><i>[Redacted]</i></p> <p><i>[Redacted]</i></p>	<p>APR 15 1951</p> <p><i>[Redacted]</i></p> <p><i>[Redacted]</i></p> <p><i>[Redacted]</i></p>
--	---	---

E

B

E

B

C

E

Revenue No. 1546

B

[Redacted]

B

One hundred

and no/100ths

cash
and 92/100

E

C

\$ 160.⁵⁹

⁵⁹ Dollars

AUTHORIZED SIGNATURE

B

PAY TO THE ORDER OF
[Redacted]

E

[Redacted]

1591

January 6 1954 No.

B

Pay to the order of

[REDACTED]

\$137 10

United States thirty-nine

10 Dollars

spec. chemical

B

C

AUTHORIZED SIGNATURE

PAY TO THE ORDER OF

B

E

E

[REDACTED]

[REDACTED]

[REDACTED]

B

E

February 28, 1958 No. 1419

Pay B
to the
order of

\$ 52.⁹¹

Fifty-two

91/100 Dollars

Invoices 992059; 490756

Special Chemicals

AUTHORIZED SIGNATURE

PAY TO THE ORDER OF

B

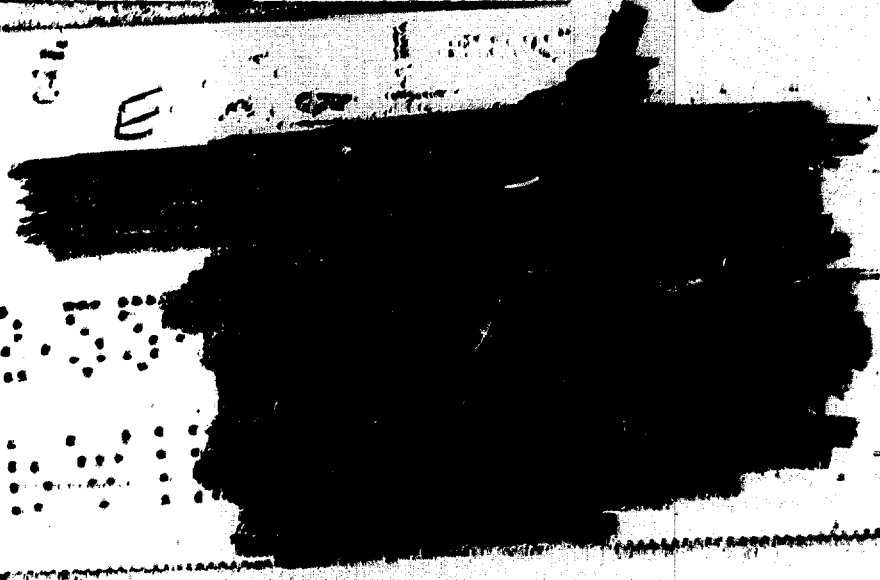
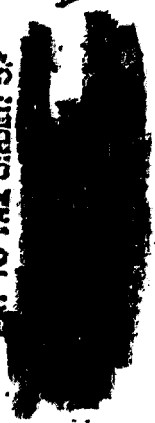
E

[Large redacted area]

B

E

PAY TO THE ORDER OF



B

E

May 1958 No

1467

E

The sum to be ordered



\$1,684

96

One thousand, hundred and eighty-four

96 Dollars

Special Chemicals

E

B

C



AUTHORIZED SIGNATURE

B

May 13 1958 No. 1455

[REDACTED]

650.00 E

Pay to the order of

[REDACTED]

100 Dollars

Special Chemicals

B
C

[REDACTED]

AUTHORIZED SIGNATURE

STYL 7

AMERICAN

B

E

[REDACTED]

E

[REDACTED]

FBI SECURITY ONLY

[Redacted] *Filed 28 1958 No. [Redacted] E*
 [Redacted] *E [Redacted] E*
Pay to the order of [Redacted] *C* *\$ 233⁷⁰!*
Two hundred thirty three *74 Dollars*
supplies E *C* [Redacted] *B*

C [Redacted] *E* [Redacted]
 [Redacted] *E*
 [Redacted]

45/2

B

October 9 1958 No. [REDACTED]

[REDACTED] E
[REDACTED] E E

Pay to the order of

[REDACTED]

\$201.46

Washington

46 Dollars

Scrupulous

B

[REDACTED]

001187

FOR DEPOSIT ONLY
TO ACCOUNT OF

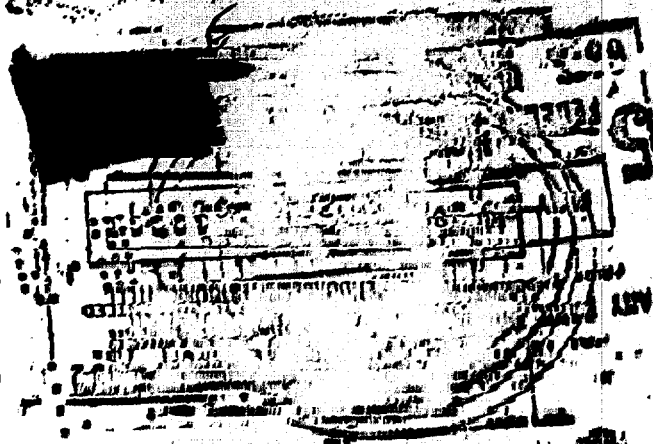
[REDACTED]
[REDACTED]

[REDACTED]

DC 124 1958

75-3

FOR DEPOSIT ONLY
Treas.



Washington, D.C. D.C.

1958 No 1466

[Redacted]

Pay to the order of

Research Foundation

\$1,733.00

One thousand

and no/100

33 Dollars

and pay Grant

EDITION 1958

4573

RECEIVED PAYMENT
WASHINGTON DC CLEANING HOUSE

MAR - 5 1958

MAR 9 1958

ANY BANK DEPOSITED OR PAID

THE FEDERAL RESERVE BANK OF WASHINGTON
WASHINGTON, D.C. 20540

118

Washington, D.C. February 28 1958 No. 1411

Pay to the order of [Redacted]

Eight hundred and no/100

Reverse of [Redacted]

N.P.

Signature [Redacted]

45-5

WASHINGTON, D.C.

RECEIVED PAYMENT TRIM TO E
WASHINGTON, D.C. CLEARING HOUSE
MAY 27 1958
F&I

Chicago, Ill

Washington, D.C. May 13 1958 No. 1457

N.P.

Pay to the order of *Hospital* \$1000⁰⁰

1000 Dollars

Pt hospitalization

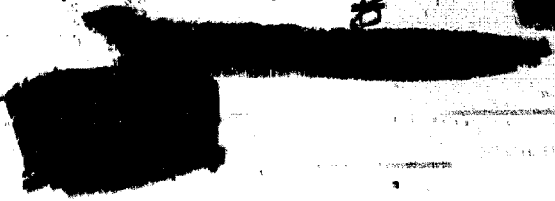
SIGNATURE



B



E



B

E



B

E

45-
1108

WASHINGTON

AUGUST 12 1958

\$ 4,000.00

Four thousand

00 /
100 DOLLARS

For Research Grant



453

DEPOSIT ON THE ACCOUNT OF
 [REDACTED]
 BANK OF AMERICA TRUST CO
 MAY 19 1958
 [REDACTED]
 [REDACTED]

453
 [REDACTED]

[REDACTED]

N. P.

Washington, D.C. May 17 1958 No 1465

Pay to the order of

Six thousand

[REDACTED]
 \$6000.00
 Dollars

Grant-Pathology Dept

[REDACTED]

AUTHORIZED SIGNATURE

Callahan

RECEIVED PAYMENT
 JUN 20 1958
 6 1958
 BANK OF AMERICA
 FEDERAL RESERVE BANK OF ATLANTA
 CO.

Callahan

Callahan

B

Washington, D.C. June 8 1958 1475
 [Redacted]
 [Redacted] Medical School \$5,000.00
 Five thousand [Redacted] 00 Dollars
 Grant - Pathology Dept.

45-3

Washington, D.C. December 10 1958 No. 1500

Pay to the order of

[REDACTED]

[REDACTED]

[REDACTED]

School

\$1,000.⁰⁰

thousand

Dollars

Special

AUTHORIZED SIGNATURE

PAID TO THE CREDIT OF

[REDACTED]

DEC 10 1958

THE BANK OF AMERICA NATIONAL ASSOCIATION
MEMBER FEDERAL RESERVE SYSTEM
WASHINGTON, D. C.

ANY BANK TAKING ON TRUST CO.
FIDELITY GUARANTEED

Receipt No. A 3061

[REDACTED]

Pay to the order of

[REDACTED]

45-3

UNIVERSITY MICROFILMS INTERNATIONAL No. 1530

[REDACTED]

Pay to the order of University

Two thousand ⁰⁰/₁₀₀ hundred and fifty ⁰⁰/₁₀₀ Dollars
Research Grant

\$2,950⁰⁰

00 Dollars

[REDACTED] AUTHORIZED SIGNATURE

FOR DEPOSIT ONLY
TO THE CREDIT OF

[REDACTED]

[REDACTED]

[Redacted] - E

100
100

B

B

December 10 1958 No

File
with
entry

- C 600

of hundred

100 Dollars

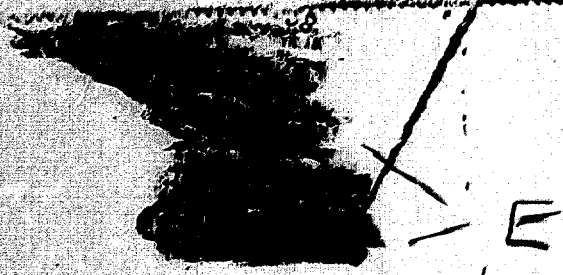
Special Research Agent

B-

[Redacted]

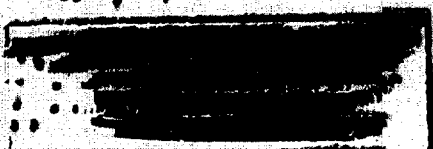


C



E

Handwritten text consisting of several rows of small, illegible characters, possibly a code or cipher.



B



May
talk
order

Five per

Special Research Project

E

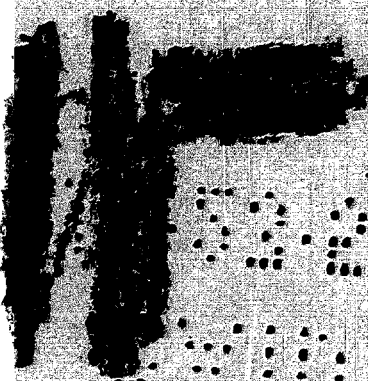
B-



5500

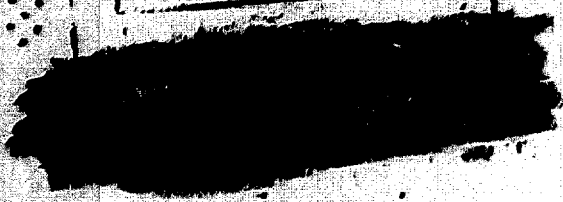
(Latter)

459

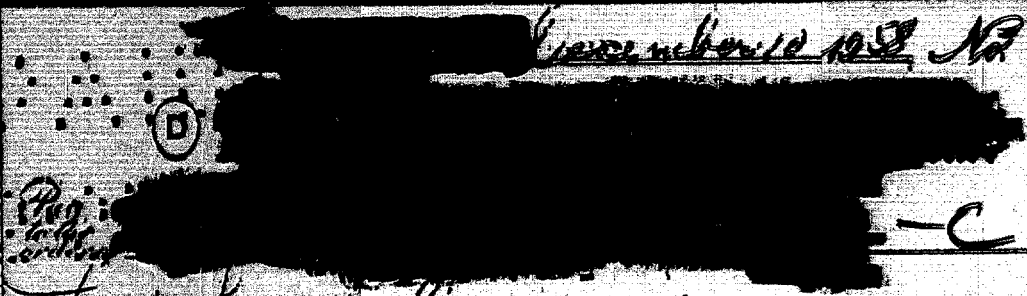


DEC 23 '58 011

- E



B



Memorandum No. [redacted]

(D)

Reg. to the [redacted]

- C

\$300⁰⁰

Handwritten text, possibly "Handwritten"

00 Dollars

Handwritten text, possibly "Handwritten"



E

B

B

[Redacted]

Pay to the order of

[Redacted]

- C

[Redacted]

Sum of

[Redacted]

Dollars

and current interest

[Redacted]

13

B

[Redacted]

- E

POST OFFICE

[Redacted]

[Redacted]

E



66666 05.91 NAC



C

June 1958 No

Pass
book

- C \$600.00

hundred

\$600.00

D-164 Studies

B

B

(C)

[REDACTED]

(E)

[REDACTED]

(E)

[REDACTED]

NOV 23 1958

(C)

[REDACTED]

December 31 1958 No. [REDACTED]

Pay to the order of

One [REDACTED] hundred

Consultant

(E)

(E)

(C)

\$100⁰⁰

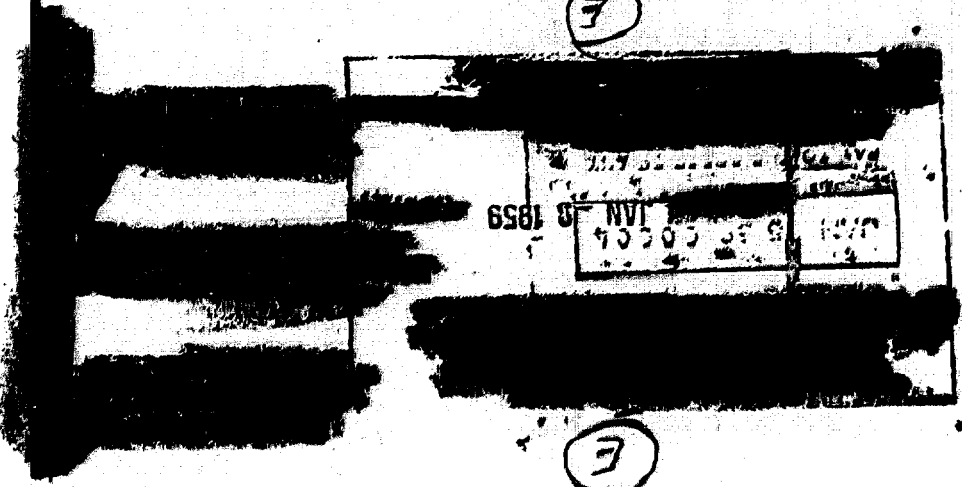
00 Dollars

(E) (E)

AUTHORIZED SIGNATURE

(9)

(7)



(7)

(3)

December 31, 1958 No

Pay to the order of

Two hundred & eight (C) *\$ 208⁰⁰/₁₀₀*

Salary (B) *97 Dollars* (E) (G)

(C)

(A)

AUTHORIZED SIGNATURE

(B)

[Redacted] December 22 1958 No. [Redacted] (E)

Pay to the order of

[Redacted] (C)

\$100.00
100 Dollars

10000.00
Xmas Bonus

(S)

(C)

(H)

AUTHORIZED SIGNATURE

(D)

[Redacted]
[Redacted]
[Redacted]
[Redacted]

(E)

455

December 22, 1958 No. [redacted]

(E)

(E)

(E)

\$250.⁰⁰

Pay to the order of

two hundred and fifty

00 Dollars

250.00

James Bonnes

AUTHORIZED SIGNATURE

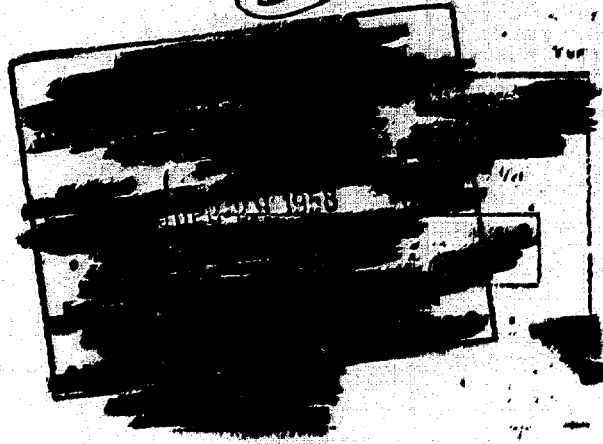
(E)

(E)

(E)

(C)

(E)



(B)

[Redacted] December 12 1958 No. [Redacted] (E)
 [Redacted] (E) [Redacted] (E)
 Pay to the order of [Redacted] (C) \$100⁰⁰
 One hundred and 00/100 Dollars
 James Bonner [Redacted] (B) [Redacted] (E)
 [Redacted] (C) [Redacted] (H)

AUTHORIZED SIGNATURE

(B)

December 22 1958 No.

(E)

(E)

Pay to the order of

(C)

\$50.00

Feltius

00 Dollars

Xmas Bonus

50000000

PRINTED SIGNATURE

(E)

(C)

(C)

(E)

(E)

66666 8542 00

(C)

(E)

(E)

DEC 24 1953

(C)

December 24, 1953 No. [redacted]

(E)

(E)

*Do not
sign
order*

(C)

\$268 ⁹⁷

Two hundred and eight

77 Dollars

(B)

(C)

Xmas money

AUTHORIZED SIGNATURE

(A)

(E)

(E)

[REDACTED]

[REDACTED]
DEC 12 6 50 PM '51
[REDACTED]

(A)

(E)

[REDACTED]

(E)

(C)

(E)

(B)

(A)

[REDACTED]

AUTHORIZED SIGNATURE

K 2611 12/12/51

	1	5	0	3	0	✓
	1	6	8	1	10	✓
	2	0	8	3	5	✓
		9	7	5	0	✓
	2	0	8	3	3	✓
	1	0	0	0	0	✓
				0	0	
				0	0	
	9	3	2	5	0	✓
	<u>170.00</u>					
	1052.60					

total

January 30 1959 No. [redacted]

Pay to the order of

One hundred and fifty



\$150³⁰

150 Dollars

B

B

C

E

150 00/100

E

[Redacted]
 [Redacted] 30 January 50 1959. [Redacted]
 [Redacted]
 [Redacted]
 [Redacted] - C
 [Redacted] \$168¹⁰
 [Redacted] received a eighty-eight [Redacted]
 [Redacted] 100 Dollars
 [Redacted]
 [Redacted]

DD
to the
order of

received a eighty-eight

\$168¹⁰
100 Dollars

Selency

B

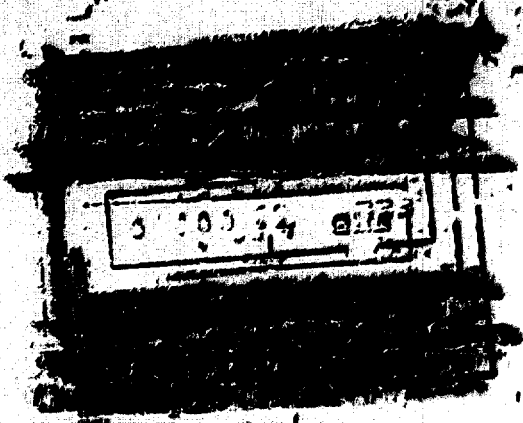
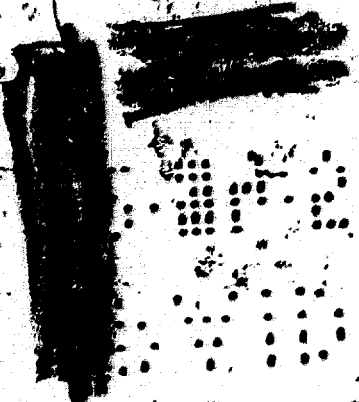
B

-C

[Redacted]
 [Redacted] UNION ENDORSEMENTS GUARANTEED
 [Redacted] FEB 4 1959
 [Redacted]

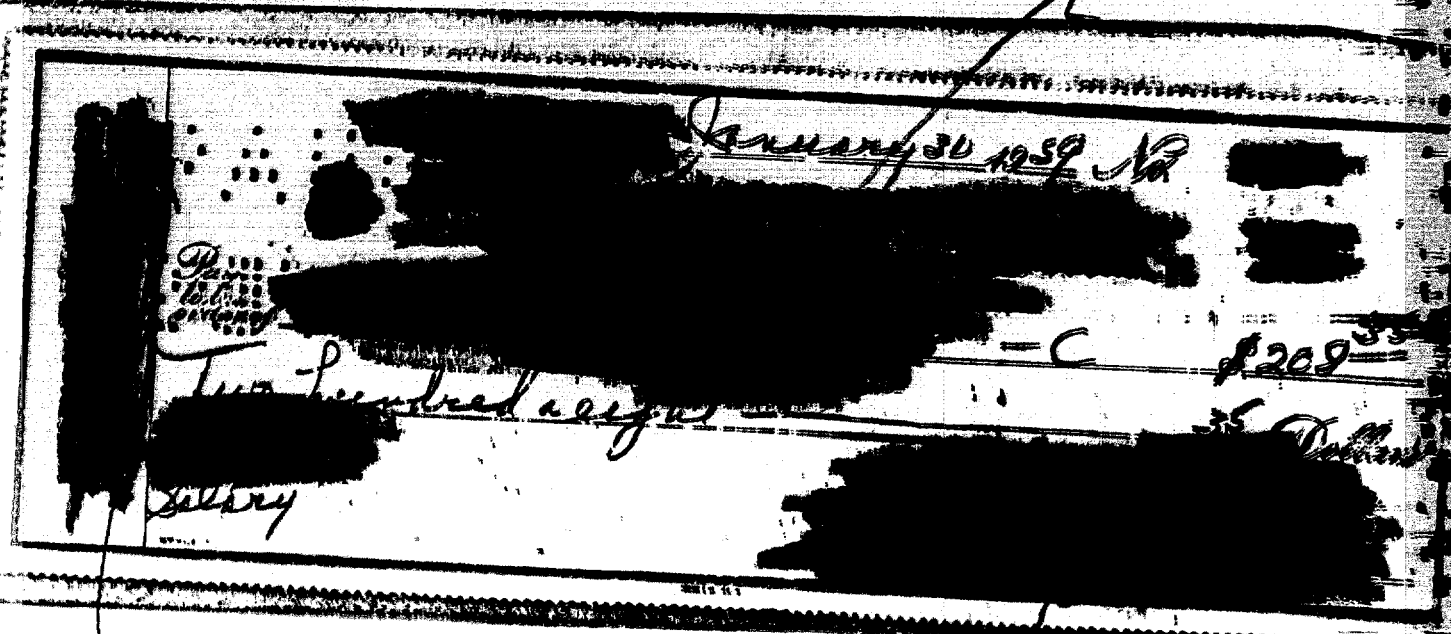
-E

456



-E-

C



January 30 1959

The
Post
Office
Category

Two hundred and eighty

Selsby

-C-

\$209

B

B

E

January 30 1959 No.

\$ 97⁵⁰

100 Dollars

Pay to the order of

Salary

B

B

E

FEB 20 1959

January 30 1959 No.

Pay
To the order of

Two hundred and eight

Dollars

\$ 208³⁵

35/100

B

B

C

E

C ✓ E

[REDACTED]

ALBANY, N.Y. 12208

[REDACTED]

E

[REDACTED]

[REDACTED]

[REDACTED]

One Hundred Dollars

Salary

B

B

January 15 1959 No.

Pay to the order of

\$120⁰⁰

One hundred and twenty

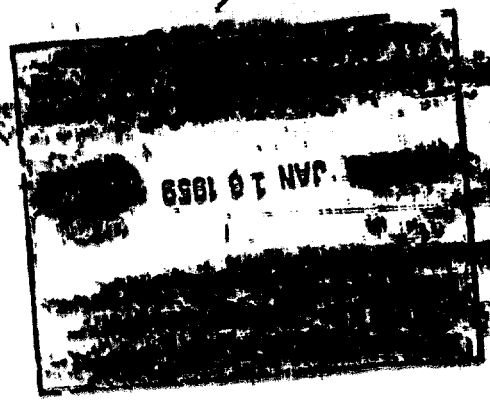
00 Dollars

Salary

B

B

E



C

E

[Redacted]
 [Redacted]
 [Redacted]
 [Redacted] - C \$100⁰⁰
 [Redacted] hundred⁰⁰ Dollars
 [Redacted]
 Consultant [Redacted]

B

B

E

[Redacted]

E

[Redacted]

[Redacted]
 [Redacted]
 [Redacted]

B

November 27 1955 No.

Pay to the order of

One hundred and fifty dollars

150 Dollars

Jersey E

B

B

C

E

November 19 1958 No

Pay to the order of

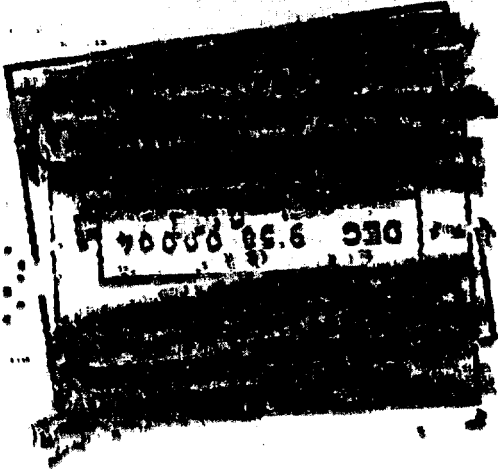
97 75
75
100 Dollars

Salary

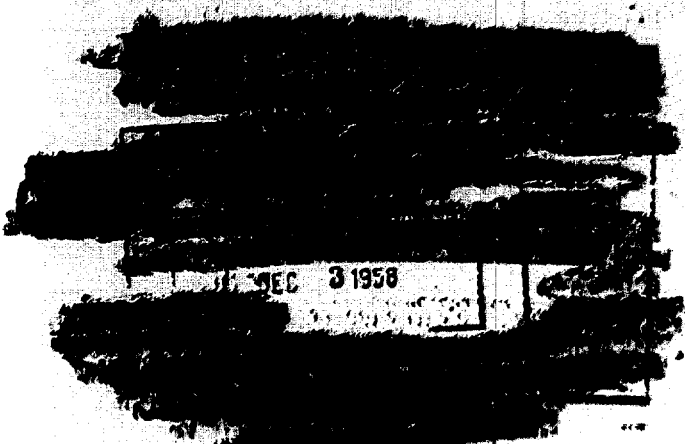
B

B

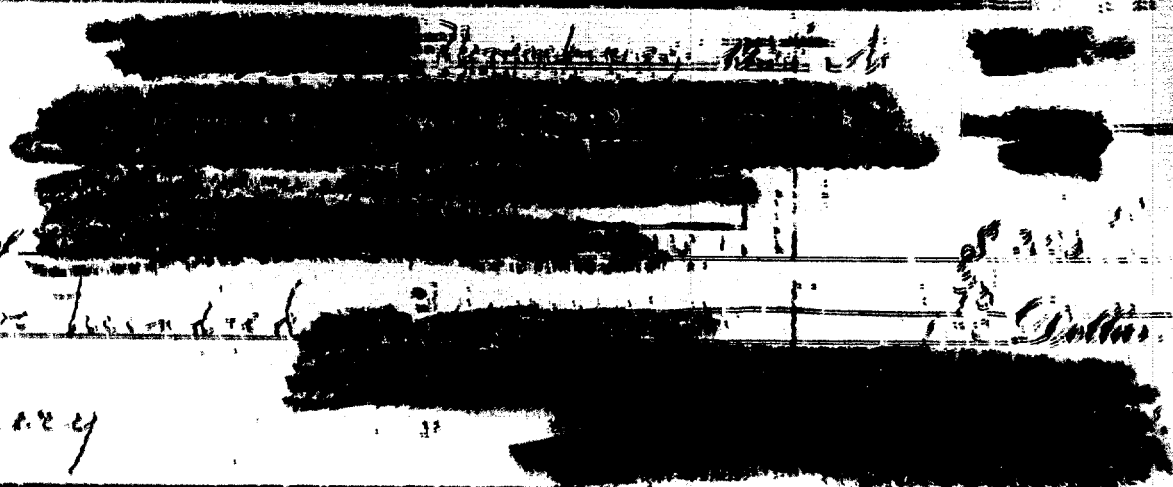
C



E



DEC 3 1958



Pay to the order of

Five hundred

Salary

Dollars

July 19 1900

Pay to the order of

- C

\$ 100.00

Dollars

Salvage

E

B

B

[Redacted]

[Redacted]

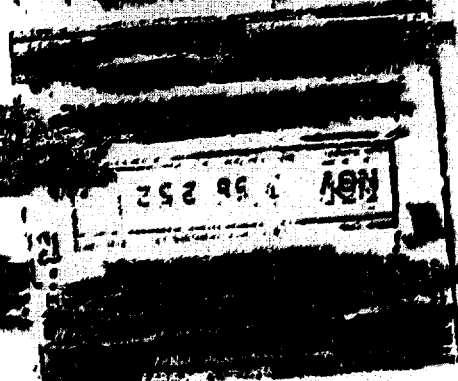
- E

C

√	1	0	0	0	0	C
√	2	0	8	9	7	√
	1	6	9	1	0	√
	2	0	8	9	7	√
	1	5	1	5	2	√
		9	7	7	5	√
				.0	0	
				.0	0	
	9	3	6	3	0	1
						1

C

E



October 20 1958 No

E E

(C)

100 Dollars

Pay to the order of

One Hundred

B

Consistent

C

B

October 29 1958 No. [redacted] E

E

E

[redacted] *remittance for receipt*

C

8208 27

Salary E

B

97 Dollars

C

AUTHORIZED SIGNATURE

C

[redacted] E

[redacted] *8208 27* *97*

E

[redacted]

[redacted]

[Redacted]
 [Redacted]
 [Redacted]
 [Redacted] C
 [Redacted] E
 [Redacted] E
 [Redacted] C
 [Redacted] \$ 167.⁰⁰
 [Redacted] Dollars
 [Redacted] B
 [Redacted] C
 [Redacted]

Pay to the order of

Line

Salary

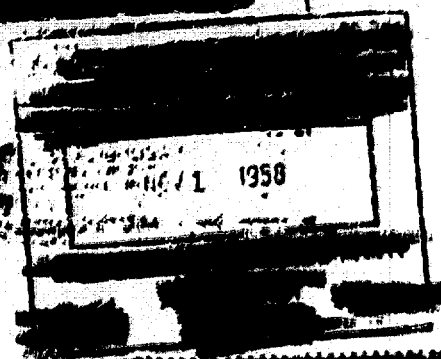
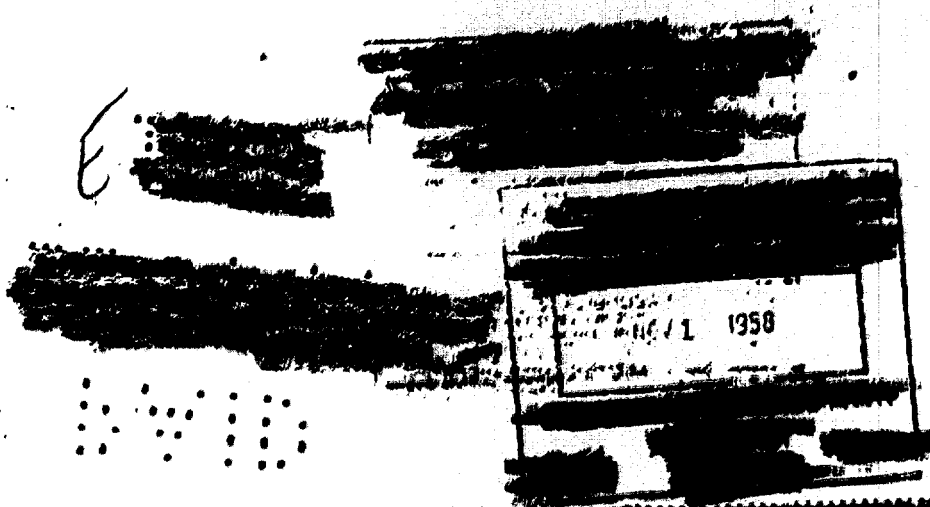
ST-100

PRINTED SIGNATURE

[Redacted] E
 [Redacted] E
 [Redacted]
 [Redacted]
 [Redacted]
 [Redacted]
 [Redacted]

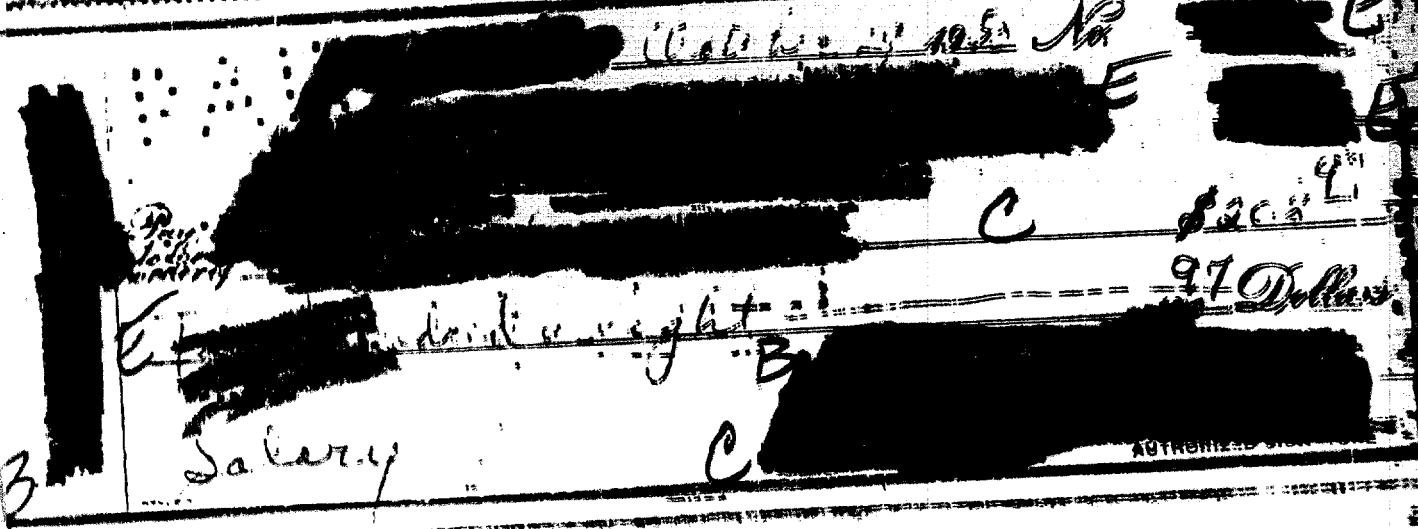
[Redacted]
 [Redacted]
 [Redacted]
 1000 62.9 NON
 NOV 8 1958
 [Redacted]
 [Redacted]

E



E

Category 1958 No



Payroll history

Standard weight

Salary

C

\$20.50

97 Dollars

B

C

AUTHORIZED

3

(Circular stamp) No. 58 No. E
 [REDACTED] E
 [REDACTED] C \$9⁰⁰
 [REDACTED] 7⁰⁰ Dollars
 [REDACTED] B
 [REDACTED] C SIGNED SIGNATURE
 B [REDACTED]

[REDACTED] E
 [REDACTED]
 [REDACTED]
 [REDACTED]

September 30, 1958 No. [redacted]

E

[redacted]

\$151.53

To the order of

One

hundred and fifty - 00/100

53 Dollars

Salary

B
C

[redacted]

C

[redacted]

E

001 150

For Beyond

[Redacted]

[Redacted]

E

B

[Redacted]

[Redacted]

8169

10-21-68

B

C

[Redacted] *United States* [Redacted] E E
 [Redacted]
 [Redacted]
 [Redacted] 08
 [Redacted] *United States* [Redacted] 08
 [Redacted] B C [Redacted]

B

C

C

E

[Redacted]
 [Redacted]
 [Redacted]
 [Redacted]

45-9

September 30 1955 No. [redacted] e

Pure
Litho
order of

\$ 208 ⁹⁸

Two h [redacted] eight

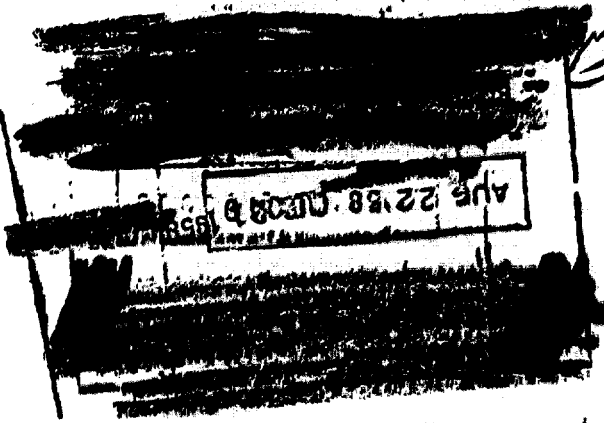
⁹⁸ Dollars

Salary

B

c

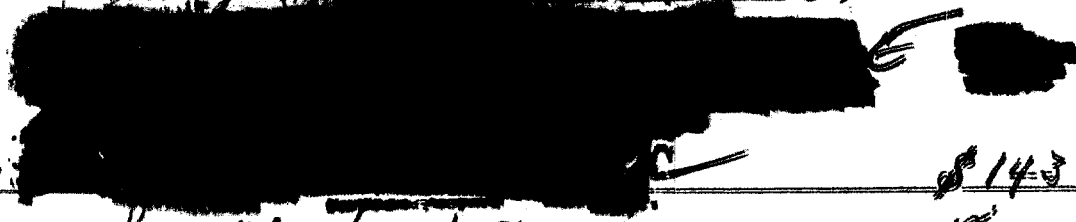
e



APR 22 1958

1	4	3	1	5	C	
2	7	9	5	7	8	V
2	9	8	9	7	7	V
1	6	9	7	5	7	V
1	0	9	1	0	7	V
2	1	0	8	9	0	0
1	3	0	5	2	7	#1

Washington, D.C. August 24 1958 No. 1504



Pay to the order of

One hundred and fifty dollars

Salary

\$ 143 ¹⁵

15 Dollars



45-10

[REDACTED]

[REDACTED]
PAY TO THE ORDER OF
ANY BANK, BANKER OR TRUST CO.
BANK ENDORSEMENT GUARANTEED

NOV 20 1958 3:10 P

WASHINGTON DC

[REDACTED]

• • • • •
• • • • •
• • • • •

Washington, D.C. August 20 1958 No. 1506

[REDACTED]

[REDACTED]

E **[REDACTED]**

Pay to the

[REDACTED]

\$ 295 ⁷⁵

hundred and no/100ths

⁷⁸ Dollars

[REDACTED]

AUTHORIZED SIGNATURE

C
E
for dip...

WASHINGTON, VIRGINIA

SEP 5 58 9446

OF WASHINGTON

Washington, D.C. *1507*

1507

1507

1507

THE UNITED STATES OF AMERICA
THE TREASURY DEPARTMENT
GUARANTEED
FEDERAL RESERVE BANK

[REDACTED]

PAY TO THE ORDER OF
BANK, BANK OF AMERICA
CORPORATION, NEW YORK, N.Y.

[REDACTED]

RECEIVED BY THE BANK OF AMERICA

For deposit only

[REDACTED]

75

1508

29.10.58

1508

Washington, D.C. August 24, 1958 No. 1509

B
to the
order of

(D) [REDACTED]

5 [REDACTED]

pay

[REDACTED]

N. W.

\$ 167⁰⁰

One hundred and sixty-seven Dollars

Salary

[REDACTED SIGNATURE]

Des: Depard
[REDACTED]

[REDACTED]

De [redacted] 1958 No. 1510

[redacted]

E

NOV. 11. 1958

160.00

to the [redacted]

[redacted]

100 - Dollars

Consultant

[redacted]

PRINTED SIGNATURE

[redacted]

SEP 6 1958

SEP 6 1958

[redacted]

[redacted]

Washington, D.C. August 29 1958 No. 1511

[REDACTED]

Pay to the order of

[REDACTED]

\$208.97

Two hundred and eight

97/100 Dollars

Salary

[REDACTED SIGNATURE]

REGISTERED SIGNATURE

[REDACTED]

AMERICAN SAVINGS AND TRUST CO.
PRIOR ENDORSEMENTS REQUIRED
SEP 9 1958
[REDACTED]

B [REDACTED] July 31 1958 No. [REDACTED] E
 [REDACTED] E
 [REDACTED] C
 [REDACTED] hundred & eight [REDACTED] 90 Dollars
 [REDACTED] B
 [REDACTED] C
 Salary [REDACTED] AUTHORIZED SIGNATURE

u
 9597007005 #1
 911709009
 859708
 6469100 927
 21112 9

[REDACTED] E
 [REDACTED]
 [REDACTED]

[REDACTED] E
 [REDACTED]
 AUG 1 - 1958
 [REDACTED]

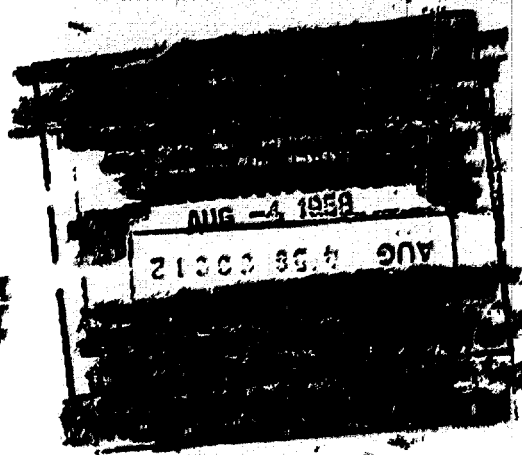
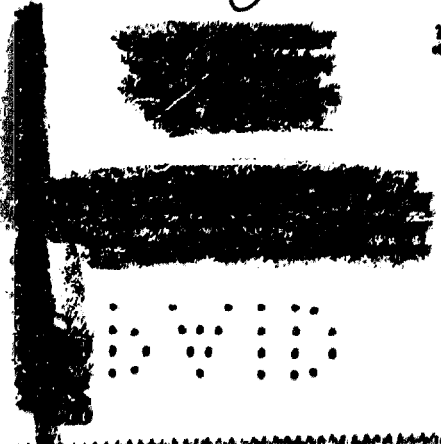
July 31 1958 No. [redacted] E
 [redacted] E
 [redacted] C \$169.¹²
 One hundred and sixty-nine and 12/100 Dollars
 Salary B [redacted]
 C [redacted]

Pay to the order of

[redacted] E
 [redacted] E
 AUG 9 1958
 [redacted]

E

E



[Redacted] July 31 1958 No [Redacted] E
 [Redacted] E
 [Redacted] C \$97 75
 [Redacted] 75 Dollars
 [Redacted] C
 Salary

July 31 1956 No. E

Pay to the order of

One Hundred

Consultant

\$100.00

Dollars

C

B
C

[Redacted]

C

[Redacted]

B

[REDACTED] 1958 Nov [REDACTED] E
 [REDACTED] E
 Pay to the order of [REDACTED] C \$169¹⁰
 One hundred and sixty-nine and 10/100 Dollars
 Salary [REDACTED] B
 [REDACTED] e
 AUTHORIZED SIGNATURE

H

C

E

[REDACTED]

[REDACTED]
 [REDACTED]
 [REDACTED]
 [REDACTED]
 [REDACTED]

[REDACTED]
 [REDACTED] 06 JUN 1958 [REDACTED]
 [REDACTED]

E

[REDACTED]

✓ U
 1107580
 1107900
 0707800
 640900
 11221

#1
 0013
 000
 7
 027

[REDACTED]

B

June 30 1958 No. [redacted]

[redacted] E [redacted] E

Do not
tear
away

143¹⁵

One hundred forty-three Dollars

[redacted] B [redacted] C

THE FIRST SIGNATURE

[redacted] E

[redacted]
[redacted]
[redacted] 8961 & c 718 76789 [redacted]
[redacted]

E

[redacted]

June 30 1958 No. [REDACTED] E

[REDACTED] E

Pay to the order of [REDACTED] C \$208⁹⁷

[REDACTED] hundred & eight [REDACTED] 108⁹⁷ Dollars

Salary B [REDACTED]

Pay to the order of [REDACTED]

C E

[REDACTED]

[REDACTED] 8951 [REDACTED] [REDACTED]

[REDACTED]

[REDACTED]

B

Issue date 1958 No

Pay to the order of

75

75 Dollars

See back

B

AUTHORIZED SIGNATURE

For deposit only

E

JUL - 7 1958

JUL 7 58

E

C

E

Vertical scribble

Grid of dots

Rectangular scribble with '05.17' and 'TOP' visible

E

B

Vertical scribble

Large horizontal scribble

June 30 1955 No.

E

Small text: Please to be...

Low... right

\$208.75

28 Dollars

Salary

E

B

Large horizontal scribble

1958 No. 1468

(D)

*Place
last
initial*

*One Hundred
Twenty
Six*

Selwyn

\$ 14.3

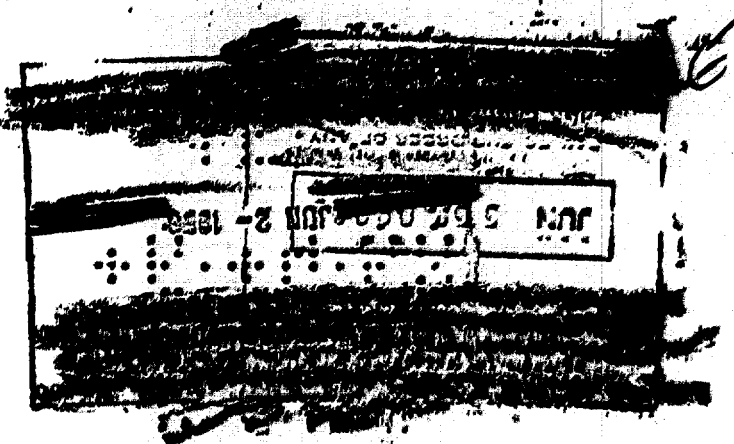
15

15

15

U	U	U	U	U	#1
0	0	0	5	1	0
0	0	0	1	0	0
5	9	8	7	8	0
1	4	6	2	0	0
1	1	2	2	1	9





B

Washington, D.C. May 20 1958 No 1470

Pay to the order of

Two hundred ~~and~~ *no* Dollars
Salary

\$ 208 ⁹⁸
98
Dollars

UNIVERSITY MICROFILMS

45-13

FI FOR DEPOSIT ONLY

JUN 2 - 1958



Washington, D.C. *Washington, D.C.* No. 1471

*Please
fill in
address*

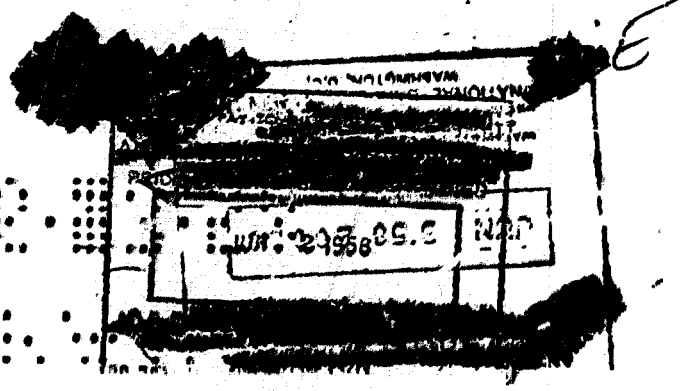
Ninety-seven

Salary

\$97.75

100 Dollars

for deposit



Washington, D.C. May 2, 1958 No. 1472

To the order of [Redacted]

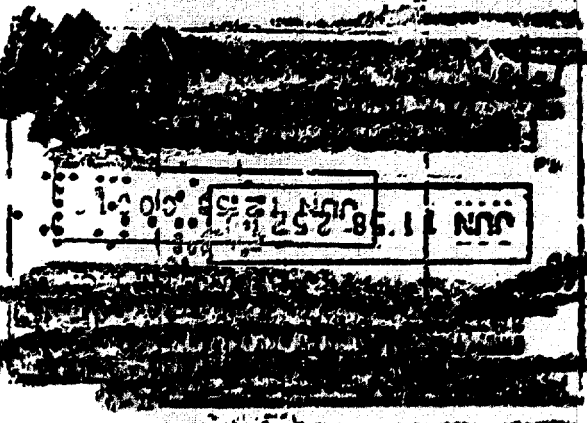
Two hundred and eight \$ 208⁹⁷

Salary \$ 208⁹⁷ Dollars

AUTHORIZED SIGNATURE

45-13

C
1-13-58



JUN 11 1958

B

Washington, D.C. May 29 1958 No 1473



Pay to the order of

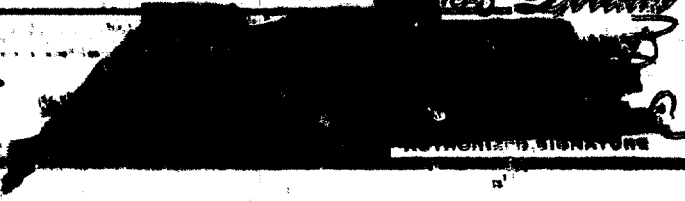


\$ 100⁰⁰

One hundred

00 Dollars

Consultant



(B)

April 30 1951 No.

(E)

To the order of

(C)

\$169¹⁰

One hundred sixty-nine and 10/100 Dollars

Salary

CHAS

(B)
(C)

AUTHORIZED SIGNATURE

1057580005
1438780005
1649200927
11221927

(C)

For deposit

(E)



11

(D)

April 30 1958 No. [redacted]

(E)

Pay to the order of

(C)

\$ 143¹⁵

[redacted] hundred & forty-three

15 Dollars

Salary

(B)

(C)

[redacted]

NYC 100

1516

NYC DEPOSIT CHECK

(C)

(E)

[redacted]	[redacted]
MAY 1 - 1958	MAY 2 1958
[redacted]	[redacted]

45-14

(b)

April 30 1958 No.

Pay to the order of

Two ~~hundred~~ and eight

Salary

(E)

(C)

\$208⁹¹

97 Dollars

(B)

(C)

AUTHORIZED SIGNATURE

STYLE 7

(C)

(E)

MAV 8 1958

(C)

(E)

(E)

[REDACTED]

REV. 9.58 0900

[REDACTED]

(b)

April 1958 No. [REDACTED]

Pay to the order of

Ninety

Dollars

(C)

(C)

(E)

\$ 97.75

75

SIGNATURE

(B)

[Redacted] 30 [Redacted] No. [Redacted] (E)
 [Redacted]
 Pay to the order of [Redacted] (C) \$208⁹⁸
 Two hundred and [Redacted] 98 Dollars
 Salary [Redacted] (B) (C) [Redacted]
 [Redacted] SIGNATURE

(C) (C)

[Redacted] (E)
 [Redacted]
 [Redacted] MAY 6 1950
 [Redacted]

(C)

(E)

(E)

[Redacted vertical text]

[Redacted text block]

[Redacted text block]

[Redacted text block]

85-21

(B)

(E)

(C)

[Redacted vertical text]

[Redacted text block]

[Redacted text block]

included
Permitted

(E)

(E)

C

new report
[Redacted]

[Redacted]

E

C	41
15	108
175	097
108	005
379	099
808	099
496	008
100	927
120	927
120	927
92	927

B

[Redacted]

March 1954 for [Redacted] E

[Redacted] E

Day letter history [Redacted] C

[Redacted] 5008.97

[Redacted] P. Collins

[Redacted] B

[Redacted] C

De Long

45-15

C
[Redacted]

[Redacted]

B

March 31 1958 No. [Redacted]

[Redacted]

Paid to order of

One hundred
Salary

[Redacted]

\$100.00

100 Dollars

[Redacted]

March 31 1958 No. [redacted] E

a

Pay
order of

Two hundred and eight

Salary

\$208⁹⁸
98 Dollars

b

c

E

[Large redacted area]

[REDACTED] 51-1958 No. [REDACTED] E
 [REDACTED] E
 Pay to the order of - [REDACTED] C \$169 ¹⁰/₁₀₀
 [REDACTED] 10 Dollars
 [REDACTED] AUTHORIZED SIGNATURE

[REDACTED] E
 [REDACTED]

B

March 31 - 1954 No. [REDACTED]

Pay to the order of

\$97⁷⁵

Ninety-

and 75/100 Dollars

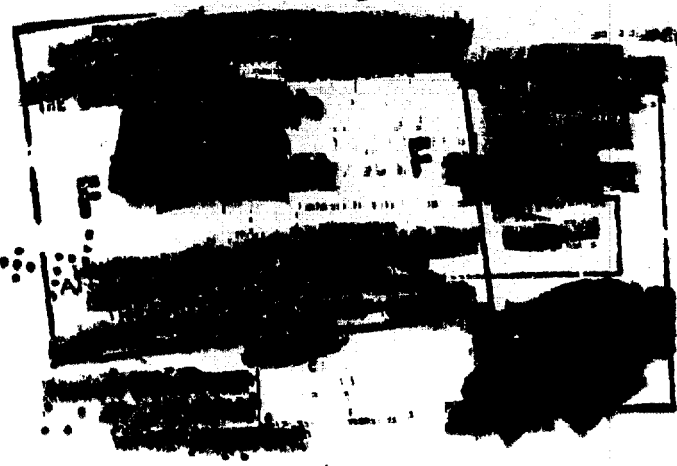
Salary

1954

1954

C

E



March 31 1958 No. [redacted]

Pay to the order of

One hundred forty three
Salary

\$ 143¹⁵
15 Dollars



Washington, D.C. February 28 1958 No. 1406

W
N

Post
to be
made by

Five hundred

Seals

E

C

\$97 75

75 Dollars

AUTHORIZED SIGNATURE

RECEIVED PAYMENT THRU THE
WASHINGTON PAYMENT HOUSE
ON FEBRUARY 28 1958

MAR 4 1958

AND BANK BRIDGES TRUST CO.
WASHINGTON, D. C.

①

Washington, D.C. February 1958 No. 1407

[REDACTED]

Pay to the order of

[REDACTED]

\$169¹⁰

One hundred and sixty-nine

and 10/100 Dollars

[REDACTED]

Authorized Signature

See deposit

[REDACTED]

PAY TO THE ORDER OF ANY BANKER OR TRUST COMPANY

[REDACTED]

[REDACTED]

[REDACTED]

MADE IN THE U.S.A.

For Deposit

PAY TO THE ORDER OF ANY
 BANK PAYEE OR TRUST CO
 MAR 4 - 1958
 GUARANTEED
 FEDERAL RESERVE BANK OF WASHINGTON
 WASHINGTON, D. C.

Washington, D.C. February 28 1958. No. 1408

Pay to the order of

Two hundred and eighty

Seventy

N. W.

97

W. J. Collins

AUTHORIZED SIGNATURE

45-118

you deposit

756 2222

756 2222

MAR 0 1958

ANY BANK BANKER OR T

Washington, D.C. February 28 1958 No. 1409

Pay to the order of


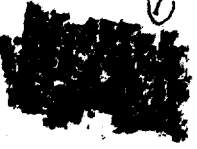
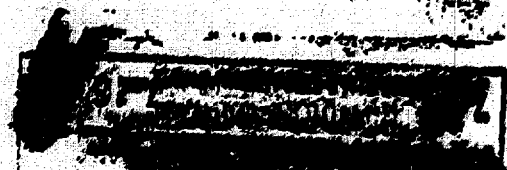
\$200.00

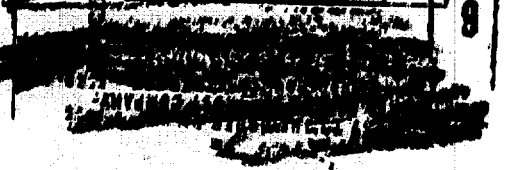
Eight

100 Dollars

John Doe




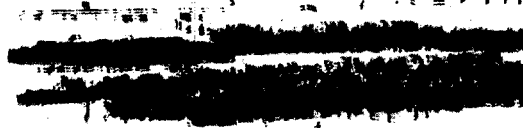
[Signature]
AUTHORIZED SIGNATURE



Washington, D.C. - ~~12/28~~ - 1958. In 1410

Prop. to the...

*Withholding Tax
Federal Security*

1	7	4	1	0	0	C
1	7	4	1	0	0	C
1	7	4	1	0	0	C
1	7	4	1	0	0	C
1	7	4	1	0	0	C
1	7	4	1	0	0	C
2	5	5	3	2	0	C
1	7	5	9	8	0	C
1	7	5	7	5	0	C
1	7	5	9	8	0	C
1	7	5	9	4	0	C
1	7	1	6	6	0	C
1	7	1	6	6	0	C
2	1	7	4	8	4	C

872000 Washington, D.C. January 17, 1959 No. 1596

Pay to the order of [redacted] \$ 152

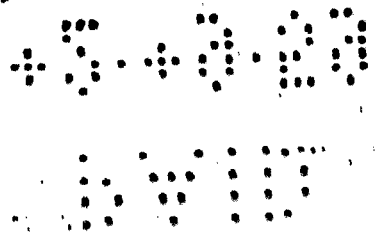
One [redacted] Dollars

Withholding tax

TREASURER U. S.

THIS CHECK IS IN PAYMENT OF AN OBLIGATION TO THE UNITED STATES AND MUST BE PAID AT PAR.

STANDARD



WASHINGTON, D.C. FEB 6 1959
TREASURER OFFICE
PAY TO THE ORDER OF
U.S. GOVERNMENT
3 1959

45-17

Washington, D.C. March 7, 1958 No. 1423

is check, is in payment
of obligation to the United States

and may be paid in full, A. P. Do

2

[REDACTED]

\$174

enclosed a sum of four hundred and sixteen dollars

withhold tax

[REDACTED]

[REDACTED]

3-9A
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

45-17

4 1 0 0 0
4 1 0 0 0

127

BALTIMORE, MARYLAND

1958

AVI 15.58 15006

ON RECEIVED PAYMENT THROUGH THE

PAY TO THE ORDER OF

MAY 14 1958

45-17

Washington D.C. 1958 No 1440

EWE

26142

\$174.10

One hundred twenty-four

174 Dollars

00000

Income Tax

C

45-17

Washington, D.C. July 23 1958 No. 1486

3

Pay to the order of

[REDACTED]

132111

B

\$174⁰⁰

(One hundred and 00-0000 - four) Dollars

W. H. ...
Social Security
Agency, ...

[REDACTED]

1234567890
1234567890
1234567890

1234567890
1234567890
1234567890

1234567890
1234567890
1234567890

45-17

Washington, D.C. August 8 1958 No. 1498

TO THE ORDER OF

[REDACTED] E [REDACTED] E
 [REDACTED] E [REDACTED] E
 [REDACTED] E [REDACTED] E
 [REDACTED] E [REDACTED] E
 [REDACTED] E [REDACTED] E
 [REDACTED] E [REDACTED] E

AUG 13 1958
 Withheld from
 [REDACTED]

seventy-four

\$174 ¹⁰/₁₀₀
 10 Dollars

45-17

[REDACTED]

AUG 13 50 63065
 TO THE ORDER OF

E E

CH



E

16 58 65065

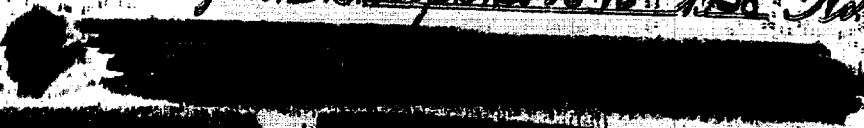
U.S. GOVERNMENT PRINTING OFFICE

E

Chief Clerk

100-100000

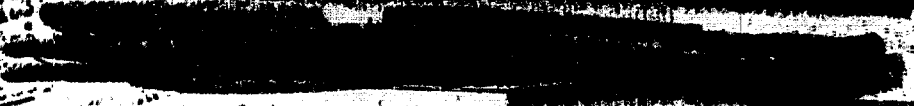
Washington, D.C. September 10, 1958 No. 1514



E



E



E

255-32

Two hundred and fifty-five

30

SEP 20 1958
W.H. Tolson



B

C

b

E

E

UNITED STATES GOVERNMENT
 OFFICE OF THE ATTORNEY GENERAL
 DEPARTMENT OF JUSTICE
 WASHINGTON, D. C. 20530

2001 81932

50-85-5

E

11 11 11
 11 11 11
 11 11 11
 11 11 11

1402497 Washington, D.C. October 22 1958. No 1528

E *E*

Pay to the order of

Three

C \$3⁷⁵
 75 Dollars

Washington Top

AUTHORIZED SIGNATURE

B

REPORT OF EXPENDITURES

February 1, 1957 - January 31, 1958

Research Grants:

B B B	[REDACTED]	\$50,150.00	
	[REDACTED]	<u>1,605.00</u>	\$51,755.00
	[REDACTED]		12,381.31
	[REDACTED]		<u>4,591.95</u>
	[REDACTED] and Social Security		\$ 68,726.26
			16,917.65

Travel and Meetings:

C C C C C C	[REDACTED]	\$183.87	
	[REDACTED]	282.38	
	[REDACTED]	249.53	
	[REDACTED]	264.00	
	[REDACTED]	360.17	
	[REDACTED]	<u>539.33</u>	
			1,869.28

Special Chemicals:

B B B B B	[REDACTED]	6,280.00	
	[REDACTED]	2,526.21	
	[REDACTED]	270.80	
	[REDACTED]	517.40	
	[REDACTED]	<u>300.00</u>	
			9,894.41

Supplies:

B B B B B	[REDACTED]	1,633.83	
	[REDACTED]	231.00	
	[REDACTED]	522.02	
	[REDACTED]	131.76	
	[REDACTED]	<u>85.06</u>	
			<u>2,603.67</u>

Total

\$ 100,013.27

Sp # 45

Spic
Chamberlain

6	8	7	2	8	.00	U
1	6	9	1	7	.26	N
	1	8	6	9	.65	U
		9	8	9	.28	
		2	6	0	.41	
				3	.67	
					.00	
					.00	
1	0	0	0	1	.27	#

2	5	7	4	0	C
2	6	0	.00		
3	0	0	.00		
2	7	0	.80		
2	5	2	6	.21	
6	2	8	0	.00	
				.00	
9	8	9	4	.41	#

B

[REDACTED]

[REDACTED]

[REDACTED]

B

E

[REDACTED]

B

[REDACTED]

Special Agent

[REDACTED]

M...

[REDACTED]

B

1982

E

[REDACTED]

1981

Washington, D.C. ...

B

[REDACTED]

Special Agent

[REDACTED]

[REDACTED]

1982

B

[REDACTED]

E

[REDACTED]

E

1981

Washington, D.C. ...

HS-19

Washington, D.C. Dec 10 1957. In 1300

[REDACTED]

E E

B

Dear Mr. [REDACTED]

[REDACTED]

B

B

C

Washington, D.C. Dec 10 1957. In 1202

[REDACTED]

E

O

[REDACTED]

Dear Mr. [REDACTED]

B

Sincerely,

[REDACTED]

B

C

B

if

||

[REDACTED]

E E

[REDACTED]

B

[REDACTED]

B

B

[REDACTED]

B

2	4	0	0	.00
2	5	0	0	.00
1	5	0	0	.00
				.00
				.00
6	2	8	0	.00

1950

(D)

[REDACTED]

E E

The
following

[REDACTED]

B

19,330

C

One thousand three hundred

special chemicals

[REDACTED]

B

Washington, D.C. March 1, 1959. No 1200

(D)

[REDACTED]

E E

The
following

[REDACTED]

B

One thousand four hundred twenty three

Items
931872
14,000

[REDACTED]

B

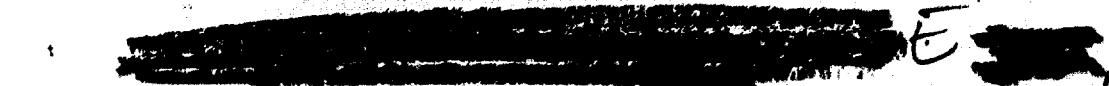
C

B

1	5	2	4	3	5	6	8	7	C
2	5	2	6	2	0	1	0	1	*



B

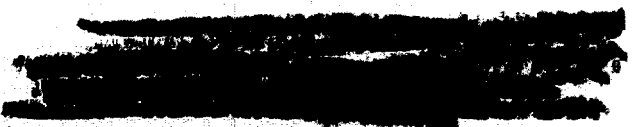


E

D



B



B
C

B



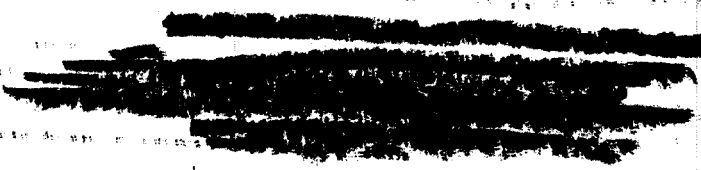
(C)

E

D



B



C

B

Washington, D.C.

1957 1203

[Redacted]

E E

[Redacted]

B

Handwritten notes

Handwritten notes

[Redacted]

B

[Redacted]

L

B

[Redacted vertical text]

Washington, D.C. ...

[Redacted line] E E E

[Redacted line] C

Washington, D.C. ...

[Redacted line] B C

[Redacted vertical text]

Washington, D.C. ...

[Redacted line] E E E

[Redacted line] C

[Redacted line] B C

B

Washington, D.C. ... 1985

[REDACTED] E E

[REDACTED]

C

[REDACTED]

[REDACTED]

B
C

B

Washington, D.C. ... 1985

[REDACTED] E E

C

[REDACTED]

[REDACTED]

B
C

B

[Redacted text block]

E E

C

[Redacted text block]

B

C

B

[Redacted text block]

E E E

C

[Redacted text block]

B

C

B

Washington, D.C. August 12, 1950

[REDACTED]

E E E
E

Dear Mr. [REDACTED]:

[REDACTED] B
[REDACTED] C

Washington, D.C. August 12, 1950

[REDACTED]

E E E

Dear Mr. [REDACTED]:

[REDACTED] B
[REDACTED] C

B

[Redacted]

B

[Redacted]

[Redacted]

[Redacted]

C

[Redacted]

[Redacted]

[Redacted]

Handwritten signature

UU*IU	#1
000855809850000008580009	
0009719039310000000390000	
873807899000000049800	
v2 094051076000557800	
42232411214557800	
28560	

45-27

Washington, D.C. December 22, 1957 1371

[REDACTED] E E

[REDACTED]

C

1371

[REDACTED]

[REDACTED]

B

Washington, D.C. December 23, 1957 1370

[REDACTED] E E

[REDACTED]

C

1370

[REDACTED] B C

B

Memorandum for the President, 1937

[REDACTED]

[REDACTED] E E
[REDACTED]

C

[REDACTED] B

[REDACTED]

B

Memorandum for the President, 1937

[REDACTED]

[REDACTED] E E
[REDACTED]

C

[REDACTED] B

[REDACTED] C

B

Handwritten text, possibly a date or name, followed by a large blacked-out redaction. To the right of the redaction are the letters "E E E".

C

Handwritten text, possibly a date or name, followed by a large blacked-out redaction. To the right of the redaction are the letters "B" and "C".

B

Handwritten text, possibly a date or name, followed by a large blacked-out redaction. To the right of the redaction are the letters "E E E".

E E E

C

Handwritten text, possibly a date or name, followed by a large blacked-out redaction. To the right of the redaction are the letters "B" and "C".

B

C

B

Washington, D.C. November 21, 1957. 1362

[REDACTED]

E E

C

Dear Mr. [REDACTED]

[REDACTED]

B
C

Washington, D.C. November 21, 1957. 1361

[REDACTED]

E E

C

Dear Mr. [REDACTED]

[REDACTED]

B

[REDACTED]

[REDACTED] E E E E

[REDACTED] C

[REDACTED] B

[REDACTED] C

[REDACTED]

[REDACTED] E E E E

[REDACTED] C

[REDACTED] B

[REDACTED]

[REDACTED]

[REDACTED]

E E E

C

[REDACTED]

B

C

[REDACTED]

[REDACTED]

E E E

C

[REDACTED]

B

B

[REDACTED]

[REDACTED] E E E

[REDACTED] C

[REDACTED]

[REDACTED]

B

[REDACTED]

[REDACTED] E E E

[REDACTED] C

[REDACTED]

[REDACTED]

Handwritten text, possibly a name or address, mostly obscured by redaction.

1000

[Redacted vertical text]

[Redacted horizontal text]

E E E

[Redacted horizontal text]

c

Handwritten text, possibly a name or address, mostly obscured by redaction.

[Redacted horizontal text]

B

C

B

[Redacted vertical text]

[Redacted horizontal text]

E E E

E

[Redacted horizontal text]

B

C

B

Washington, D.C. [unclear] 1957. In 1956

(b)

[REDACTED] E E E

[REDACTED] C [unclear]

[REDACTED] B

[REDACTED] B

[REDACTED] E E E

[REDACTED] B

[REDACTED] B

~~_____~~
~~_____~~

B

~~_____~~
~~_____~~
~~_____~~

~~_____~~ E

E

~~_____~~ B

~~_____~~
~~_____~~ C

~~_____~~
~~_____~~

B

~~_____~~
~~_____~~
~~_____~~

~~_____~~ E

✓

~~_____~~ B

~~_____~~
~~_____~~ C

[Redacted]

B

[Redacted] E E C

[Redacted] B

[Redacted]

B

[Redacted] E E E C

[Redacted] B C

~~_____~~
B

~~_____~~ E E E
~~_____~~ C

~~_____~~ b
~~_____~~ c

~~_____~~
E

~~_____~~ E E E
~~_____~~ C

~~_____~~ B
~~_____~~ c

Washington, D.C. ... No. 1328

[REDACTED] E E E

For ... [REDACTED] C ...

[REDACTED] B

Washington, D.C. ... No. 1329

[REDACTED] E E E

For ... [REDACTED] C ...

[REDACTED] B

Washington, D.C. [unclear] 1957. No 1329

[Redacted]

E E

C

[Redacted]

B

Washington, D.C. [unclear] 1957. No 1324

[Redacted]

E E

C

[Redacted]

B

C

B

B

[Vertical scribble]

[Redacted] **E E**

[Handwritten]

[Handwritten]

[Redacted] **B**

D

[Vertical scribble]

Washington, D.C. 1957. 10. 1325

[Redacted] **E E**

[Handwritten]

[Handwritten]

[Redacted] **B**
C

45.24



Handwritten text, possibly a date or name, partially obscured by redaction.

[Redacted line] E E

[Redacted line] E

Handwritten text, possibly a name or address.

[Redacted line] B

[Redacted line] C

B

Washington, D.C. September 10, 1957. No. 1317

[Vertical scribbles]

[Redacted line] E *[Redacted]* E

[Redacted line]

C

[Faint handwritten text]

[Redacted line] B

[Vertical scribbles]

[Redacted line] E *[Redacted]* E

[Redacted line]

C

[Redacted line] B

C

[Vertical scribbled text]

[Large horizontal scribbled redaction]

E E E
C

B

[Horizontal scribbled redaction]

B
P

[Vertical scribbled text]

Washington, D.C. ... 1910

[Large horizontal scribbled redaction]

E E E

C

[Faint horizontal text, possibly a signature or address]

B

[Horizontal scribbled redaction]

B

Wilmington, N.C. ... No. 1302

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

B

B

C

Wilmington, N.C. ... No. 1302

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

B

E E

C

B

C

45-25

Washington, D.C.

Jan 12 1937

[REDACTED]

E E E

[REDACTED]

C

95
1208
J. L. [unclear]

[REDACTED]

B

C

b

Washington, D.C.

Jan 13 1937

[REDACTED]

E E E

[REDACTED]

C

72
J. L. [unclear]

[REDACTED]

B

C

D

Vertical scribbles on the left margin.

[REDACTED] 10/17/45 [REDACTED]

[REDACTED]

C

[REDACTED]

B

[REDACTED]

[REDACTED]

E E

C

[REDACTED]

B

C

[REDACTED]

[REDACTED]

E E

C

[REDACTED]

B

C

B

July

			.00	C
			.00	C
			.00	C
1	6	5	.24	✓
	9	7	.75	✓
2	8	8	.98	✓
1	3	5	.57	✓
1	4	9	.76	✓
2	0	8	.98	✓
1	0	0	.00	✓
			.00	
			.00	
1	0	6	.62	#

Washington, D.C. July 21, 1957. No. 1277

[Redacted]

[Redacted] E *[Redacted]*
[Redacted] C *[Redacted]*
[Redacted] C *[Redacted]* C

45.26

129

[Redacted text block]

E

[Redacted text]

[Redacted text block]

B

[Redacted text block]

e

[Redacted text]

[Redacted text block]

B

[Redacted text block]

[Redacted text block]

45-26

[Redacted]

B

[Redacted]

[Redacted]

C

[Redacted]

B
D

[Redacted]

B

[Redacted]

[Redacted]

D

[Redacted]

B
C

[Redacted]

B

[Redacted]

E E

C

[Redacted]

B
C

[Redacted]

B

[Redacted]

E E

C

[Redacted]

B
C

[Redacted vertical text]

B

[Redacted horizontal text]

E

[Redacted horizontal text]

[Redacted horizontal text]

C

[Redacted horizontal text]

C

[Redacted vertical text]

B

[Redacted horizontal text]

E

[Redacted horizontal text]

C

[Redacted horizontal text]

B

C

[Redacted vertical text]

B

[Redacted horizontal text]

E

E

[Redacted horizontal text]

C

[Redacted horizontal text]

B

C

[Redacted vertical text]

B

[Redacted horizontal text]

E

E

[Redacted horizontal text]

C

[Redacted horizontal text]

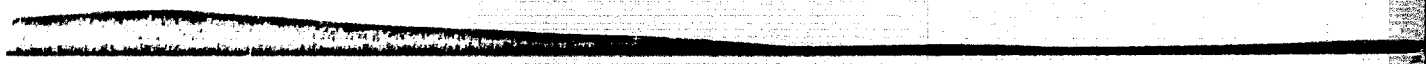
C

[Redacted vertical text]

B

[Redacted horizontal text] E [Redacted] E
C

[Redacted horizontal text] B
C



[Redacted vertical text]

D

[Redacted horizontal text] E [Redacted] E
C

[Redacted horizontal text] C

[Redacted vertical text]

[Redacted horizontal text]

E [Redacted] E

C

[Redacted horizontal text]

[Redacted vertical text]

[Redacted horizontal text]

[Redacted] E

C

[Redacted horizontal text]

B.
C

B

[Redacted vertical text]

B

[Redacted vertical text]

B

[Redacted horizontal text] E

[Redacted horizontal text] B

[Redacted horizontal text] E E
C

[Redacted horizontal text] C

~~Vertical scribble~~

B

~~Horizontal scribble~~ E ~~Horizontal scribble~~ E

~~Horizontal scribble~~ B
~~Horizontal scribble~~ C

~~Vertical scribble~~

B

~~Horizontal scribble~~ E ~~Horizontal scribble~~ E
~~Horizontal scribble~~ C

~~Horizontal scribble~~ D
~~Horizontal scribble~~ C

[Redacted vertical text]

[Redacted text] E E

[Redacted text] C

B

[Redacted text] C

[Redacted vertical text]

Washington, D.C. [Redacted] No. 1230

[Redacted text] E E

Pay to the order of

[Redacted text] C

Subway

[Redacted text] B C

[Redacted vertical text]

Washington, D.C. [Redacted] No. 1235

[Redacted text] E E

[Redacted text] C

B

[Redacted text] B C

45-29

Washington, D.C. April 19 1957. No. 1228

(D) [REDACTED] E E

5420

Pay to the order of

[REDACTED] \$ 155.00

One hundred and fifty five and 00/100 Dollars

Wm. S. ...

[REDACTED] B C

AUTHORIZED SIGNATURE

Washington, D.C. April 19 1957. No. 1232

(D) [REDACTED] E E

Pay to the order of

[REDACTED] \$ 9.00

Nine and 00/100 Dollars

Salary

[REDACTED] B C

B

Washington, D.C. March 11, 1957 No. 1199

(D) [Redacted] E E

Pay to the order of

TWO HUNDRED AND [Redacted] DOLLARS



C

Signature

[Redacted]

B

AUTHENTIC SIGNATURE

Washington, D.C. March 12, 1957 No. 1210

(D) [Redacted] E E

Pay to the order of

Five hundred [Redacted] DOLLARS

C

Signature

[Redacted]

C

AUTHENTIC SIGNATURE

Washington, D.C. Thursday, 1951. No. 1220

[Redacted] E E

[Redacted] C 3105

[Redacted] 3700

[Redacted] B C

B

Washington, D.C. Thursday, 1951. No. 1219

[Redacted] E E

[Redacted] C 5977

[Redacted] 3700

[Redacted] B C

B

[Redacted]

B

[Redacted]

E *[Redacted]*
C

[Redacted]

[Redacted]

B

[Redacted]

9222
E *[Redacted]*
C

[Redacted]

C

Rel

1	4	9	7	6	✓
2	0	8	9	8	✓
2	9	8	3	3	✓
1	3	5	5	7	✓
	9	7	7	5	✓
1	0	0	0	0	✓
			0	0	
			0	0	
9	9	0	3	9	#

45-31

Washington, D.C. December 13, 1957. No. 1195

(D) [REDACTED] E E

[REDACTED] C 1195 76

One hundred and fifty-nine dollars

Salary [REDACTED] B C

Washington, D.C. December 13, 1957. No. 1198

(D) [REDACTED] E E E

Pay to the order of [REDACTED] C 1198 98

Two hundred and eight dollars

Salary [REDACTED] B C

Washington, D.C. December 13, 1957. No. 1193

(D) [REDACTED] E E E

Pay to the order of [REDACTED] C 1193 83

Two hundred and eighty-three dollars

Salary [REDACTED] B C

Washington, D.C. August 28 1957 No. 1194

[REDACTED] E E

[REDACTED] C \$195.⁵⁷

One hundred and ninety five dollars

[REDACTED] B
[REDACTED] C

Washington, D.C. August 28 1957 No. 1196

(D) [REDACTED] E E

[REDACTED] C \$97.⁷⁵

Ninety seven dollars and seventy five cents

[REDACTED] B
[REDACTED] C

Washington, D.C. August 28 1957 No. 1197

(D) [REDACTED] E E

[REDACTED] C \$100.⁰⁰

One hundred dollars

[REDACTED] B
[REDACTED] C

153

1275

E E

B.

B

C

Washington, D.C. October 15 - 1957 No. 1319

(D)

E E

D

\$85.91

Eighty-five
Supplies

91 Dollars

45

Washington, D.C. Telephone No. 1335

[Redacted]

(D) **[Redacted]** E **[Redacted]**

Henry Jones

1542, 1562, 1574, 1588
Residence 27757

B

1931

153-1111

[Redacted]

MAY 11

Washington, D.C. Telephone No. 1349

[Redacted]

(D) **[Redacted]** E **[Redacted]**

Henry Jones

B

1931

153-1111

[Redacted]

B

C

45-34

[Redacted]

[Redacted]

E E

B

[Redacted]

B

[Redacted]

Washington, D.C. [Redacted]

1274

E E

[Redacted]

B

One hundred thirty [Redacted]

1274

[Redacted]

B

[Redacted]

Washington, D.C. December 21 1957 1356

[Redacted]

E E

[Redacted]

B

One hundred fifty seven

1356

[Redacted]

B

45-74

Washington, D.C. 1954 Nov 1320

(D) [REDACTED] E [REDACTED]

[REDACTED] B \$110.00

One hundred and ten Dollars

Supplies [REDACTED]

D

Washington, D.C. Account # 1957 Nov 1202

(D) [REDACTED] E [REDACTED]

[REDACTED] D \$121.00

One hundred and twenty one Dollars

Supplies [REDACTED]

D

Vertical text on the left margin, possibly a date or reference number.

[REDACTED] E E
 [REDACTED] D
 [REDACTED] B
 [REDACTED] B

D

Vertical text on the left margin, possibly a date or reference number.

[REDACTED] E E
 [REDACTED] B
 [REDACTED] B
 [REDACTED] C

D

6	3	3	8	0	U
2	3	1	0	3	
3	2	2	0	0	
1	3	1	7	6	
	8	5	0	6	
			0	0	
5	0	3	6	7	#

Revised

1	2	2	3	4	5	7	7	4
1	7	5	3	1	0	0	0	4
1	0	8	0	0	0	1	1	#
2	3	7	5	1	1	1	1	

T3176

45-35

B

Washington, D.C. May 13, 1957. In 1350

[Redacted]

[Redacted]

E [Redacted] E

[Redacted]

B [Redacted]

[Redacted]

[Redacted] B

[Redacted] C

B

Washington, D.C. May 13, 1957. In 1240

[Redacted]

(D) [Redacted]

E [Redacted]

Pay

[Redacted]

B [Redacted]

Account

Medical Specialties Unit

RESEARCH FUND FOR MEDICAL RESEARCH, INC.

[Redacted]

AMOUNT OF \$1,000.00

Washington, D.C. *[illegible]* 1978

[Vertical scribbles]

(D)

[Redacted line]

E *[Redacted]* E

[Redacted line]

B

[Faint handwritten text]

[Redacted line]

B

Jan 6 1978
[illegible]

[Redacted line]

C

Washington, D.C. December 13 1957 No. 1338

(D) [REDACTED] E [REDACTED]

[REDACTED] B \$17 ⁶¹

Seventeen ⁶¹ Dollars

Supplies - oil [REDACTED]

B

B

[REDACTED] E [REDACTED]

[REDACTED] B

[REDACTED]

Washington, D.C. 13 1957. No. 1240

[Vertical scribbles]

[Redacted text]

E *[Redacted]* E

B

[Faint handwritten text]

[Redacted text]

ADMINISTRATIVE SIGNATURE

B

Washington, D.C. No. 1226

[Vertical scribbles]

[Redacted text]

E *[Redacted]* E

B

[Redacted text]

B

[Redacted]

Washington, D.C.
[Redacted]

No. 1207
E
B
J. S. [unclear]
[unclear]

B

[Redacted]
[Redacted]

[Redacted]

Washington, D.C. November 22, 1922. No. 1374

(D) **[Redacted]**

E
B

Twenty-three
Supply Laboratory

[Redacted]
[Redacted]

B



Washington, D.C. State House 1257, No. 138

(D) [Redacted] E [Redacted]

Per [Redacted]

(D)

[Redacted]

B



Washington, D.C. State House 1257, No. 1309

(D) [Redacted] E [Redacted]

Per [Redacted]

(B)

[Redacted]

B

[Redacted] C

B

(10)

Washington, D.C.

July 1, 1933

Dear Mr. [redacted]
Enclosed for you are [redacted]
[redacted]

[redacted]

C

\$124

Left Dollars

AUTHORIZED SIGNATURE

45-37



Washington, D.C. May 7 1957 No 1237

(D) [Redacted] E [Redacted] E

Five hundred and thirty-one dollars

Travel expenses 1956

[Redacted] C \$529.33 Dollars



Washington, D.C. 19 57 No 1239

(D) [Redacted] E [Redacted] E

Travel expenses ACS meeting

[Redacted] C \$235.53 Dollars

SIGNATURE



Washington, D.C.

19... No. 1304

(D) [Redacted] E [Redacted]

Pay to the order of

The [Redacted] [Redacted]

C [Redacted]

Dollar

[Redacted] [Redacted]

WARRANTEE SIGNATURE



B

Washington, D.C.

19... No. 1229

[Redacted] E [Redacted] E

Pay to the order of

[Redacted]

C

[Redacted]

[Redacted] Dollar

[Redacted]

[Redacted]

WARRANTEE SIGNATURE

45

Washington, D.C.

1957. No. 1234

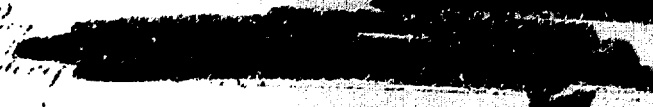


B



E E

Pay to the order of



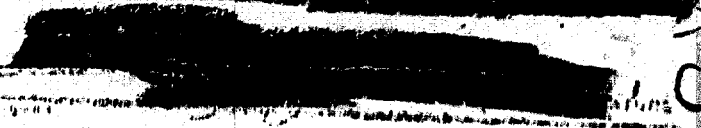
C

859 16

Travel expenses

100 Dollars

Travel expenses



H

C

B

Washington, D.C.

1957. No. 1321



B



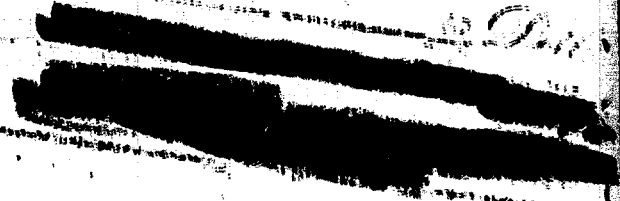
E E



C

Travel expenses

Travel expenses



H

B
[Redacted]

[Redacted]
[Redacted]

C

E

E

[Redacted]
[Redacted]

B



0050005	4
0090009	5
0010	1
0090	9
0050	5
1111	1



D



B



E



E

Christina Johnson

B



C



Washington, D.C. 2000



E

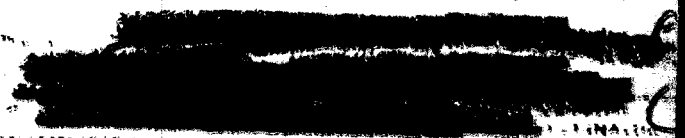


E

B



B



C

Washington, D.C. 20540

1284

B

[REDACTED]

E [REDACTED] **E**

[REDACTED]

B

My
to the
address

[REDACTED]

PC 7/10/11
L-10

[REDACTED]



B

[REDACTED]

E [REDACTED] **E**

[REDACTED]

B

[REDACTED]

E

45-3



#1 U	#1
000001000001	
000005000005	
001000	1
008000	8
06205	2
2 252	5
	1



Washington, D.C. March 12 1957. No. 1211



Pay to the order of



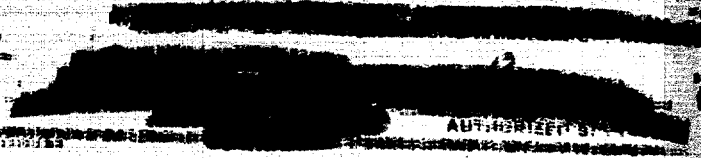
C

\$2,000

Two thousand

00 Dollars

Final payment re account



AUTHORIZED SIGNATURE

[REDACTED]

B

[REDACTED]

C

[REDACTED]

E

[REDACTED]

[REDACTED]

B

[REDACTED]

O

E

[REDACTED]

[REDACTED]

45-38

B

Washington, D.C. 20540

1333

[REDACTED]

E

B

Five thousand
Dollars

[REDACTED]

[REDACTED]

B

Washington, D.C. 20540

1341

[REDACTED]

E

B

Five thousand
Dollars

[REDACTED]

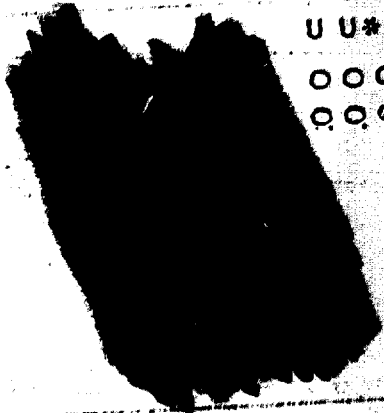
[REDACTED]

C

E

C

B



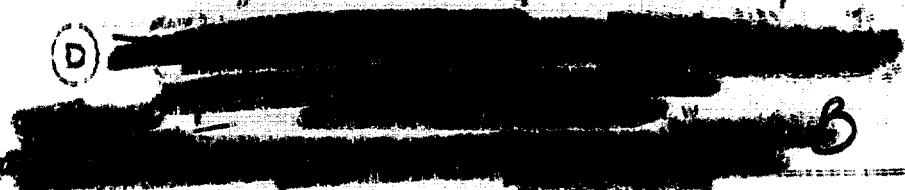
U	U*	U	#
0	0	0	0
0	0	0	0
5	0	0	0
1	0	0	0
1	5	0	0
1	6	0	0

B



Washington, D.C. December 30, 1957 No. 1375

(D)



E E

B

8125

Car. L. Beck and firm

1100 ...



Washington, D.C. March 12, 1927. No. 1212

(D)

[REDACTED]

E E

[REDACTED]

B

\$1,000

check

100 Dollars

as Hospitalization

[REDACTED]

B

AUTHORIZED SIGNATURE

C

Washington, D.C. August 7, 1927. No. 1297

B

(D)

[REDACTED]

E E

[REDACTED]

B

as Hospitalization

[REDACTED]

B

Washington, D.C. FEBRUARY 28 1957 No. 1192

(D)

Pay to the order of

[REDACTED]

B

\$1,500.00

One thousand, five hundred

[REDACTED]

[REDACTED] C

REGISTERED SIGNATURE

B

Washington, D.C. FEBRUARY 28 1957 No. 1192

[REDACTED]

[REDACTED]

B

[REDACTED]

B

Washington (1/1)

1227

[REDACTED]

E

[REDACTED] **B**

[REDACTED] **E**

B

Washington (1/1)

1227

[REDACTED] **E**

[REDACTED] **B**

[REDACTED] **B**

B

Washington, D.C. September 16, 1957 No 1305

(D)

[Redacted line] E [Redacted]

[Redacted line] B

Dear Mr. [Redacted] \$12.00

[Redacted line] B [Redacted] [Redacted]

B

Washington, D.C. September 16, 1957 No 1305

[Redacted line] E [Redacted]

[Redacted line] B

[Redacted line] B [Redacted]

B

Handwritten text, possibly a name or address, partially obscured by redaction.

1857 1850

Large redacted area with handwritten letters 'E' and 'B' visible on the right side.

Redacted area with handwritten letters 'B' and 'C' visible on the right side.

1137 No. 1332

Washington, D.C.

(D)

B

\$10,000

THE JOHNS HOPKINS

Pathology Dept. Received

B

[Redacted vertical text]

[Redacted horizontal text]

[Redacted horizontal text]

DATE			Approved.	Receipts	EXPENSES
21 Mar	55	FUNDS			
31 Mar	55	INVOICE #1		33333. ⁰⁰	100,000. ⁰⁰
25 May	55	INVOICE #2		33000. ⁰⁰	
16 Sep	55	INVOICE #3		33667. ⁰⁰	
21 Feb	56	INVOICE #4		33000. ⁰⁰	100,000. ⁰⁰
22 May	56	#5		33000. ⁰⁰	
10 Sep	56	#6		34000. ⁰⁰	
25 Jan	57	#7		33334. ⁰⁰	100,000. ⁰⁰
3 May	57	#8		33333. ³³	
17 Oct	57	#9		33333. ³³	
28 Jan	58	#10		21733. ³³	65200. ⁰⁰
22 Apr	58	#11		21733. ³³	
22 Sep	58	#12		21733. ³³	
5 Feb	59	#13		35750. ⁰⁰	75260. ⁰⁰
11 Jun	59	#14		35750. ⁰⁰	
5 Jun	59	* AUTHORIZATION #2	3760. ⁰⁰	3760. ⁰⁰	
21 Aug	59	#15		23833. ⁰⁰	71500. ⁰⁰
4 Jan	60	#16		23833. ⁰⁰	
13 Apr	60	#17		23834. ⁰⁰	
11 Aug	60	#18		20000. ⁰⁰	20000. ⁰⁰
7 Apr	61	#19		20000. ⁰⁰	
5 Oct	61	#20		40000. ⁰⁰	
13 Feb	61	#21			
		* PROPOSED 5 JUNE 59 SENT TO FINANCE 3 JUNE 59 A [REDACTED] RECEIVED FROM [REDACTED] C 10 JULY 59 [REDACTED] RECEIVED TO [REDACTED] C 10 SEPT 59 INVOICE #15 21 AUG 59			

45-40

1933
000

-45-

6-3500-10-001

11 AUG 1955	Anthony's #3 Sub. 45	25,000.00	32,000.00
19 SEP 1955	Invoice #3	38,000.00	-
3 FEB 1956	Anthony's #4 Sub. 45	10,000.00	10,000.00
24 FEB 1956	Invoice #4	37,000.00	67,000.00
24 MAR 1956	Invoice #5	37,000.00	37,000.00
12 SEP 1956	Invoice #6	37,000.00	-

big

45-41

MCUIRA
Sub - Project 45

Description	Date	Obligations	Expenditures	Balance		
Subgrant #1	May 31	1000000		1000000		
Invoice #1	Apr 1		33333.00	6667.00		
Est #1	May 15	2500000		3366700		
Invoice #2	June 28		3500000	66700		
" #3	1975		66700	-		
Invoice # 100	3366700 667	5755	L. 90			
	3500000	52				

45-42

February 1958 - Through January 1959

RESEARCH GRANTS:

B	[REDACTED]	\$36,800.00	
	[REDACTED] Patient Hospitalization	1,000.00	\$37,800.00
	[REDACTED]		2,950.00
	[REDACTED]		<u>3,466.66</u> 34,210.00

SALARIES & FEES AND SOCIAL SECURITY:

Salaries and Fees	15,478.90	
Social Security	<u>302.21</u>	15,781.11

SUPPLIES AND SERVICES:

Special Chemicals:

B	[REDACTED]	\$ 650.00	
	[REDACTED]	217.80	
	[REDACTED]	1,355.68	
	[REDACTED]	2,037.52	4,261.00
	[REDACTED]	918.30	
	27.98	<u>946.28</u>	5,207.28

TOTAL EXPENDITURES

\$ 65,210.00

This report is supported by photostatic
 copies of available checks drawn on [REDACTED]
 of [REDACTED]

B

I certify that this is a true statement.

[REDACTED]
 [REDACTED]
 [REDACTED]

A [REDACTED]

REPORT OF EXPENDITURES

February 1, 1957 - January 31, 1958

Research Grants:

B	[REDACTED]	\$50,150.00	
	[REDACTED] Patient Hospitalization	<u>1,605.00</u>	\$51,755.00
	[REDACTED]		12,381.31
	[REDACTED]		<u>4,931.95</u> \$ 68,728.26
	Salaries, Fees and Social Security		16,917.65

Travel and Meetings:

C	[REDACTED]	\$183.87	
	[REDACTED]	282.38	
	[REDACTED]	249.73	
	[REDACTED]	264.60	
	[REDACTED]	360.17	
	[REDACTED]	<u>139.11</u>	1,869.26

Special Chemicals:

B	[REDACTED]	6,280.00	
	[REDACTED]	2,326.21	
	[REDACTED]	270.80	
	[REDACTED]	517.40	
	[REDACTED]	<u>100.00</u>	9,894.41

Supplies:

B	[REDACTED]	1,633.83	
	[REDACTED]	211.00	
	[REDACTED]	722.02	
	[REDACTED]	131.76	
	[REDACTED]	<u>85.06</u>	2,603.67

Total

\$ 100,013.27

[REDACTED]

D

[REDACTED]

A

64-54

WV

Project: MKU-CRA, Subproject 45

Date Initiated: March 1955

Date Expires: February 1962

Funds-current year: \$40,000.00

Purpose: To provide funds for consultative and out-out services in the medical field as well as to conduct research on the synthesis, pharmacodynamic analysis and clinical trial of new chemical agents.

Status: Several new memory techniques are being tested in relation to chemical agents which stimulate the stress reaction in human beings.

WV

[REDACTED]

B

FINANCIAL REPORT

INV 21 February 1, 1962 to January 31, 1963

FUNDS RECEIVED		\$40,000.00
Grants In Aid	[REDACTED]	\$49,000.00

B

[REDACTED]

C

I have examined and certified the submitted expenditures.

[REDACTED]

A

Special Agent in Charge
FBI/Chemical Division

Dated 4/20/63

45-47

[REDACTED]

B

FINANCIAL REPORT

INV 20
INV 19

February 1, 1961 to January 31, 1962

FUNDS RECEIVED		\$40,000.00
Grants In Aid	[REDACTED]	\$41,000.00

B

[REDACTED]

I have examined and approved the enclosed report.

[REDACTED]

TEC/Chemical Divis

Date: 2/20/62

45-48

M

Date 23 July 1962

Branch RB Category Chemical and Physical Manipulants (V-b)

Project Title Knockout Materials Item Classification Through Secret

Project Crypto MIKULTRA Crypto Classification None

Branch Project No. R-102 Project Engineer [Redacted]

Contractor [Redacted] *B*

Contract No. MIKULTRA #45 Task No. None

Type of Contract R&D Date Initiated February 1962

Cost \$40,000.00 Completion Date February 1963

Purpose: **This project involves the production and preliminary testing of materials which affect the "awareness" of human beings. The goal is a good "Mickey Finn."**

Status: **This project has been delayed by the loss of ~~MIKULTRA #45~~. However, isolation and preliminary testing of a promising material first located by him are being carried out and preliminary feasibility should be established approximately on schedule.** *C*

M

M
Automatic
downgrading and
declassification

B *E* [REDACTED] *Oct 12 1961 No.* 2293 *E*

Pay B to the order of [REDACTED] *\$26,000⁰⁰*

Twenty six thousand dollars and $\frac{00}{100}$ Dollars

E **RESEARCH GRANT** *E* **AUTHORIZED SIGNATURE** *E*

STYLE 7

B *E* [REDACTED] *April 27 1961 No.* 2179 *E*

Pay B to the order of [REDACTED] *\$25,000⁰⁰*

Twenty five thousand dollars and $\frac{00}{100}$ Dollars

E **N.P.** *E* **AUTHORIZED SIGNATURE** *E*

STYLE 7

45-50

RECEIPT

Receipt is hereby acknowledged of the following:

Cashier's Check No. OSC 578 in the amount of \$40,000, dated
February 28, 1962, drawn on [REDACTED]

E [REDACTED], payable to [REDACTED] B

[REDACTED]

Date: [REDACTED] 3/7/62

C

[Handwritten signature]

13 February 1962

MEMORANDUM FOR: CHIEF, FINANCE DIVISION

VIA : TSD/Budget Officer

SUBJECT : MKULTRA, Subproject 45, Invoice #21, Allotment 2125-1390-3902

1. Invoice No. 21 is attached covering the above subproject. Payment should be made as follows:

Cashier's check in the amount of \$40,000.00 drawn on a [redacted] bank, payable to [redacted] *E B*

2. The check should be forwarded to Chief, TSD/Research Branch, through TSD/Budget Officer as soon as possible.

3. This is a final invoice. However, since it is anticipated that additional funds will be obligated for this project the files should not be closed.

E [redacted] *E*
CHECK # [redacted] IN THE AMOUNT OF \$ 40,000.00.
RECEIVED [redacted]

A [redacted] *7 Mar '62*

[redacted] *A*
Chief
TSD/Research Branch

Attachment:
Invoice & Certifications

Distribution:
Orig & 2 - Addressee
1 - TSD/FASS
2 - TSD/RB

I CERTIFY THAT FUNDS ARE AVAILABLE:
OBLIGATION REFERENCE NO. 614
CHANGE TO ALLOTMENT NO. 2125-1390-3902

AUTHORIZING OFFICER

A TSD/RB/[redacted] (13 Feb 62)

[Handwritten signature]

45-51

~~SECRET~~

13 February 1962

INVOICE

For Services

~~\$40,000.00~~

[REDACTED]

B

CERTIFICATIONS

(1) It is hereby certified that this is invoice 21 applying to Sub-project No. 45 of MKULTRA, that performance is satisfactory, that services are being accomplished in accordance with mutual agreements, that a detailed agenda of the payments and receipts is on file in TSD/RB, that this bill is just and correct and that payment thereof has not yet been made.

Chief, TSD/Research Branch

Date: 13 February 1962

(2) It is hereby certified that this invoice applies to Subproject 45 of MKULTRA which was duly approved, and that the project is being carried out in accordance with the memorandum of 13 April 1961 from the DCI to the DD/A, and the extension of this authority in subsequent memoranda.

Research Director

Date: _____

~~SECRET~~

6 February 1962

MEMORANDUM FOR: THE RECORD

SUBJECT : Continuation of MKULTRA, Subproject No. 45

1. The scope of this subproject includes all those activities now engaged in by [REDACTED] under the direction of TSD/RB with the exception of those cutout functions specifically mentioned in connection with other MKULTRA subprojects. In general, the research effort under this subproject will continue along the lines laid down in previous years. These involve the synthesis and pharmacological and clinical evaluation of compounds of those chemical families known to have application in the psychochemical and "K" fields. During the coming year it is planned to concentrate more directly on the more practical aspects of the "knockout" problem. Enough new potent substances have become available lately to make such a change in emphasis worthwhile. In connection with this change it should be noted that certain findings made in [REDACTED] project at [REDACTED] which cannot be further exploited at that facility will be pursued at [REDACTED] in the future. For this reason it may be necessary to supplement the findings of this subproject from time to time during the year due to increases of scope.

B

C

B

2. [REDACTED] also serves as a general consultant to the Agency, provides services of a sensitive nature on an ad hoc basis, and serves as a cutout in procurement problems.

C

Downgraded to: CONFIDENTIAL
by Authority of: 187475
date: June 1977

E2 IMPDET; CL BY 187475

3. The total cost of this project for a period of one year will not exceed \$40,000.00. Charges should be made against Allotment 2125-1390-3902.

e 4. [redacted] has been requested to submit a summary accounting or a copy of the Fund's annual audit report for the sponsor's inspection. Also, it has been requested that any unexpended funds shall be returned to the Agency.

5. Title to any permanent equipment purchased by funds granted e [redacted] shall be retained by [redacted] B
B [redacted] in lieu of higher overhead rates.

6. It was mutually agreed that documentation and accounting for travel expenses which are normally reimbursable by [redacted] B shall conform with the accepted practices of the Fund.

[redacted] A
Chief
TSD/Research Branch

APPROVED FOR OBLIGATION OF FUNDS:

[redacted] A

Research Director

Date _____

Attachment: Proposal and Budget

Distribution: Original only

Downgraded to: CONFIDENTIAL
by Authority of: 187475
date: June 1977
E2 IMPDET; CL BY 187475

[Handwritten signature]

45-57
B

PROPOSAL 1962

It is proposed to continue exploration and pilot work along lines which have been developed in the investigations of the past few years in cooperation with other projects of interest to the Sponsor. The primary field of work involves the effects of stress on human beings. Major items of interest presently involve the following areas:

(a) Creation of reliable research "tools" for study of stress phenomena in animals and man with the end in view of understanding these phenomena to the extent that practical applications can be realized in interpreting and controlling human behavior.

(b) The production and study of new chemical and physical agents of significance in connection with the stress reactions.

(c) The allied investigation of chemical and physical agents related to the "state of awareness" of human beings. The particular interest in this relationship is to obtain and define a separation between general activation or depression of the whole animal and the very specific "perceptual" depression or activation desirable from the psychologists' point of view.

A reasonable amount of progress is being made in the several areas indicated above and it is expected that continued efforts of the sort which have proved efficacious in the past year will yield further significant results.

WARNING NOTICE
SENSITIVE INTELLIGENCE
SOURCES AND METHODS INVOLVED

45-50



B

BUDGET 1962

Salaries	\$ 30,500.00
Chemical Supplies	2,000.00
Experimental Animals and Subjects	5,000.00
Clerical Support	<u>2,500.00</u>
TOTAL	\$ 40,000.00

WARNING NOTICE
SENSITIVE INTELLIGENCE
SOURCES AND METHODS INVOLVED

SECRET

Date: 9 October 1961

MEMORANDUM FOR: THE COMPTROLLER

ATTENTION : Finance Division

SUBJECT : MKULTRA, Subproject 45

Under the authority granted in the memorandum dated 13 April 1953 from the DCI to the DD/A, and the extension of this authority in subsequent memoranda, Subproject 45 has been approved, and 20,000.00 of the over-all Project MKULTRA funds have been obligated to cover the subproject's expenses and should be charged to cost center 2125-1390-3903.


Chief
TSD/Research Branch

A

APPROVED FOR OBLIGATION
OF FUNDS:

Research Director

I CERTIFY THAT FUNDS ARE AVAILABLE.
OBLIGATION REFERENCE NO. 614
CHARGE TO ALLOTMENT NO. _____

ALLOTMENT NUMBER

Date: _____

Distribution:
Original & 2 - Addressee
1 - TSD/FASS
2 - TSD/RB

SECRET

SECRET

95-56
Date: 8 February 1962

MEMORANDUM FOR: THE COMPTROLLER

ATTENTION : Finance Division

SUBJECT : MKULTRA, Subproject 45
Allotment # 2125-1390-3902

Under the authority granted in the memorandum dated 13 April 1953 from the DCI to the DD/A, and the extension of this authority in subsequent memoranda, Subproject 45 has been approved, and \$40,000.00 of the over-all Project MKULTRA funds have been obligated to cover the subproject's expenses and should be charged to cost center 2125-1390-3902.

A 
Chief
TSD/Research Branch

APPROVED FOR OBLIGATION
OF FUNDS:

A 
Research Director

Date: 1 FEB 62

Distribution:

Original & 2 - Addressee

X - TSD/PASS

2 - TSD/RB

I CERTIFY THAT FUNDS ARE AVAILABLE
OBLIGATION REFERENCE NO. _____
SPACE TO ALLOTMENT NO. _____

AUTHORIZING OFFICER

SECRET

RECEIPT

Receipt is hereby acknowledged of the following:

Treasurer's Check No. 186234 in the amount of \$20,000, dated 11 October 1961, drawn on [REDACTED] E

E
B

[REDACTED] payable to [REDACTED] B

C

[REDACTED]

Date; Oct 11, 1961

Downgraded to: CONFIDENTIAL
by authority of: 187475
Date: June 1977

E2 IMPDET; CR BY 187475

2. [redacted] also serves as a general consultant to the Agency, provides services of a sensitive nature on an ad hoc basis, and serves as a cutout in procurement problems.

3. The total cost of this project for a period of one year will not exceed \$40,000.00. (However, at the present time the project will only be extended for a period of ^{SIX} ~~three~~ months. The cost of this project for this period will not exceed \$20,000.00.) Charges should be made against Allotment 1125-1390-3902. (It is anticipated that the remainder of the funds for the project year will be made available from FY-62 money when available.)

4. [redacted] has been requested to submit a summary accounting or a copy of [redacted] annual audit report for the sponsor's inspection. Also, it has been requested that any unexpended funds shall be returned to the Agency.

5. Title to any permanent equipment purchased by funds granted

[redacted] shall be retained by [redacted] in lieu of higher overhead rates.

6. It was mutually agreed that documentation and accounting for travel expenses which are normally reimbursable by [redacted] shall conform with the accepted practices of [redacted]

APPROVED FOR OBLIGATION OF FUNDS:

[redacted]
Research Director

Date _____

[redacted]
Chief
TSD/Research Branch

APPROVED FOR ADDITIONAL OBLIGATION OF FUNDS: (\$20,000.00 against Allotment 2125-1390-3902)

[redacted]
Research Director

Date _____

Downgraded to: CONFIDENTIAL
by authority of: 187475
Date: June 1977
E2 IMPDET; CR BY 187475

PROPOSAL 1961

It is proposed to continue exploration and pilot work along lines which have been developed in the investigations of the past few years in cooperation with other projects of interest to the Sponsor. The primary field of work involves the effects of stress on human beings. Major items of interest presently involve the following areas:

- a) Creation of reliable research "tools" for study of stress phenomena in animals and man with the end in view of understanding these phenomena to the extent that practical applications can be realized in interpreting and controlling human behavior.
- b) The production and study of new chemical and physical agents of significance in connection with the stress reactions.
- c) The allied investigation of chemical and physical agents related to the "state of awareness" of human beings. The particular interest in this relationship is to obtain and define a separation between general activation or depression of the whole animal and the very specific "perceptual" depression or activation desirable from the psychologists' point of view.

A reasonable amount of progress is being made in the several areas indicated above and it is expected that continued efforts of the sort which have proved efficacious in the past year will yield further significant results.

As indicated in the attached budget, the total research effort will amount to \$71,500.00. We are requesting that the present Sponsor fund only \$40,000.00 of this effort with the remainder to be provided from private sources.

• a [REDACTED]

WARNING NOTICE
SENSITIVE INTELLIGENCE
SOURCES AND METHODS INVOLVED

RESEARCH PROPOSAL 1961

BUDGET

1. PHARMACOLOGY AND TOXICOLOGY

Pharmacologist and technician \$12,000.00

C [REDACTED] \$10,000.00

Animal caretaker, animals & animal maintenance \$12,000.00

\$34,000.00

2. CLINICAL SCREENING

Clinical assistance \$12,000.00

Clerical help and supplies \$5,000.00

\$17,000.00

3. CHEMICAL SYNTHESIS

S [REDACTED] Consultant \$1,500.00

C [REDACTED] \$5,000.00

C [REDACTED] \$10,000.00

\$16,500.00

Chemical Supplies \$4,000.00

\$4,000.00

TOTAL

\$71,500.00

WARNING NOTICE
SENSITIVE INTELLIGENCE
SOURCES AND METHODS INVOLVED

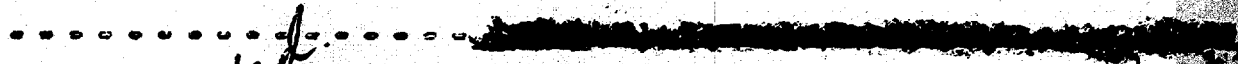
SECRET

INVOICE

For Services

5 October 1961

20,000.00



*Forwarded
9 Oct 61*

CERTIFICATIONS

(1) It is hereby certified that this is invoice 20 applying to Sub-project No. 45 of MKULTRA, that performance is satisfactory, that services are being accomplished in accordance with mutual agreements, that a detailed agenda of the payments and receipts is on file in TSD/RB, that this bill is just and correct and that payment thereof has not yet been made.

Chief, TSD/Research Branch

Date: _____

(2) It is hereby certified that this invoice applies to Subproject 45 of MKULTRA which was duly approved, and that the project is being carried out in accordance with the memorandum of 13 April 1953 from the DCI to the DD/A, and the extension of this authority in subsequent memoranda.

Research Director

Date: _____

S E C R E T

Date: 3 October 1961

MEMORANDUM FOR: THE COMPTROLLER
ATTENTION : Finance Division
SUBJECT : MKULTRA, Subproject 65

Under the authority granted in the memorandum dated 13 April 1953 from the DCI to the DD/A, and the extension of this authority in subsequent memoranda, Subproject 65 has been approved, and 30,000.00 of the over-all Project MKULTRA funds have been obligated to cover the subproject's expenses and should be charged to cost center 2125-1370-3702.

~~XXXXXXXXXXXXXXXXXXXX~~
~~XXXXXXXXXXXXXXXXXXXX~~
A
TSD/Research Branch

APPROVED FOR OBLIGATION OF FUNDS:

Research Director

Date: _____

- Distribution:**
Original & 2 - Addressee
1 - TSD/FASS
2 - TSD/RB

S E C R E T

45-63

#45

RECEIPT

Receipt is hereby acknowledged of the following:

Check ^E [redacted] in the amount of \$20,000, dated
14 April 1961, drawn on the [redacted] ^E
[redacted], payable to the [redacted] ^B

[redacted signature] ^C
Date 4/17/61

45-65

SECRET

DATE: 31 March 1961

MEMORANDUM FOR : THE COMPTROLLER
ATTENTION : Finance Division
SUBJECT : MKULTRA, Subproject 45

Under the authority granted in the memorandum dated 13 April 1953 from the DCI to the DD/A, and the extension of this authority in subsequent memoranda, Subproject 45 has been approved, and \$20,000.00 of the over-all Project MKULTRA funds have been obligated to cover the subproject's expenses and should be charged to cost center 1125-1390-3902.

~~XXXXXXXXXX~~ A
Chief
TSD/Research Branch

APPROVED FOR OBLIGATION OF FUNDS:

~~XXXXXXXXXX~~ A
Research Director

I CERTIFY THAT FUNDS ARE AVAILABLE.
OBLIGATION REFERENCE NO. 1821
CHARGE TO ALLOTMENT NO. _____

6 APR 1961

AUTHORIZING OFFICER

Date:

Distribution:

Orig. & 2 - Addressee

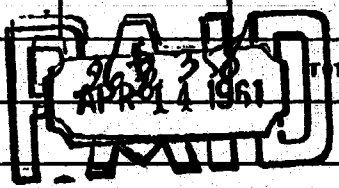
SECRET

(when filled in)

75-66

CONFIDENTIAL FUNDS POSTING VOUCHER

VOUCHER NO. 7-12			DATE 2-6					VOUCHER NO. 7-12					
DESCRIPTION-ALL OTHER ACCOUNTS 13-33		28-33 T/A NO.	34-39 STATION CODE	40-42 EXPEND CODE	43 F U N D S	45-46 PAY PER. LIO. CODE	47-52 OBLIG. REF. NO. ADVANCE ACCT. NO. EMP. NO.	53 CA YR	54-57 GENERAL LEDGER ACCT. NO.	58-67 ALLOT. OR COST ACCT. NO. 62-67 CH. NO. X REF. NO.	68-70 DUE DATE OBJECT CLASS	71-80 AMOUNT DEBIT CREDIT	
SUBPROJ. 45 INV		19		8811			1821	6010	25-1390-3902	752	20,000.00		
MKULTRA							108	-1102		267		20,000.00	
EXPLANATION OF ENTRY.													
										TOTALS	20,000.00	20,000.00	
<i>see attached</i>													



DATE 4/12/61	PREPARED BY <i>[Redacted]</i>	DATE A	REVIEWED BY	CERTIFIED FOR PAYMENT OR CREDIT	
				DATE	SIGNATURE OF CERTIFYING OFFICER

45-67

SECRET

DATE: 31 March 1961

MEMORANDUM FOR : THE COMPTROLLER
ATTENTION : Finance Division
SUBJECT : MKULERA, Subproject 45

Under the authority granted in the memorandum dated 13 April 1953 from the DCI to the DD/A, and the extension of this authority in subsequent memoranda, Subproject 45 has been approved, and \$2,000.00 of the over-all Project MKULERA funds have been obligated to cover the subproject's expenses and should be charged to cost center 1125-1390-3902.

~~XXXXXXXXXXXXXXXXXXXX~~ *[Signature]*
Chief
TSD/Research Branch

APPROVED FOR OBLIGATION
OF FUNDS:

~~XXXXXXXXXXXXXXXXXXXX~~ *[Signature]*

3 APR 1961

Research Director

Date:

Distribution:
Orig. & 2 - Addressee

4347

SECRET

45-68

SECRET

7 April 1961

MEMORANDUM FOR: CHIEF, FINANCE DIVISION

VIA : TSD/Budget Officer

SUBJECT : NEULTRA, Subproject 45, Invoice No. 19
Allotment 1125-1390-3902

1. Invoice No. 19 covering the above subproject is attached. Payment should be made as follows:

Cashier's check in the amount of \$20,000.00 drawn on a local bank.

The check should be made payable to the ~~████████████████████~~ **B**

2. The check should be forwarded to Chief, TSD/Research Branch, through TSD/Budget Officer, no later than Thursday, 13 April 1961.

3. This is a final invoice. However, since it is anticipated that additional funds will be obligated for this project the files should not be closed.

~~████████████████████~~ **A**
Chief
TSD/Research Branch

Attachment:
Invoice & Certifications

Distribution:
Orig & 2 - Addressee
1 - TSD/FASB
2 - TSD/RB

TSD/RB/~~██████████~~ (7 April 1961)

CHECK # 265558 IN THE AMOUNT OF \$20,000.
RECEIVED
~~████████████████████~~

SECRET

OFFICE

For Services

\$20,000.00

B

(1) It is hereby certified that this is Invoice 19 applying to sub-project 20. 15 of MOCIRA, that performance is satisfactory, that services are being accomplished in accordance with verbal agreements, that a detailed report of the payments and receipts is on file in the file, that this bill is for and correct and that payments therefor has not yet been made.

DATE: 7 April 1961

Date: 7 April 1961

(2) It is hereby certified that this invoice applies to Subproject of MOCIRA which was duly approved, and that the project is being carried out in accordance with the memorandum of 13 April 1959 from the DIT to the DD/A, and the extension of this authority in subsequent memoranda.

DATE: _____

Date: _____

SECRET

45-69

SECRET

DATE: 31 March 1961

MEMORANDUM FOR : THE COMPTROLLER
ATTENTION : Finance Division
SUBJECT : MKULTRA, Subproject 45

Under the authority granted in the memorandum dated 13 April 1953 from the DCI to the DD/A, and the extension of this authority in subsequent memoranda, Subproject 45 has been approved, and \$20,000.00 of the over-all Project MKULTRA funds have been obligated to cover the subproject's expenses and should be charged to cost center 1125-1390-3902.

~~_____~~
Chief
TSD/Research Branch

APPROVED FOR OBLIGATION
OF FUNDS:

Research Director

Date:

Distribution:
Orig. & 2 - Addressees

SECRET

B
[Redacted]

FINANCIAL REPORT JANUARY 31, 1960 - FEBRUARY 1, 1961

SALARIES		\$16,646.95
SUPPLIES & MATERIALS		\$7,312.76
GRANTS IN AID		
B: [Redacted]	\$33,600.00	
[Redacted]	\$12,433.87	
[Redacted]	,733.33	
		<u>\$47,767.20</u>
TOTAL		\$71,726.91

I certify to the best of my knowledge that this statement is correct.

[Redacted Signature]

Date 10/20/61

4 Jan 1960	23833	Jan	16
13 Apr "	23833	"	17
11 Aug 1960	23834	"	18
	<u>71500</u>		

I have examined and approved the submitted expenditures...

[Redacted Signature] **A**
[Redacted Title]
TSS/Chemical Division

Date: 10/20/61

11-54
D R

RECEIPT

Receipt is hereby acknowledged of the following:

E - [REDACTED] No. 043215 in the amount of \$23,834.00 E

drawn on [REDACTED], payable

to the [REDACTED] - B

[REDACTED] - C

Date 8/26/60

[SECRET]

45-72

11 August 1960

MEMORANDUM FOR: CHIEF, FINANCE DIVISION

VIA : TSD/Budget Officer

SUBJECT : MUKITA, Subproject 45, Invoice No. 18
Allotment 0525-1009-4902

1. Invoice No. 18 covering the above subproject is attached. Payment should be made as follows:

Cashier's check in the amount of \$23,834.00 drawn on a ██████████ bank.

The check should be made payable to the ██████████ *B*

2. The check should be forwarded to Chief, TSD/Research Branch, through TSD/Budget Officer, no later than Thursday, 25 August 1960.

3. This is a final invoice. However, since it is anticipated that additional funds will be obligated for this project the files should not be closed.

██████████ *A*
Chief
TSD/Research Branch

Attachment:
Invoice & Certifications

Distribution:
Orig & 2 - Addresses
1 - TSD/FASB

I CERTIFY THAT FUNDS ARE AVAILABLE
OBLIGATION REFERENCE No. 1296
CHARGE TO ALLOTMENT No. 0525-1009-4902

16 AUG 1960

AUTHORIZING OFFICER

██████████ *E*

25 AUG 1960 CHECK# _____ IN THE AMOUNT OF \$23,834.00 RECEIVED.

██████████ *C*

[SECRET]

45-74

RECEIPT

Acknowledged herewith receipt of the following check:

Official Check No. ^E [redacted] dated April 21, 1960, in the amount

of ^E [redacted] drawn on ^E [redacted]

payable to ^B [redacted]

[redacted]

Date: _____

SECRET

45-75

13 April 1960

MEMORANDUM FOR: CHIEF, FINANCE DIVISION

VIA : TSD/Budget Officer

SUBJECT : MKULTRA, Subproject 45, Invoice No. 17
Allotment 0525-1009-4902

1. Invoice No. 17 covering the above subproject is attached. Other invoices will follow. Payment should be made as follows:

Cashier's check in the amount of \$23,833.00 drawn on a [redacted] bank. E

The check should be made payable to the [redacted] B

2. The check should be forwarded to Chief, TSD/Chemical Branch, through TSD/Budget Officer, no later than 27 April 1960.

[redacted] A
Chief
TSD/Chemical Branch

Attachment:
Invoice & Certifications

Distribution:
Orig & 2 - Addressee

- 1 - TSD/FASS
- 2 - TSD/CB

TSD/EB/[redacted] A

I CERTIFY THAT FUNDS ARE AVAILABLE
OBLIGATION REFERENCE NO. 1298
CHARGE TO ALLOTMENT NO. _____
ADMINISTRATING OFFICER

15 APR 1960

CHECK [redacted] B
IN THE AMOUNT OF \$23,833.00
RECEIVED.

[redacted] A

SECRET

45-75
SECRET

INVOICE

For Services

\$23,833.00



B

CERTIFICATIONS

(1) It is hereby certified that this is Invoice No. 17 applying to Subproject 45 of MKULTRA, that performance is satisfactory, that services are being accomplished in accordance with mutual agreements, that a detailed agenda of the payments and receipts is on file in TSD/CB, that this bill is just and correct and that payment thereof has not yet been made.

G/TSD/Chemical Branch

Date: _____

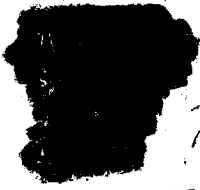
(2) It is hereby certified that this invoice applies to Subproject 45 of MKULTRA which was duly approved, and that the project is being carried out in accordance with the memorandum dated 13 April 1953 from the DCI to the DD/A, and the extension of this authority in subsequent memoranda.

Research Director

Date: _____

SECRET

45-76



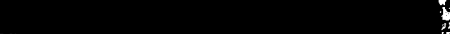


B

Fund

RECEIPT

Acknowledged herewith receipt of the following check:

 Check No. G38925, dated 13 January 1960, in the amount of \$23,833.00, drawn on The , payable to 



DATE 1/20/60

45-77

SECRET

4 January 1960

MEMORANDUM FOR: CHIEF, FINANCE DIVISION

VIA : TSS/Budget Officer

**SUBJECT : MKULTRA, Subproject 45, Invoice No. 16
Allotment 0525-1009-4902**

1. Invoice No. 16 covering the above subproject is attached. Other invoices will follow. Payment should be made as follows:

Cashier's check in the amount of \$23,833.00 drawn on a ~~XXXXXXXXXXXX~~

The check should be made payable to the ~~XXXXXXXXXXXX~~

2. The check should be forwarded to Chief, TSS/Chemical Division, through TSS/Budget Officer, no later than 18 January 1960.

**Chief
TSS/Chemical Division**

6 JAN 1960

**Attachment:
Invoice & Certifications**

I CERTIFY THAT FUNDS ARE AVAILABLE
OBLIGATION REFERENCE No. ~~XXXXXXXXXXXX~~
CHARGE TO ALLOTMENT NO. ~~XXXXXXXXXXXX~~

**Distribution:
Orig & 2 - Addressee**

AUTHORIZING OFFICER

- 1 - TSS/FASB
- 2 - TSS/CD

CHECK IN THE AMOUNT OF \$23,833.00 RECEIVED.

18 JAN 1960

SECRET

Downgraded to: CONFIDENTIAL
by authority of: 187475
date: June 1977

~~TOP SECRET~~
~~TOP SECRET~~

45-78

E2 IMPDET; CL BY 187475

29 December 1959

MEMORANDUM FOR: THE RECORD

SUBJECT : Continuation of MKULTRA, Subproject No. 45

1. The scope of this subproject includes all those activities now engaged in by ~~_____~~^B under the direction of TSS/CD^{TSD/R3} with the exception of those cutout functions specifically mentioned in connection with other MKULTRA subprojects. In general, the research effort under this subproject will continue along the lines laid down in previous years. These involve the synthesis and pharmacological and clinical evaluation of compounds of those chemical families known to have application in the psychochemical and "K" fields. During the past year important progress has been made in the area related to stressor compounds and the relationship of these materials to the physiological pathways through which both stress and the reaction to it are mediated in human beings. As is indicated in the attached proposal, the work of the past year has progressed to the point where more definitive experiments on the stress reaction can be carried out. Primarily this was brought about by the characterization of several new materials which produce stress reaction in humans and the application of some new clinical methods of measuring the extent of the disturbance produced. During the next year proportionally more effort will be expended on the problem of the development of new

~~TOP SECRET~~

Downgraded to: CONFIDENTIAL
by authority of: 187475
date: June 1977
E2 IMPDET; CL BY 187475

Downgraded to: CONFIDENTIAL
by authority of: 187475
date: June 1977

~~TOP SECRET~~
-2-

45-78

E2 IMPDET; CL BY 187475

"knock-out" types of agents since progress has been slower than is desirable in this direction and because a new approach to the problem has been worked out. //

2. ^C [redacted] also serves as a general consultant to the Agency, provides services of a sensitive nature on an ad hoc basis, and serves as a cut-out in procurement problems.

3. The total cost of this project for a period of one year will not exceed \$71,500.00. ^{40,500.00} Charges should be made against Allotment 0525-1009-4902.

4. ^C [redacted] has been requested to submit a summary accounting or a copy of the Fund's annual audit report for the sponsor's inspection. Also, it has been requested that any unexpended funds shall be returned to the Agency.

5. Title to any permanent equipment purchased by funds granted ^C [redacted] shall be retained by ^B [redacted], in lieu of higher overhead rates.

6. It was mutually agreed that documentation and accounting for travel expenses which are normally reimbursable by ^B [redacted] shall conform with the accepted practices of the Fund.

Downgraded to: CONFIDENTIAL
by authority of: 187475
date: June 1977

E2 IMPDET; CL BY 187475

~~TOP SECRET~~

Downgraded to: **CONFIDENTIAL**
by authority of: 187475
date: June 1977

~~TOP SECRET~~

45-78

-3-

E2 IMPDET; CL BY 187475

7. ^C [redacted] agreed to comply with the requirements of the Memorandum of Agreement.

^A
[redacted]
Chief
TSS/Chemical Division

APPROVED FOR OBLIGATION
OF FUNDS:

^A
[redacted]
Research Director

Date: 12/30/59

Attachment:
Proposal

Distribution:
Original only

Downgraded to: **CONFIDENTIAL**
by authority of: 187475
date: June 1977

E2 IMPDET; CL BY 187475

[redacted]

RESEARCH PROPOSAL

1960

The research to be undertaken during the twelve month period for which financial support is requested will be devoted to the continued analysis of the neural and endocrine mechanism of stress and the chemical agents that influence it. The screening procedures are based largely upon a further analysis of phases of stress and the influences of this physiologic behavior complex upon both body and skin temperatures as detailed in the accompanying report.

The chemical synthesis of new compounds will be continued B at the [redacted] under the supervision of [redacted] C and at the [redacted] under the supervision B of [redacted] C. These chemical agents will be screened for their capacity to provoke stress or to suppress the stress reaction in its acute or chronic phases. Animal testing will include pharmacologic screening and proper toxicity studies of these compounds as heretofore.

Chemical agents that have been found active and within a suitable toxicity range will be subjected to clinical screening on appropriate patients, the initial screening being carried out on advanced cancer patients. The amount of money devoted to chemical synthesis, however, has been further reduced. Chemical compounds available from biologic sources as well as those synthesized in the project will be screened, particularly those that are active in either raising or lowering body temperature.

As heretofore any agents which prove to be of interest in cancer will be subjected to further evaluation both on transplanted

SENSITIVE INTELLIGENCE
WARNING NOTICE

Page 2

animal tumors and on cancer patients. This cancer phase of the project will be considered a by-product of the major objective, which will be directed to the problem of stress.

WARNING NOTICE

SENSITIVE INTELLIGENCE -
SOURCES AND METHODS INVOLVED

RESEARCH PROPOSAL

1960

1- PHARMACOLOGY AND TOXICOLOGY

Pharmacologist and technician \$12,000.00

~~_____~~ C toxicology 10,000.00

Animal caretaker, animals and animal maintenance 12,000.00 \$34,000.00

2- CLINICAL SCREENING

Clinical assistants \$12,000.00

Clerical help and supplies 5,000.00 \$17,000.00

3- CHEMICAL SYNTHESIS

~~_____~~ C Consultant B \$1,500.00

~~_____~~ C ~~_____~~ B 5,000.00

~~_____~~ C ~~_____~~ B 10,000.00 \$16,500.00

Chemical supplies 4,000.00 \$20,500.00

TOTAL \$71,500.00

WARNING NOTICE
SENSITIVE INTELLIGENCE
SOURCES AND METHODS INVOLVED

45-80

SECRET

29 December 1959

MEMORANDUM FOR: COMPTROLLER
ATTENTION : Finance Division
SUBJECT : MKULTRA, Subproject 45, Additional Authorization No. 9

Under the authority granted in the memorandum dated 13 April 1953, from the DCI to the DD/A and the extension of this authority in subsequent memoranda, Subproject 45 was previously approved. Under the same authority an additional sum of \$71,500.00 has been authorized to cover the subproject's expenses, to be charged to Allotment ~~XXXXXXXXXX~~.

~~XXXXXXXXXX~~ **A**
Chief
TSS/Chemical Division

APPROVED FOR OBLIGATION OF FUNDS:

I CERTIFY THAT FUNDS ARE AVAILABLE;
 OBLIGATION REFERENCE No. ~~XXXXXXXXXX~~
 CHARGE TO ALLOTMENT No. ~~XXXXXXXXXX~~

 AUTHORIZING OFFICER

Original signed by
~~XXXXXXXXXX~~ **A**

Research Director

Date: 30 DEC 1959

Distribution:
 Orig & 2 - Addressee

- 1 - TSS/OC
- 1 - TSS/FASB
- 2 - TSS/CD **A**

TSS/CD: ~~XXXXXXXXXX~~ (29Dec59)

SECRET

SECRET

45-81

21 August 1959

MEMORANDUM FOR: CHIEF, FINANCE DIVISION

VIA : TSS/Budget Officer

SUBJECT : MKULTRA, Subproject 45, Invoice No. 15
Allotment 9-2502-75-902

1. Invoice No. 15 covering the above subproject is attached. Payment should be made as follows:

Cashier's check in the amount of \$3,760.00,
drawn on a ██████████ bank.

The check should be made payable to the ██████████ B

2. Please forward the check to Chief, TSS/Chemical Division, through TSS Budget Officer, no later than 3 September 1959.

3. This is a final invoice. However, since it is anticipated that additional funds will be obligated for this project the files should not be closed.

██████████ A
Chief
TSS/Chemical Division

Attachment:
Invoice & Certifications

Distribution:
Orig & 2 - Addressee

1 - TSS/FASB

2 - TSS/CD

TSS/CD/██████████ A

SECRET

45-81
SECRET

INVOICE

For services

\$3,760.00

CERTIFICATIONS

(1) It is hereby certified that this is Invoice No. [redacted] applying to Subproject 45 of MKULTRA, that performance [redacted] satisfactory, that services are being accomplished in accordance with mutual agreements, that a detailed agenda of the payments and receipts is on file in TSS/CD, that this bill is just and correct and that payment thereof has not yet been made.

Chief, TSS/Chemical Division

Date: _____

(2) It is hereby certified that this invoice applies to Subproject 45 of MKULTRA which was duly approved, and that the project is being carried out in accordance with the memorandum dated 13 April 1953 from the DCI to the DD/A, and the extension of this authority in subsequent memoranda.

Research Director

Date: _____

SECRET

SECRET

5 Jun 1959

MEMORANDUM FOR: THE COMPTROLLER
ATTENTION: Finance Division
SUBJECT: MULLHA, Subproject 45, Additional Authorization No. 8

Under the authority granted in the Memorandum dated 13 April 1958 from the DRI to the DD/A, and the extension of this authority in subsequent memoranda, Subproject 45 was previously approved. Under the same authority an additional sum of \$3,760.00 has been authorized to cover the subproject's expenses and should be charged to Allotment 9-2502-75-902.

Chief
TSS/Chemical Division

APPROVED FOR OBLIGATION OF FUNDS:

Research Director

Date: _____

Distribution:
Orig & 2 - Addressee

- 1 - TSS/OC
- 1 - TSS/PASB
- 2 - TSS/CD

SECRET

SECRET

TO: TSS/CD

This is an SPECIAL RESERVE TECHNOLOGY obligated funds.

1. Date of Obligation: January 59
2. Purpose of Project: Study of Stressor materials and the Stress Reaction.

3. Progress to Date: Satisfactory

4. Expiration Date: January 60

5. Project Director: Dr. [REDACTED] A

FROM: TSS/CD

Room B-10, West Outbuilding, Ext. 8500

SECRET

~~TOP SECRET~~
Downgraded to: CONFIDENTIAL
by authority of: 187475
date: June 1977

DRAFT

45-86

E2 IMPDET; CL BY 187475

5 June 1959

MEMORANDUM FOR THE RECORD

SUBJECT: Supplement to Project MKULTRA, Subproject 45

1. One of the activities that the [redacted] engages in on behalf of the Agency is the procurement of rare chemical substances required for the various chemical and physiological research programs being carried on in TSS/CD. Some of these materials are derived from direct synthetic programs under the direction of the Fund and others are purchased as such from domestic or foreign sources when the opportunity to do so appears.

B 2. The purpose of this supplement to Subproject 45 is to add the sum of \$3760.00 to allow the expansion of the above portion of the [redacted] activities during the remainder of this year. This additional work has been made necessary because of developments which have taken place in other parts of the research program being carried out by TSS/CD which have occurred since the original allotment for the [redacted] was made. B

B 3. All provisions of the original memorandum establishing the present grant to the [redacted] will apply to this supplement. The original allotment for Subproject 45 approved on 4 February 1959 was \$71,500.00. The amount of \$3760.00 (charges should be made against Allotment 9-2502-75-902) should be added to this to bring the total for this year to a total of \$75,260.00.

A [redacted]
Chief
TSS/Chemical Division

APPROVED FOR OBLIGATION OF FUNDS

A [redacted]
Research Director

Date

6/8/59

Attachment:

Orig. Memo. Only
Budget

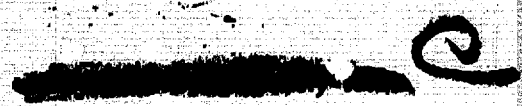
Downgraded to: CONFIDENTIAL
by authority of: 187475
date: June 1977

~~TOP SECRET~~
E2 IMPDET; CL BY 187475

PROPOSED BUDGET

It is proposed to obtain certain substituted Indole compounds of types designated by the Sponsor from various synthetic programs being carried out in industrial facilities and to characterize these materials for the Sponsor's use in various physiological programs. It is estimated that the following budget will be required for six months:

Salaries.....	\$3,000.00
Travel.....	500.00
Supplies.....	260.00
Total	\$3,760.00



WARNING NOTICE
SENSITIVE INTELLIGENCE
SOURCES AND METHODS INVOLVED

18-56
45-87

RECEIPT

Acknowledge herewith receipt of the following check:

Treasurer's check # [REDACTED] dated June 17, 1959, in the
amount of \$35,750.00, drawn on [REDACTED]
[REDACTED], payable to [REDACTED]

[REDACTED]

Date 23 June 59

SECRET

45-88

11 June 1959

MEMORANDUM FOR: CHIEF, FINANCE DIVISION

VIA : TSS/Budget Officer

SUBJECT : MKULTRA, Subproject 45, Invoice No. 14
Allotment 9-2502-75-902

1. Invoice No. 14 covering the above subproject is attached.
Payment should be made as follows:

Cashier's check in the amount of \$35,750.00,
drawn on a ~~XXXXXXXXXX~~ E

The check should be made payable to the ~~XXXXXXXXXX~~ B

2. Please forward the check to Chief, TSS/Chemical Division,
through TSS Budget Officer, no later than 22 June 1959. Other
invoices will follow.

~~XXXXXXXXXX~~
Chief
TSS/Chemical Division

Attachments:
Invoice & Certifications

Distribution:
Orig & 2 - Addressee
1 - TSS/FASB

2 - TSS/CD
TSS/CD/ ~~XXXXXXXXXX~~ (11 June 59) A

SECRET

45-89

7745

RECEIPT

Acknowledged herewith receipt of the following check:

Cashier's Check No. UT 4641, dated February 16, 1959,
in the amount of \$35,750.00, drawn on [REDACTED] E
payable to [REDACTED]

B

[REDACTED]

Date: 2/24/59 ←

45-91-

INVOICE

For services

\$35,750.00

B. [REDACTED]

CERTIFICATIONS

(1) It is hereby certified that this is Invoice No. 13 applying to Subproject 45 of MEXULTRA, that performance is satisfactory, that services are being accomplished in accordance with mutual agreements, that a detailed agenda of the payments and receipt is on file in TBS/CD, that this bill is just and correct and that payment thereof has not yet been made.

Chief, TBS/Chemical Division

Date:

(2) It is hereby certified that this invoice applies to Subproject 45 of MEXULTRA which was duly approved, and that the project is being carried out in accordance with the memorandum dated 13 April 1953 from the DCI to the DD/A, and the extension of this authority in subsequent memoranda.

Research Director

Date:

45-93

SECRET

27 January 1959

MEMORANDUM FOR: CONTROLLER
ATTENTION: Finance Division
SUBJECT: MEHLER, Subproject 45, Additional Authorization No. 7

Under the authority granted in the memorandum dated 13 April 1953, from the DCI to the ED/A and the extension of this authority in subsequent memoranda, Subproject 45 was previously approved. Under the same authority an additional sum of \$71,500.00 has been authorized to cover the subproject's expenses, to be charged to Allotment 9-2502-75-902.

~~XXXXXXXXXXXX~~
 Chief
 TSS/Chemical Division

APPROVED FOR OBLIGATION OF FUNDS:

 Research Director
 Date: _____

Distribution:
 Orig & 2 - Addressee
 1 - TSS/OC
 1 - TSS/FASB
 2 - TSS/CD
 TSS/CD: ~~XXXXXXXX~~ (27Jan59)

A

SECRET

SECRET

TO: TSS/OC

This is an invoice against previously obligated funds.

1. Date of Obligation: 27 Jan 1959
2. Purpose of Project: Analysis of hypothalamic & endocrine mechanism of stress & chemical agents that modify it.

3. Progress to Date: Satisfactory

4. Expiration Date: 27 Jan 1960

5. Project Director: ~~XXXXXXXXXX~~ A

FROM: TSS/OC

Room 3-0, West Publishing, Inc. ~~XXXXXXXXXX~~ G

SECRET

Downgraded to: **CONFIDENTIAL**
by authority of: 137475
date: June 1977

E2 IMPDET; CL BY 187475

45-95
26 January 1959

MEMORANDUM FOR: THE RECORD

SUBJECT : Continuation of MKULTRA, Subproject No. 45

insert 2
1. The scope of this subproject includes all those activities now engaged in by the [REDACTED] **B**
under the direction of TSS/CD with the exception of those cutout functions specifically mentioned in connection with other MKULTRA subprojects. In general, the research effort under this subproject will continue along the lines laid down in previous years. These involve the synthesis and pharmacological and clinical evaluation of compounds of those chemical families known to have application in the psychochemical and "K" fields. During the past year important progress has been made in the area related to stressor compounds and the relationship of these materials to the physiological pathways through which both stress and the reaction to it are mediated in human beings. (In our Agency frame of reference, the fast adaptive reaction (nervous control) is of more vital importance than the slower humoral reaction (pituitary-adrenal axis). Since both of these pathways occur in the same individual, one of the major problems in doing research in this area has been the lack of knowledge of techniques allowing one to distinguish between the various types of observed phenomena. Progress made in this subproject on particular stressor agents and their relationships to known humoral agents for the first time permits the experimenter to make this distinction on a rational basis. As indicated in the attached proposal, this advantage will be pursued during the coming year with the following goals in mind:

- insert*
- (1) Development of materials & techniques for the production of maximum levels of physical and emotional stress in human beings.
 - (2) Development of materials and techniques which produce a maximum attenuation of stress in human beings once it has been produced.
 - (3) Development of new and more reproducible indicators of stress than those now in use in the Agency. The emphasis in this will be on those indicators which can be measured indirectly.
 - (4) Elucidation of the significant properties of the negative phase of stress in order that psychological techniques may be worked out in other projects to exploit this phase of the human reaction to potent emotional stress.

Downgraded to: **CONFIDENTIAL**
by authority of: 187475
date: June 1977

E2 IMPDET; CL BY 187475

Downgraded to: **CONFIDENTIAL**
by authority of: 187475
date: June 1977

45-95

E2 IMPDET; CL BY 187475

2. [redacted] also serves as a general consultant to the Agency, provides services of a sensitive nature on an ad hoc basis, and serves as a cut-out in procurement problems.

3. The total cost of this project for a period of one year will not exceed \$71,500. Charges should be made against Allotment 9-2502-75-902.

4. [redacted] has been requested to submit a summary accounting or a copy of the Fund's annual audit report for the sponsor's inspection. Also, it has been requested that any un-expended funds shall be returned to the Agency.

5. Title to any permanent equipment purchased by funds granted [redacted] shall be retained by the [redacted] in lieu of higher overhead rates.

6. It was mutually agreed that documentation and accounting for travel expenses which are normally reimbursable by the [redacted] shall conform with the accepted practices of the Fund.

7. [redacted] agreed to comply with the requirements of the Memorandum of Agreement.

[redacted signature]
Chief
TSS/Chemical Division

APPROVED FOR OBLIGATION OF FUNDS

[redacted signature]
Research Director

Date: July 4, 1977

Attachment:
Proposal
Original only

Downgraded to: **CONFIDENTIAL**
by authority of: 187475
date: June 1977

E2 IMPDET; CL BY 187475

The research to be undertaken during the next 12 months for which financial support is hereby requested will be devoted to the analysis of the hypothalamic and endocrine mechanism of stress and chemical agents that modify it. The investigations proposed are a direct continuation and outgrowth of those supported in the previous year.

The screening procedures to be used have been markedly widened in scope to embrace a consideration of both the metabolic and enzymatic effects of stress or of the chemical agents studied.

A novel screening procedure which depends upon the survival time of animals maintained without food or water has been devised and has already been put to practical use in demonstrating the role of the hypothalamus in survival. In addition to this over-all survival screening technic, screening technics have been devised for investigating separately the role of water and fat metabolism in stress.

It is proposed to continue work on the negative phase of stress which we have previously delineated by study of the egg white response in rats. (See research report for 1957 - 1958)

As an outgrowth of experiments performed in 1958 it is now possible to evaluate therapeutic agents at the enzymatic level. See research report enclosed. This technic of using a battery of enzyme systems in vitro as a method of evaluating the biological effectiveness of newly synthesized organic compounds opens up a whole new line of investigation and is the most rapid method of evaluation that has been devised to date and probably the most basic. It is proposed that we exploit this new approach to our utmost in the next twelve months.

The chemical synthesis of possibly active compounds will be continued at the [REDACTED] and the [REDACTED] and these chemical agents will be screened for their capacity to provoke stress or to suppress the stress reaction in its acute or chronic phases. The tests employed on animals will be used for screening and proper toxicity studies of the compounds will be carried out as heretofore.

WARNING NOTICE
SENSITIVE INTELLIGENCE
SOURCES AND METHODS INVOLVED

45-95

**RESEARCH PROPOSAL
1959 - 1960**

PHARMACOLOGY AND TOXICOLOGY

Pharmacologist and technician	<u>\$12,000.00</u>	
 toxicology	10,000.00	
Animal caretaker, animals and animal maintenance	<u>12,000.00</u>	\$34,000.00

CLINICAL SCREENING

Clinical assistants	10,000.00	
Clarial help and supplies	<u>5,000.00</u>	15,000.00

CHEMICAL SYNTHESIS

 , consultant	1,500.00	
 	5,000.00	
 	12,000.00	
Chemical supplies	<u>4,000.00</u>	<u>22,500.00</u>

TOTAL		\$ 71,500.00
-------	--	---------------------

WARNING NOTICE

**DEFENSIVE INTELLIGENCE
AND METHODS INVOLVED**

96-96

RECEIPT

Acknowledged herewith receipt of the following check:

Cashier's Check No. [redacted], dated September 30, 1958, ^E in the amount of \$21,733.34, drawn on [redacted] B payable to [redacted]

[redacted] C

Date: 6 Oct 58

45-97

450

8-3302-N-101

45

28 JAN 1958

Autograph # 6

65,200.10

65,210.10

30 JAN 1958

Invoice # 10

31,733.33

19,466.67

24 APR 1958

Invoice # 11

31,733.33

31,733.33

24 SEP 1958

Invoice # 12

31,733.33

24 SEP 1958

Lig
0

SECRET

45-98

22 September 1958

MEMORANDUM FOR: CHIEF, FINANCE DIVISION

VIA : TSS/Budget Officer

SUBJECT : MUIRA, Subproject 45, Invoice No. 12,
Allotment 8-2502-10-001

1. Invoice No. 12 covering the above subproject is attached. Payment should be made as follows:

Cashier's check in the amount of \$21,733.34,
drawn on a ~~Bank of America~~ ^E

The check should be made payable to the ~~Bank of America~~ ^B

2. Please forward the check to Chief, TSS/Chemical Division, through TSS/Budget Officer, no later than Monday, 6 October 1958.

3. This invoice represents the total amount currently authorized under Subproject 45. However, since it is anticipated that additional funds will be obligated for this project, the files should not be closed.

~~Signature~~ A
Chief
TSS/Chemical Division

Attachments: Invoice and Certifications CHECK ~~RECEIVED~~ THE AMOUNT OF \$21,733.34
RECEIVED 2 OCT 1958

Distribution: Orig & 2 - Addressee ~~Signature~~ A

~~Signature~~ H
17.2 21,733.34

21,733.34

RECEIVED
SECRET
~~Signature~~ H

INVOICE

For services

\$21,733.34

~~CONFIDENTIAL~~ B
~~CONFIDENTIAL~~

CERTIFICATIONS

(1) It is hereby certified that this is Invoice No. 12 applying to Subproject 45 of NEULTRA, that performance is satisfactory, that services are being accomplished in accordance with mutual agreements, that a detailed agenda of the payments and receipt is on file in TSS/100, that this bill is just and correct and that payment thereof has not yet been made.

Chief, TSS/Chemical Division

Date:

(2) It is hereby certified that this invoice applies to Subproject 45 of NEULTRA which was duly approved, and that the project is being carried out in accordance with the memorandum dated 13 April 1953 from the DCI to the DG/A, and the extension of this authority in subsequent memoranda.

Research Director

Date:

10

OD

RECEIPT

ss Acknowledged herewith receipt of the following check:

_____ Check No. 71601, dated April 30, 1958, in the amount of \$21,733.33, drawn on _____ payable to the _____

- E -
- B -

_____ 6 May 58

Date:

SEC

45-100

22 April 1958

MEMORANDUM FOR: CHIEF, FINANCE DIVISION

VIA : TSS/Budget Officer

SUBJECT : MULLER, Subproject 45, Invoice No. 11,
Allotment 8-2502-10-001

1. Invoice No. 11 covering the above subproject is attached.
Payment should be made as follows:

Cashier's check in the amount of \$21,733.33,
drawn on a ~~bank~~ bank.

The check should be made payable to the ~~treasury~~ ^E ~~treasury~~ ^B

2. Please forward the check to Chief, TSS/Chemical Division,
through TSS/Budget Officer, no later than Wednesday, 7 May 1958.

3. This invoice represents the total amount currently
authorized under Subproject 45. However, since it is anticipated
that additional funds will be obligated for this project, the
files should not be closed.

~~Signature~~
Chief
TSS/Chemical Division

Attachments:
Invoice and Certifications

DISTRIBUTION:
Orig & 2 - Addressee
1 - TSS/FASB
2 - TSS/CD

I CERTIFY THAT THE
OBLIGATION REFERENCE NO. 1450
CHARGE TO ALLOTMENT NO. 8-2502-10-001

AUTHORIZING OFFICER

~~Signature~~
CHECK # 2461 IN THE AMOUNT OF \$ 21,733.33
RECEIVED. 5 MAY 1958

~~Signature~~ ~~Signature~~

SECRET

INVOICE

For services

\$21,733.33



CERTIFICATIONS

(1) It is hereby certified that this is Invoice No. 11 applying to Subproject 45 of MULLTRA, that performance is satisfactory, that services are being accomplished in accordance with mutual agreements, that a detailed agenda of the payments and receipts is on file in TSS/CD, that this bill is just and correct and that payment thereof has not yet been made.

Chief, TSS/Chemical Division

Date:

(2) It is hereby certified that this invoice applies to Subproject 45 of MULLTRA which was duly approved, and that the project is being carried out in accordance with the memorandum dated 13 April 1953 from the DCI to the DD/A, and the extension of this authority in subsequent memoranda.

Research Director

Date:

45-101

SECRET

21 January 1958

MEMORANDUM FOR: COMPTROLLER
ATTENTION : Finance Division
SUBJECT : MURKIN, Subproject 45, Additional
 Authorization No. 6

Under the authority granted in the memorandum dated
 13 April 1953, from the DCI to the IS/A and the extension of this
 authority in subsequent memoranda, Subproject 45 was previously
 approved. Under the same authority an additional sum of \$65,200.00
 has been authorized to cover the subproject's expenses (thereby
 bringing to a total of \$65,200.00 funds obligated during FY 58),
 to be charged to Allotment 8-2502-10-001.

~~XXXXXXXXXX~~ - A
 Chief
 TSS/Chemical Division

APPROVED FOR OBLIGATION OF FUNDS

~~XXXXXXXXXX~~ - A

 Assistant Director

I CERTIFY THAT FUNDS ARE AVAILABLE
 OBLIGATION FISCAL YEAR 1958
 CHARGE TO ALLOTMENT 8-2502-10-001
 1450
 8-2502-10-001
 ADMINISTERING OFFICER

Date: _____

Distribution:
 Orig & 2 - Addressee

- 1 - TSS/OC
- 1 - TSS/FASB
- 1 - TSS/CD

TSS/CD: ~~XXXXXXXXXX~~ (21 January 1958)

SECRET

45-102

R E C E I P T

Acknowledged herewith receipt of the following check:

~~_____~~ Check No. ~~_____~~, dated February 7, 1958, in the
amount of \$21,733.33 drawn on the ~~_____~~
~~_____~~ payable to the ~~_____~~

-E
-B

~~_____~~

-C

Date: 20 Feb 58

Downgraded to: ~~CONFIDENTIAL~~
by: [redacted] 187475
Date: June 17, 1977
E2 IMPDET; CL BY 187475

45-104

DRAFT/ [redacted] A

21 January 1958

MEMORANDUM FOR: THE RECORD

SUBJECT : Continuation of MKULTRA, Subproject No. 45

B

1. The scope of this subproject includes all those activities now engaged in by [redacted] under the direction of TSS/CD with the exception of those cutout functions specifically mentioned in connection with other MKULTRA subprojects. In general, the research effort under this subproject will continue along the lines laid down in previous years. These involve the synthesis and pharmacological and clinical evaluation of compounds of those chemical families known to have application in the psychochemical and "K" fields. Clinical work in the "natural toxic psychoses" carried out last year indicates that, in general, the useful (reversible) phases of such psychoses are related to the presence of various chemical stressor materials in the circulation. These materials arise from faulty metabolic processes occasioned by the particular disease in question. Materials synthesised in the project are capable of reproducing the various clinical syndromes that are observed in the natural disease.

Shw
-C-

2. Knowledge of the nature of the important stressor compounds indicated above has allowed the design of an animal test which indicates relative potency, mode of action, etc., of these materials without the necessity of expensive and hazardous clinical testing in this area. During the coming year as indicated in the attached proposal from [redacted], a limited program of synthetic work and the attendant testing and screening will be carried out; but the major effort will be related to studies directly concerned with the production and control of the stress reaction in human beings. In line with the requested reduction of effort in biochemical research in TSS/CD, the funding of this project during the coming year has been reduced some 34% over last year.

OK C

3. [redacted] also serves as a general consultant to the Agency, provides services of a sensitive nature on an ad hoc basis, and serves as a cut-out in procurement problems.

\$71,500

4. The total cost of this project for a period of one year will not exceed \$67,200.00. Charges should be made against Allotment 8-2502-10-001.

9-2502-75-902

Downgraded to: ~~CONFIDENTIAL~~
by: [redacted] 187475
Date: [redacted]
E2 IMPDET; CL BY 187475

[redacted]

Downgraded to: CONFIDENTIAL

By authority of: 187475

Date: June 1977

45-104

DRAFT/

A

E2 IMPDET; CL BY 187475

C

5. [redacted] has been requested to submit a summary accounting or a copy of the Fund's annual audit report for the sponsor's inspection. Also, it has been requested that any unexpended funds shall be returned to the Agency.

B

6. Title to any permanent equipment purchased by funds granted [redacted] shall be retained by [redacted] in lieu of higher overhead rates.

B

B

7. It was mutually agreed that documentation and accounting for travel expenses which are normally reimbursable by [redacted] shall conform with the accepted practices of the Fund.

B

C

8. [redacted] agreed to comply with the requirements of the Memorandum of Agreement.

[redacted]

A

Chief
TSS/Chemical Division

APPROVED FOR OBLIGATION OF FUNDS:

[redacted]

A

Research Director

Date: June 27-1978

Attachment:
Proposal

Original only

Downgraded to: CONFIDENTIAL

By authority of: 187475

Date: June 1977

E2 IMPDET; CL BY 187475

45-104
ENDING NOTICE

SECRET INTELLIGENCE
AND METHODS INVOLVED

RESEARCH PROPOSAL
1958 - 1959

The research to be undertaken during the 12 months period for which financial support is requested will be devoted to an analysis of the neural and endocrine mechanism of stress and the chemical agents that influence it. The screening procedures are based largely upon the analysis of the General Adaptation Syndrome that has been worked out in rats during the past year, an outline of which is appended.

The chemical synthesis of possibly active compounds will be continued at the [REDACTED] and the [REDACTED] and these chemical agents will be screened for their capacity to provoke stress or to suppress the stress reaction in its acute or chronic phases. The tests employed on animals will be used for screening and proper toxicity studies of the compounds will be carried out as heretofore.

Chemical agents that have been found active and within a suitable toxicity range will be subjected to clinical screening on appropriate patients, the initial screening being carried out as heretofore on advanced cancer patients. The amount of money devoted to chemical synthesis will be much reduced and chemical compounds available from various sources as well as those synthesized in the project will be screened.

As heretofore any agents which prove of interest in cancer will be subjected to further evaluation both on transplanted animal tumors and on cancer patients. This cancer phase of the project.

will be considered a by-product of the major objective, which
will be directed to the problem of stress.

~~WARNING NOTICE~~
~~SENSITIVE INTELLIGENCE~~
~~SOURCE AND METHODS INVOLVED~~

PROPOSED BUDGET
1958 - 1959

1 - PHARMACOLOGY AND TOXICOLOGY

Pharmacologist and technician	\$ 12,000.00	
[REDACTED], toxicology	8,000.00	
[REDACTED] - Special screening procedures	1,200.00	
Animal caretaker, animals and animal maintenance	<u>12,000.00</u>	\$ 33,200.00

2 - CLINICAL SCREENING

Clinical assistants	9,500.00	
Clerical help and supplies	<u>5,000.00</u>	14,500.00

3 - CHEMICAL SYNTHESIS

[REDACTED], consultant	1,500.00	
[REDACTED]	5,000.00	
[REDACTED]	7,000.00	
Chemical Supplies	<u>4,000.00</u>	<u>17,500.00</u>

TOTAL		\$ 65,200.00
-------	--	--------------

45-105

Sub-45

R E C E I P T

Acknowledged herewith receipt of the following check:

Official check No. G20408, dated October 28, 1957, in the amount of \$33,333.33 drawn on the [REDACTED]

E [REDACTED], payable to

E
B

[REDACTED]
for [REDACTED] C
Date: 30 Oct. '57

17 October 1957

TSS

MEMORANDUM FOR: CHIEF, FINANCE DIVISION

VIA : TSS/Budget Officer

SUBJECT : MKULTRA Subproject 45, Invoice No. 9
Allotment 7-2502-10-001

1. Invoice No. 9 for the above subproject is attached.
Payment should be made as follows:

E Cashier's check in the amount of \$33,333.33, drawn
on a [redacted] bank.

B The check should be made payable to [redacted] B

2. Please forward the check to Acting Chief, TSS/
Chemical Division through TSS/Budget Officer by Thursday,
31 October 1957. Other invoices will follow.

[redacted]
Acting Chief
TSS/Chemical Division

A
MAR 15 1957

Attachments:
Invoice & Certifications

[redacted] E
CHECK 6/20/68 RECEIVED BY [redacted] 33,333

Distribution:
Orig & 2 - Addressee
1 - Comptroller

[redacted] A

29 Oct 57
No. 6001-2502-10-001-142- & 33,333.33
Es (INVNOE (INVOICE)) @ 33,333.33

1957 OCT 23 6 41 PM '57

CERTIFIED FOR PAYMENT OR CREDIT
10/21/57 [redacted] A
AUTHORIZED SIGNING OFFICER

~~SECRET~~
INVOICE

For services

\$33,333.33

CERTIFICATIONS

(1) It is hereby certified that this is Invoice No. 9 applying to Subproject No. 45 of MKULTRA, that performance has been satisfactory, that the services have been accomplished in accordance with mutual agreements, that a detailed agenda of the payments and receipts is on file in TSS/CD, that this bill is just and correct and that payment thereof has not yet been made.

Acting Chief, TSS/Chemical Division

Date:

(2) It is hereby certified that this invoice applies to Subproject 45 of MKULTRA which was duly approved, and that the project has been carried out in accordance with the memorandum dated 13 April 1953 from the DCI to the DD/A, and the extension of this authority in subsequent memoranda.



Research Director

Date:

W

RECEIPT

Acknowledged herewith receipt of the following check:

Official check No. 209-288152, dated May 14, 1957, in the amount of \$33,333.33, drawn on the  payable to 

Date: 70 May '57

801-108
45-108

~~SECRET~~

45-109
TSS

3 May 1957

MEMORANDUM FOR: CHIEF, FINANCE DIVISION

VIA: TSS/Budget Officer

SUBJECT: MKULTRA Subproject 45, Invoice No. 8
Allotment 7-2502-10-001

1. Invoice No. 8 for the above subproject is attached. Payment should be made as follows:

E Cashier's check in the amount of \$33,333.33, drawn on a ~~bank~~ bank.

B The check should be made payable to ~~_____~~ B

2. Please forward the check to Chief, TSS/Chemical Division through TSS/Budget Officer by Friday, 17 May 1957. Other invoices will follow.

SIDNEY GOTTLIEB
Chief, TSS/Chemical Division

Attachments:
Invoice & Certifications

~~_____~~ E

CHECK # ~~_____~~ IN THE AMOUNT OF \$33,333.33
RECEIVED 17 MAY 1957

Distribution:
Orig & 2 - Addressee
1 - Comptroller

~~_____~~ A

Dr. 600.1-887-2502-10-001-17.9 - \$ 33,333.33
Cr. ~~_____~~ \$ 33,333.33

1821
CERTIFIED FOR PAYMENT OR CREDIT
5/10/57
AUTHORIZED OFFICER

RECORDED

5-2636

RECEIPT

45-110

Receipt is hereby acknowledged of the following check:

Cashier's check No. 400840, dated February 12, 1957,
drawn on [REDACTED]
in the amount of \$33,333.34, payable to [REDACTED]

E

B

B

Date: 2-26-57

RECEIPT

Receipt is hereby acknowledged of the following check:

Cashier's check No. 400840, dated February 12, 1957,
drawn on [REDACTED]
in the amount of \$33,333.34, payable to [REDACTED]

E

B

B

Date: 2-26-57

RECEIPT

Receipt is hereby acknowledged of the following check:

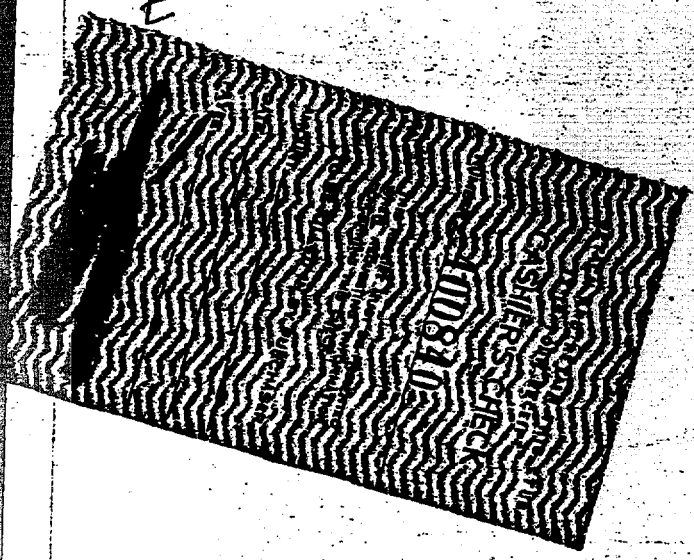
Cashier's check No. 400840, dated February 12, 1957,
drawn on [REDACTED]
in the amount of \$33,333.34, payable to [REDACTED]

E
B

Date:

Given to [REDACTED] A
Signed [REDACTED] 25 February 1957
A

E



45-111

~~SECRET~~

25 January 1957

MEMORANDUM FOR: CHIEF, FINANCE DIVISION

VIA: TSS/Budget Officer

SUBJECT: MKULTRA Subproject 45, Invoice No. 7
Allotment 7-2502-10-001

1. Invoice No. 7 for the above subproject is attached. Payment should be made as follows:

E Cashier's check in the amount of \$33,333.34, drawn on a ~~bank~~ bank.

B The check should be made payable to the ~~bank~~

2. Please forward the check to Chief, TSS/Chemical Division through TSS/Budget Officer by Friday, 8 February 1957. Other invoices will follow.

SIDNEY GOTTLIEB
Chief
TSS/Chemical Division

Attachments:
Invoice & Certifications

CHECK # 402570 THE AMOUNT OF \$33,333.34 RECEIVED.

Distribution:
Orig & 2 - Addressee
1 - Comptroller

~~Redacted signature area~~ A

Dr. 600.1-887-2502-10-001-17.1- \$ 33,333.34
Cl. Cash B 33,333.34

CERTIFIED FOR PAYMENT OR CREDIT

1/29/57
AUTHORIZING OFFICER

5-190

SECRET
INVOICE

For services

\$33,333.34

CERTIFICATIONS

(1) It is hereby certified that this is Invoice No. 7 applying to Subproject 45 of MKULTRA, that performance has been satisfactory, that the services have been accomplished in accordance with mutual agreements, that a detailed agenda of the payments and receipts is on file in TSS/CD, that this bill is just and correct and that payment thereof has not yet been made.

Chief, TSS/Chemical Division

Date:

(2) It is hereby certified that this invoice applies to Subproject 45 of MKULTRA which was duly approved, and that the project has been carried out in accordance with the memorandum dated 13 April 1953 from the DCI to the DD/A, and the extension of this authority in subsequent memoranda.

Research Director

Date:

75-112

~~SECRET~~

17 January 1957

MEMORANDUM FOR: COMPTROLLER

ATTENTION: Finance Division

SUBJECT: MKULTRA, Subproject #3, Additional Authorization No. 5

Under the authority granted in the memorandum dated 13 April 1953, from the DCI to the DD/A and the extension of this authority in subsequent memoranda, Subproject 45 was previously approved. Under the same authority an additional sum of ^{71,500.00} \$100,000.00 has been authorized to cover the subproject's expenses (thereby bringing to a total of \$100,000.00 funds obligated during FY 57), to be charged to Allotment 7-2502-10-001.

SIDNEY GOTTLIEB
Chief
TSS/Chemical Division

APPROVED FOR OBLIGATION OF FUNDS:

MAR 15 1957

Research Director

Date:

Distribution:

Orig & 2 - Addressee

- 1 - TSS/OC 1 - TSS/SRB
- 1 - TSS/FASB 2 - TSS/CD

TSS/CD (17 January 1957)

A

~~SECRET~~

E2 IMPDET. OF BY 10848

MEMORANDUM FOR: THE RECORD

SUBJECT: Project MKULTRA, Subproject 45

1. The scope of this subproject includes all those activities now engaged in by the [redacted] under the direction of TSS/CD with the exception of those cutout functions specifically mentioned in connection with other MKULTRA subprojects. In general, the research effort under this subproject will continue along the lines laid down in previous years. These involve the synthesis and pharmacological and clinical evaluation of compounds of those chemical families known to have application in the psychochemical and "K" fields. // Also, last year, research in the field of so-called "natural toxic psychoses" was undertaken and will be continued during the coming year.

step 11

B

2. The attached proposal from [redacted] because of its unclassified status, is couched in therapeutic terms; therefore, a certain amount of translation of its substance is warranted. Very briefly, the study on "toxic psychoses" has permitted the possible sources of reversible psychotic and/or comatose conditions to be narrowed down to a workable maximum number about which critical experiments can be designed to test various hypothetical chemical mediators. The chemical synthetic and screening program (some 100 new compounds during the year) has turned up three compounds of different families which are of fundamental importance with relation to the goals of this project. These three compounds include an orally active material which reduces blood glucose; another which acts by all routes, including percutaneous, and which appears to be the chemical mediator of "stress", and finally, a compound which is also orally active and which is a very potent new type of barbiturate and possibly alcohol antidote. It is now proposed to reduce the volume of the synthetic chemical effort in order to work out the pharmacological and clinical aspects of these and closely related substances.

C

3. [redacted] also serves as a general consultant to the Agency, provides services of a sensitive nature on an ad hoc basis, and serves as a cut-out in procurement problems.

C

4. The total cost of this project for a period of one year will not exceed \$100,000.00. Charges should be made against Allotment 7-2502-10-001. 65,000.00

CONFIDENTIAL

E2 IMPDET. OF BY 10848

CONFIDENTIAL
by authority of [redacted]
date: June 1957

E2 IMPDET

5. [redacted] has been requested to submit a summary C
accounting or a copy of the [redacted] annual audit report be made avail- B
able for the sponsor's inspection. Also, it has been requested that
any unexpended funds shall be returned to the Agency.

6. Title to any permanent equipment purchased by funds
granted [redacted] shall be retained by the [redacted] B
[redacted] in lieu of higher overhead rates.

7. It was mutually agreed that documentation and accounting for
travel expenses which are normally reimbursable by [redacted] B
[redacted] shall conform with the accepted practices of the Fund.

8. [redacted] agreed to comply with the requirements of C
the Memorandum of Agreement.

[redacted] A

Chief, Branch II
TSS/Chemical Division

APPROVED FOR OBLIGATION
OF FUNDS:

APPROVED:

[redacted] A
Research Director

[Signature]
Chief, TSS/Chemical Division

Date: 23 Jan 1957.

Attachment:
Proposal

Original only

CONFIDENTIAL
by authority of: 127475
date: June 1957
E2 IMPDET

PROPOSED RESEARCH PROGRAM

Four lines of investigation are proposed for the year 1957-58. The first line of investigation is the continuation of the toxic psychic states as illustrated by uremia, which was begun under the last grant. In the present proposal it is planned to study various phases of the uremic state along two major lines. One of these is the biochemical and pathological investigation of patients admitted to [REDACTED] B

[REDACTED] The other line of investigation will be pursued on experimental animals. Kidneys have either been removed or have been rendered nonfunctional by the ligation of the ureters. The major aspects of these two investigations are discussed in the appended report.

The second investigation proposed has to do with the investigation of novel glucose metabolic blocking agents. We are currently investigating a series of diglycolate derivatives which we have shown to block glucose metabolism with resulting storage of glycogen in the various organs, liver and kidney. The details of this are also appended.

The third proposal has to do with the study of some cyclic diamino compounds which we have shown produce the stress of phenomenon and associated rheumatoid states. The details of this proposal are also appended.

The fourth proposal concerns the continuation of chemical synthesis of a variety of piperazine compounds which will be linked with sarcosine. This report is also appended.

A similar line of chemical synthesis is also being carried out on nitrogen-containing bis phenols. These two parallel lines of chemical synthesis are a continuation of the investigations of [REDACTED] C

[REDACTED]
 [REDACTED]
 [REDACTED]

45-117
1-2

On the living patients it is possible by placing them on the artificial kidney and by adjusting the fluid bath which controls the dialysis, to differentially modify each of these three components in individual cases and to determine its effect on comatose states in patients. It is also possible to check this with spinal fluid determinations.

In the experiments that have been set up on animals we have living for periods of two to four days uremic rats and rabbits whose kidneys have been removed or whose kidneys are non-excreting because of ligation of the ureters. In the initial experiment on these animals we have been interested in simple fluid redistribution in the uremic state. It has been known for some time that patients dying of uremia may show increased fluid accumulation in any or all of the serous cavities. In other words, they show an accumulated transudate in the peritoneal cavity, in the pericardial cavity, in the pleural cavity or in the meningeal cavity of the subarachnoid space. In the control animals and in many patients, death from uremia occurs before this change in fluid distribution has occurred. In our experiments, by giving cortisone we can markedly increase the transudating fluid in all of these cavities and therefore produce at will cerebral edema along with increased fluid in the other serous cavities while the animal is still alive. This change in the distribution of fluid is important since in all the textbooks on uremia prior to recent potassium studies, the uremic state as exemplified by psychoses and coma, was thought to be due to cerebral edema or simple wet brain. One of the most striking bits of ignorance that were confronted in these studies is the fact that although it has been known for hundreds of years that there is such redistribution of fluid in the serous cavities, no one has ever raised the question whether it is due to increased rate of effusion or delayed rate of absorption, or both.

It is becoming increasingly evident in the study of abnormal fluid distribution in the body that there are two major controlling factors. One of these is the chemical

WARNING NOTICE

constitution of the fluid to be exchanged which may alter diffusion constants by its ionic or osmotic components, or alter the diffusion rate by containing constituents which damage or otherwise alter the diffusion membrane. The second factor is the biological composition of the diffusion membrane with its living structure and collagenous matrix. In the past several hundred years the tanning industry has been working with the biochemical properties of collagen since leather is 90 to 95% collagen. The workers in this industry have accumulated a large amount of information on two different agents. Those that wet or render more pliable collagen matrix and therefore make it more porous, and those that harden or toughen the collagen matrix and therefore render it less permeable. The first class of agents is termed lyotropic and its classical member is dilute acetic acid. The other group of agents is called tannin and the classical agent is tannic acid or the pyrogallic acids. This group of agents can be applied to the diffusion membranes to alter their reaction. Since many of the induced cerebral states can be attributed directly to hydration or dehydration of the cerebral substance, this investigation of the diffusion rates into and out of the serous cavities of the meninges offers a fundamental approach to study of one aspect of cerebral function.

~~WARNING NOTICE~~
~~SENSITIVE INTELLIGENCE~~

II - INVESTIGATION OF GLUCOSE METABOLISM AND ITS RELATION TO MENTAL FUNCTION AND CANCER THERAPY

It is well known that the brain in its metabolic function relies heavily on glucose and oxygen. The importance of the relation of glucose to cerebral function was first emphasized by the introduction of insulin shock therapy into the treatment of schizophrenia. This form of shock therapy was subsequently replaced by electric shock, but recently ^C [redacted] of [redacted] ^B [redacted] has shown that in diabetes the psychotic state can be induced by low blood sugar in the brain from sensitivity to insulin and can be reversed to normal by the intravenous administration of glucose. The author has been interested in substituting orally active and nontoxic chemical compounds as a substitute for insulin with the hope that more simple methods can be devised for modifying cerebral metabolism. A series of alkyl and alkylamino esters of oxy-diacetic acid have been prepared which block some phase of the Krebs's cycle of glucose metabolism. The exact point of blockage remains to be determined. The phenomena of blockage by these compounds, however, have been demonstrated in animals by showing that they produce glycogen storage in the liver, heart, and kidneys by preventing the conversion of glycogen to glucose. For the first time it has been possible to produce experimentally von Gierke's disease, which is characterized by glycogen storage in the above-mentioned organs.

The phenomenon of glycogen storage was first produced by both the dimethyl and diethyl derivatives of the diglycolate compounds. The initial experiments consisted of giving groups of six rats each doses of 5, 10, and 25 mg. per rat daily for periods of 6 weeks to 2 months. The glycogen storage was most marked early in the course of the administration, as demonstrated by sacrificing some rats at the end of 2 to 4 days. The experiments were subsequently modified to include rabbits, so that the blood and urine studies could be more easily made. It was shown in rabbits that the compounds initially

RECEIVED
 DIVISION OF CHEMISTRY
 NATIONAL BUREAU OF STANDARDS
 WASHINGTON, D. C.

produced glycosuria, which disappeared in 48 hours. The fasting blood sugar of the animals is lowered; no acetone bodies appear in the urine.

In the next experiment the compounds were administered orally, intramuscularly or intravenously to cancer patients and were found effective in controlling for a period of 3 months (to-date) diseases in the lymphoma and leukemic class. These patients have been able to tolerate the compound, and although it initially produced lowering of the blood sugar, if the dose is not increased, there is acquired tolerance to the hypoglycemic effect of the drug.

In the next experiment, the drug was administered to four diabetic patients. The blood sugar can be reduced in fresh diabetics not previously subjected to insulin from a level of 350 mg% to 250 mg% by the administration of 250 mg. of the compound. Diethyl is more potent than dimethyl derivatives. In other diabetics the blood sugar levels can be satisfactorily controlled for a period of 3 to 4 weeks on small doses but after that time tolerance develops, and the dosage must be raised. The compound lowers blood sugar by glycogen storage, but does not increase the capacity to burn sugar. Insulin must therefore be added.

In another group of experiments about to be undertaken, it is planned to administer these drugs to hospitalized diabetics and study the effect on mental function of large doses of the compound.

Several of the cancer patients on the compound have complained of mental fogging, which is accompanied by complete relief from pain on high dosage. This mental fogging, of course, is not experienced by diabetics and must be a function of the glucose level in the brain.

It is planned to synthesize a group of allied compounds and to broaden this line of investigation. It is also planned to utilize a Warburg apparatus and electrophoresis in order to elucidate the exact phase of glucose metabolism that is inhibited by these compounds.

III [REDACTED] C

By

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Prolongation of the Inflammatory Process by Immune Responses. When

bacteria or similar injurious substances gain access to living tissues the local capillary bed responds and permits the escape of fluid and leucocytes into the zone of injury. Most of the extravasated fluid returns to the circulation by the lymphatics because the inflammatory edema compresses capillaries and venules but distends the lymphatics, which are anchored by numerous septa to the interstitial fluid compartment.

The modified interstitial fluid from the injured area which returns via lymphatics traverses lymphoid tissue in the lymph nodes. The lymphoid tissue, within 3 to 7 days, responds by liberating antibodies which enter the circulation and return to the injured site where they serve to neutralize the injurious agent by uniting antibody with antigenic substances.

It is customary to describe the immune response which follows the inflammatory reaction to local injury as a co-defensive mechanism, which is highly specific and nearly 100 per cent efficient in its end results. A study of the allergic diseases such as hay fever, asthma, urticaria and eczema and the occurrence of such dramatic reactions as fatal anaphylaxis or extensive necrosis in the Arthma's phenomenon indicates that antibody-antigen reaction is not as accurate and efficient as immunologists lead us to believe.

* Supported by Grant [REDACTED]

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tendency for alarmine to further prolong the inflammatory reaction is inhibited by adrenal cortical hormones, which reaches the inflamed tissues via the circulation. This cortisone neutralizes the local alarmine effect and further inflammatory response is not provoked. 3. If the amount of antigen is unusually great or if repeated exposure to the antigen occurs alarmine is not neutralized but prolongs the general adaptation syndrome and at the same time provokes an even more marked vascular change, which has been erroneously termed collagenous necrosis, but is instead a misguided form of incipient fibrous repair.

It is the purpose of the present communication to describe the actions of amine irritants of the alarmine class, and to show their role in triggering the alarm reaction in the adrenal and also their role in the production of so-called diffuse collagen disease. We have been able to produce for the first time experimentally rheumatic myocarditis with Aschoff bodies, rheumatoid arthritis with rheumatoid nodules, and a variety of vascular lesions known as diffuse collagen disease, by irritant amines of relative simple chemical structure. (Fig. I).

Experimental Results of Painting Rats with Alarmine. In the original experiment 24 rats were painted twice daily with a 5 per cent solution of dimethyl dianiline. The solution in sesame oil was applied to a shaved area of skin on the thigh approximately 2 x 3 cm. in size. The rodents died within 36 to 72 hours. Vesicles or ulcerations of the skin appeared in all rats living more than 48 hours. The effect on the epidermis was similar to that of nitrogen-mustard, with destruction of the basal cells of the epidermis and vesiculation of nuclei. In some of these rats at autopsy the adrenals were slightly enlarged and hemorrhagic. It was, therefore, decided to undertake chronic toxicity studies and to study in detail the effect of the compound on the systemic organs, instead of restricting the study to the skin.

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From the knowledge of the formula and the effects on the skin and adrenal, it was assumed that one of two things might explain the results. The toxicity of the compound might have destroyed tissue and in this way caused adrenal hyperfunction through an alarm reaction; or the compound could be akin to that studied by Landsteiner, in which phenylamines acting as haptens combined with proteins to produce antibody reactions, thus producing an alarm reaction with first hypertrophy and then exhaustion of the adrenals through an allergic response. The results were puzzling, but interesting.

A second series of experiments were undertaken in which three groups of rats were painted daily on the surface of the shaved skin of the thigh over an area of approximately 2 x 3 cm. These were Wistar rats weighing 120 Gm.

Group I, consisting of eight rats, was painted with a 2 per cent solution in sesame oil daily except Sunday. Four untreated rats served as controls.

Group II, consisting of eight rats, was painted with a 1 per cent solution in sesame oil daily except Sunday. Four untreated rats served as controls.

Group III, consisting of eight rats, was painted with a 0.5 per cent solution in sesame oil daily except Sunday. Four untreated rats served as controls.

Group I. High Dosage. The rats died between 10 and 15 days, on the average of 12 days. They showed stationary weight. The skin showed some ulceration and vesicles, but not as severe as with the 5 per cent solution. Grossly, the adrenals did not appear to be markedly enlarged. The spleen and lymphoid tissues showed slight atrophy. The lungs showed increased secretion in the bronchi, and these rats seemed to die of pulmonary edema and congestion. The heart was dilated. Microscopically, the pulmonary edema was due to exudation of plasma (so-called lymphorrhagia) about the smaller blood vessels in the lung. The basement membrane of these smaller vessels showed smudging and dissolution and the endothelial lining cells projected into the lumen and some were detached. In the heart there was an accumulation of spindle cells between (endothelial

ial cells liberated by dissolution of adjacent capillaries) lying between

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the myocardial fibers, where they had been separated by edema fluid from leaking vessels similar to those found in the lungs. Some of the sections showed typical Aschoff bodies (Figs. 2 and 3). There were numerous dilated vascular spaces lined by a single layer of endothelium and many extravasated erythrocytes. In the synovial membranes of the knee joint the capillaries were dilated and filled with red cells, some of which were undergoing lysis. There was smudging of the ground substance immediately beneath the mesothelial lining layer. In the bone marrow the capillaries were similarly dilated and there were areas of coagulated extravasated fluid. The bone marrow elements were intact. The spleen showed almost complete disappearance of lymphoid pulp. The surviving germinal centers showed evidence of necrosis. Other organs were negative.

Group II. Middle Dosage. These rats lived a maximum period of 2 months, and they died between the 30th and 60th day. They showed failure to gain weight. At autopsy, grossly, the lungs were congested and showed pulmonary edema and increased secretion in the bronchi. There was some thickening of the arteries in the lungs, but not the veins. Histologically, there was some "onion peeling" of small arteries and arterioles, but some of the controls showed similar changes. The heart was dilated and the adrenals were enlarged. Microscopically, the adrenals showed hypertrophy and hyperplasia confined to the cortex. The spleen and lymphoid tissues were similar to Group I. Microscopically, the spleen showed reduction of lymphoid tissue and necrosis of the germinal centers. There was increased number of macrophages in the pulp with numerous binucleated forms. (Figure 4) and 5). The heart showed focal fibrosis with Anitschkow's cells and some Aschoff bodies, and about this there were areas of fibrinoid degeneration. The joint changes in animals that died early were similar to Group I. Other organs were negative.

Group III. Low Dosage. Some of the rats in this group died 6 weeks after the beginning of the experiments, but some were still living 3 months

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later. At autopsy, the outstanding finding was endothelial proliferation of the lining of small pulmonary vessels, so that their lumen was practically occluded. Some of the vessels looked like they were being recanalized and some looked almost like glomeruli. The endothelial proliferation in places extended out into the adjacent septa of the lung. This was found in only two rats, who apparently inhaled the alarmine while licking their wounds. (Fig. 5). The spleen was practically devoid of lymphoid tissue and nearly double in size. The pulp contained many macrophages with numerous foam cell types and there were some granulocytes but practically no lymphocytes. A few germinal centers were intact. The heart showed areas of fibrinoid degeneration and typical Aschoff bodies with Anitschkow's cells. In other vessels, the walls of the capillaries were disintegrating, and the liberated endothelial cells accumulated about arterioles to form typical Aschoff bodies. The adjacent myofibrils were necrotic and hyalinized. These changes were not as widespread as in the rats on higher dosage.

The knee joints on microscopic examination showed rheumatoid arthritis with the formation of rheumatoid nodules in the synovial membrane. (Fig. 6). The bone marrow was not remarkable. The brains and kidneys were normal in appearance. In the region of the kidneys and pancreas small to medium-sized vessels showed thrombocytosis or marked endothelial proliferation similar to that found in the lungs. (Fig. 7).

The skin showed epidermal hyperplasia in the painted areas. In the subcutaneous tissue of these rats there was marked edema simulating a stage in scleroderma, except that the location was not in the derma and was unaccompanied by atrophy of the hair follicles. In the voluntary muscles beneath the painted areas there were also collections of plasma cells and lymphocytes and damage to blood vessels simulating the lesions of dermatomyositis. (Fig. 9).

In the liver there were increased numbers of cells with acidophilic

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cytoplasm and binucleated forms. Some of the vessels showed endothelial proliferation as in the lungs. There seemed to be acidophilic inclusions resembling Councilman's bodies. Some of the liver cells were vacuolated; others showed hyalin droplet degeneration, and the nuclei were of varying size and density. (Fig. 10). The control rats showed no significant changes.

Effect of Alarmins on the Cement and Ground Substances. The primary effect of alarmins is to produce hydration of the mucopolysaccharide structure of basement membranes and ground substance in mesenchymal tissues. The most sensitive tissue component is the cement substance in the endothelial wall of capillaries; perhaps because this is the site of the initial contact in the tissue. The earliest change is softening which allows the capillary wall to stretch and form aneurysmal dilatations. (Fig. 11). In the basement membrane behind the endothelium in precapillary arteries and in arterioles, this hydration can be seen histologically as a chain of small bubbles, which we have termed beading. (Fig. 12). In the next stage the capillary wall disintegrates and the viable endothelial cells and intact erythrocytes spill into the tissue spaces. (Fig. 13). In the heart the liberated endothelial cells from the coronary capillaries migrate toward damaged arterioles and form perivascular Aschoff bodies. In subsequent stages there is more widespread damage to the connective tissue components. This results in fusion of erythrocytes, condensation of ground substance to form fibrinoid degeneration and liquefaction of other portions of the ground substance probably due to its infiltration by plasma leaking from the ruptured capillaries, and shredding of the collagen fibers with subsequent necrosis of these structures and adjacent muscle cells. Depolymerization and hydrolysis affects the nonviable cement and

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ground substance and fibers of vessels and connective tissue. Alarmino decomposes these nonviable components of stromal tissue, which are technically known as mucopolysaccharides and scleroproteins. This target tissue is the identical structure damaged by vitamin C deficiency and by hyaluronidase, and it is the same structure which is strengthened and rendered more resistant to this effect by cortisone. Alarmino is, therefore, an antagonist of vitamin C and cortisone and the artificial tanning substances, such as the quinolines.

If we analyze this pathologic series of responses into its major components, we find that intense injury by alarmino is an exaggeration of the pathologic process found in the simple healing of wounds, which has been termed organization. Here the injured tissue releases minimal amounts of alarmino which produces matrix hydrolysis and capillary aneurysmal dilatation of the capillaries due to the flaccid state of their walls. Because of the chemotaxis of the capillary endothelium for the hydrated matrix in the injured area, so-called capillary sprouts are dragged into the wound. The histologic picture that results is known as granulation tissue.

The primary effect of alarmino in producing the changes of rheumatoid carditis, rheumatoid arthritis and polyarteritis is on the basement membrane of blood vessels and not primarily on the collagen fibers of connective tissue. According to the latest chemical studies of collagen, the fibrinoid degeneration where it occurs in connective tissue does not involve the collagen bundles of well-formed connective tissue fibers. In order to emphasize the exact sequence of events it is important to review the histological and biochemical composition of connective tissue.

Robb-Smith² has defined connective tissue as a continuous matrix varying in consistency from the limpidness of Wharton's jelly of the umbilical cord to the hardness of bone in which lies an interlacing fabric of fibers of different and is bathing isolated or closely set cells. This continuous matrix pervades the spaces between organs and major

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vessels and supplies the capsule for these major structures, as well as their supporting stroma. This definition does not emphasize the most important cells, the fibroblasts, which show various stages of development from the reticulum cells to the adult fibrocytes and also a parallel line of development (usually under pathologic conditions) from reticulum cells to histiocytes. The definition also does not emphasize an additional specialized component of connective tissue, the basement membrane. The matrix of connective tissue contains a variety of mucopolysaccharides, such as hyaluronic acid and chondroitin sulfate in combination with proteins. In this matrix are embedded fibers of collagen, reticulin and elastica, which are defined as precipitated scleroproteins. The elastica does not concern us here, but the reticulin and collagen fibers do. The collagen fibers are polymerized polypeptides, which are oriented in linear fashion and contain a small amount of mucopolysaccharide. The reticulin fibers are really nonoriented scleroproteins with more abundant mucopolysaccharide. They may be termed precollagenous fibrils with a less differentiated structure. The important point is that both are precipitated ^{or} formed from the matrix. The third noncellular structure, besides fibers and ground substance, is the basement membrane, which is formed from reticulin fibers and condensed matrix, which stains more intensively for mucopolysaccharides than the ground substance. This condensed matrix at the basement membrane is usually termed cementin and also forms a binding substance between the endothelial cells in the capillary wall.

Histogenesis of the Aschoff Body

In pathologic response, depolymerization of the reticulin fibers and the condensed ground substance, both of which form the basement membrane of small vessels, permits hydration of the matrix, which is hydrophilic and retains water and absorbs electrolytes. At the same time the cement substance of the capillary wall is similarly affected. The initial stage, therefore, in the

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rheumatoid and collagen diseases that we are discussing is a depolymerization of cementin with leakage and hydration of the ground substance with secondary loss of collagen fibrils. In response to the hydration of the ground substance, the connective tissue cells proliferate and contribute to the Aschoff bodies (which at first contain only liberated endothelial cells from destroyed capillaries) and form rheumatoid nodules, which are so characteristic of the rheumatoid state. Since the basement membrane is the primarily affected structure and this is composed of condensed ground substance and reticulin fibers and not of the more highly differentiated collagen fibers, the term collagen disease does not describe the primary process. The fibrinoid degeneration observed is a coagulum of the ground substance and cement substance. The endothelial aggregates, which previously have been neglected, are provided by separation of the endothelial cells from altered or dissolved capillaries. Endothelial proliferation and fibrocytic proliferation both contribute to the formation of the Aschoff body and are both secondary to the freeing of these fixed cells which come to lie free in a fluid matrix, which is mostly blood plasma and partly hydrated cement substance and matrix.

Role of Adrenal in the General Adaptation Syndrome

There is good reason to believe that the general adaptation syndrome of Selye³, in which the adrenal cortex plays the dominant role, serves as a co-defensive mechanism both in local tissue damage and in the immunological responses of the reticuloendothelial system. Sayers⁴ believes that products of tissue damage following severe injury combine with cortical hormones in the peripheral tissues, and with the resultant fall in their concentration in the venous blood, this normal check on the adenohypophysis is released and the pituitary responds by increased secretion of ACTH. This resultant increase in the output of ACTH depletes the adrenal cortex of its hormones and stimulates additional hormone production.

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If the period of stress is prolonged or continued, stimulation produces cortical hyperplasia and enlargement of the adrenals. This cortical hyperfunction results in alteration of carbohydrate, protein and fat metabolism. There is also an elevation of sodium electrolytes in the serum, which increases the resistance of the animal by expanding the metabolic pool and the volume of tissue fluids. At the same time, there is increased excretion of such toxic products as potassium, histamines and uric acid. Simultaneously, the immune mechanisms are reinforced by destruction of lymphocytes resulting in lymphocytopenia, eosinopenia and leucocytosis. Since lymphocytes store immune globulins, their disintegration leads to a rapid rise in antibody titer.

If exposure to stress continues, the adaptation syndrome fails and is followed by exhaustion. Selye believed that the excessive drain on the anterior pituitary and adrenal cortical hormones incident to protracted or repeated trauma may result in cardiovascular renal and joint disease, and he lists such entities as nephrosclerosis, polyarteritis, carditis and arthritis as adaptation diseases. However, the consensus of present day opinion holds that these are forms of diffuse collagen disease resulting from hyperimmunity. Talbot and Ferrandis⁵ believe that the etiology of these conditions is still unknown and that no investigation has successfully reproduced them in animals except for polyarteritis in rabbits and the occurrence of disseminated lupus erythematosus in humans following the administration of the antihypertensive drug, hydralazine (Apressaline).

In the authors' opinion, it is now possible to demonstrate that similar irritating amines are released in tissue damage, where they have been customarily referred to as "H" substances, and in the union of antigen and antibody, where they have been termed "union substances." These irritating

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amines, which we have termed alarmins, neutralize adrenal cortical hormones in the tissues and thus release ACTH and stimulate the general adaptation syndrome. They are in turn neutralized by increased excretion of adrenal cortical hormones if bodily resistance is adequate (the resistance phase of Selye's).

However, if tissue damage is overwhelming the body passes rapidly through the phases of alarm and resistance to exhaustion. Such acute exhaustion is synonymous with irreversible shock or peripheral vascular failure (so-called forward cardiac failure). If overwhelming acute stress involves the immune mechanism, the high concentration of unneutralized alarmins provokes the Arthus's phenomenon with its characteristic vascular thrombosis and resultant tissue necrosis. If stress is unduly prolonged by repeated exposure to infections or similar antigens, the continued and increasing release of unneutralized alarmins exhausts the adrenals or exceeds their protective capacity (even in the presence of cortical hypertrophy), and collagen disease results.

The Stress Aspects of Alarmins

In the experiments reported above the adrenal cortical enlargement observed may be considered an indirect effect of alarmins, which neutralizes cortisone in the tissues and thus stimulates the adenohypophysis, which releases ACTH to bring about the cortical hyperplasia. Another interpretation, however, is possible. The alarmins may act directly on the adrenal medulla, which in turn releases adrenalin to stimulate the adenohypophysis to secrete increased ACTH. This second interpretation is suggested by the degenerative changes in the adrenal medulla, which were observed in a further group of experiments described below. Whether either or both mechanisms apply, the fact remains the adrenals undergo enlargement in some animals to four times their normal weight). The changes in the lymphoid tissues, particularly magnified in the spleen, are the result of the adrenal cortical hyperplasia. The alarmins in any event initiate the adaptation syndrome.

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In order to demonstrate the relationship of alarmine to cortisone and to the stress phenomenon, which Selye has termed the general adaptation syndrome, a third group of experiments was performed. The rats used were males of the Wistar strain, weighing 100 Gm. each, and were injected intramuscularly six days weekly for 25 days and then sacrificed. The tissues of all major organs were examined.

Group I consisted of six control rats, receiving 1/2 cc. of normal saline. No significant changes were observed in this group. One animal had murine pneumonitis, and one had some increase in the connective tissue cells between the myocardial fibers.

Group II consisted of 6 rats, receiving 0.1 cc. each of spirits of turpentine. These rats were sacrificed on the ninth day. They showed mild perivascular edema and separation of connective tissue fibers about small vessels, but none of the striking changes observed with alarmine. There was no adrenal hypertrophy.

Group III consisted of 6 rats, receiving 1 mg. daily of an amine compound in which methyl piperazine was linked with propanol to dimethyl piperazine. No significant changes were observed in these rats, when sacrificed on the 26th day.

Group IV consisted of 6 rats, receiving 2.5 mg. daily of an amine compound in which methyl piperidine was linked with another molecule of piperidine by propanol. No significant changes were observed in these rats when sacrificed on the 26th day.

Group V consisted of 6 rats, receiving 0.1 mg. daily of alarmine. These rats were sacrificed on the 26th day. They showed changes in the lungs, heart, joints, spleen and adrenals similar to those reported above in the rats painted with 0.5 per cent solution of alarmine in sesame oil.

Group VI consisted of 6 rats, receiving 0.1 mg. of alarmine daily, plus 2.5 mg. daily of procaine HCl. These rats were sacrificed on the 26th day.

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They showed changes similar to those in Group V, but the changes were slightly more pronounced. The reason for this, in our opinion, is that the procaine inhibited pain and irritation from the alaraine in the local tissues, and thus did not provoke such a pronounced cortical response in the adrenals. In other words, there was less stress phenomenon provoked in the adrenal.

Group VII consisted of 6 rats, receiving 0.1 mg. of alaraine daily, plus 1 mg. daily of cortisone. These rats were sacrificed on the 26th day. No significant change was observed in any organ. The cortisone had completely inhibited the response to alaraine.

Conclusion

It may be concluded from the above experiments and observations that a diamino benzene derivative, which we have termed alaraine, is a relatively specific irritant amine, which is capable of hydrolyzing the cement and ground substances of connective tissue and of producing the so-called collagen diseases. At the same time it provokes the general adaptation syndrome, but if given in sufficient amounts or concentration it is capable of overriding the protective response of the general adaptation syndrome, which it provokes. This irritant amine can be neutralized in its pathologic effects by the simultaneous administration of sufficient amounts of cortisone.

The collagen diseases which we believe to be reproducible with this substance are: rheumatic carditis, rheumatoid arthritis, scleroderma and dermatomyositis, and polyarteritis. In the experiments recorded above glomerulonephritis and membranous glomerulitis with wire-looping in the capillary loops of the nephron characteristic of disseminated lupus erythematosus were not observed. Since this is undoubtedly a collagen disease, an attempt to produce such changes was made in a final group of experiments. Six Wistar male rats, weighing 60 to 80 Gm., were painted daily with a 2 per cent solution of alaraine to a shaved area of the thigh 2 x 3 cm. The smaller rats were chosen in preference to raising the

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alarmine dosage. These rats died after three days and complete autopsies were performed. They showed changes in the heart and joints characteristic of early rheumatic carditis and rheumatoid arthritis, as previously described. In addition, all of the rats showed membranous glomerulonephritis, with wire-loops characteristic of disseminated lupus erythematosus. There were also vascular lesions in the brain, such as are seen in collagen diseases, and small focal accumulations of gitter cells, resembling typhus nodules, a reaction to vascular damage. The type of collagen disease observed, therefore, is dependent upon the concentration of alarmine released in the tissues.

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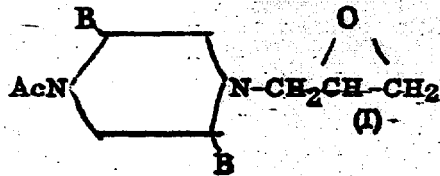
- 45-113
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- Figure 1. Formula of Alarmin
 - Figure 2. Change in Vessels in Lung
 - Figure 3. Aschoff Bodies in Heart
 - Figure 4. Changes in Adrenal
 - Figure 5. Changes in Spleen
 - Figure 6. Rheumatoid Arthritis of Knee Joint
 - Figure 7. Thrombocytosis of Artery in Renal Fat
 - Figure 8. Subcutaneous Scleroderma
 - Figure 9. Dermatomyositis
 - Figure 10. Liver Changes
 - Figure 11. Capillary Aneurysms
 - Figure 12. Beading of the Basement Membrane
 - Figure 13. Capillary Dissolution with Liberation of Endothelial Cells

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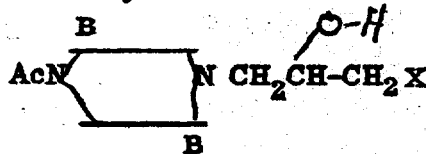
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1. Code: Ac. 7. 2

This synthetic work relates to compounds of the structure

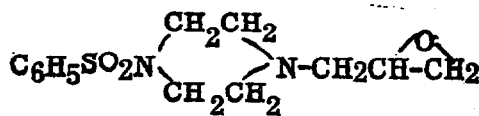
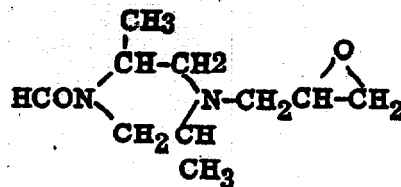
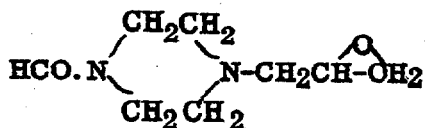


and the halohydrins



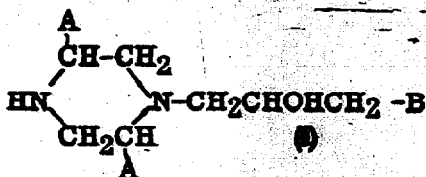
which may be used in the synthesis of I, where AC is a member of the group made up of acyl, aryl sulfonyl and alkyl sulfonyl, and B is a member chosen from the group made up of H and CH₃ and X is a member of the group made up of chloride, bromide and iodine.

Typical compounds to be included:

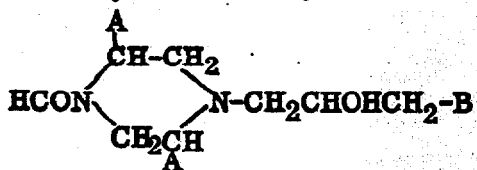


2. Code: Ax7 Cx7

This synthetic work relates to compounds of the structure



their acid addition salts and quaternary ammonium salts, and the formyl derivatives,



which may be used in the synthesis of I

where A is a member chosen from the group made up of H and CH₃ and B is a monovalent amino radical which is a member taken from the group made up of the following:

- (1) a radical of the structure RNH- where R is an alkyl radical from 1 to 4 carbons
- (2) a radical of the structure $\begin{array}{c} \text{R}' \\ | \\ -\text{N} \\ | \\ \text{R}'' \end{array}$

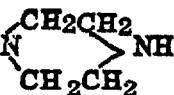
where R' and R'' are alkyl radicals, the total carbon content of which is between 2 and 8

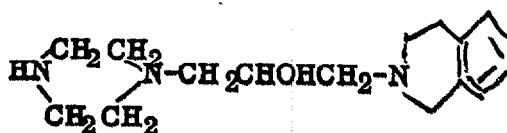
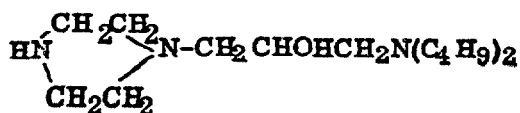
(3) a heterocyclic radical which is a member of the group made up of pyrrolidino, piperidino and morpholino

(4) 1-(1, 2, 3, 4-tetrahydroquinolino), 1-(decahydroquinolino),

1-(6-methoxy-1, 2, 3, 4-tetrahydroquinolino) and

2-(1, 2, 3, 4-tetrahydroisoquinolino).

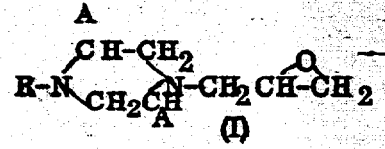
Typical compounds: CH₃NHCH₂CHOHCH₂N 



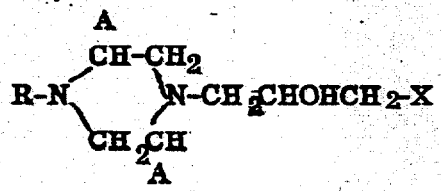
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3. Code: R.7

This synthetic work relates to compounds of the structure



and the halohydrins



which may be used in the synthesis of I

where R is a member chosen from the group made up of an alkyl radical of from 1 to 6 carbons, benzyl and benzhydryl, and

A is a member chosen from the group made up of H and CH₃ and

X is a member chosen from the group made up of chloride, bromide and iodide.

~~WARNING NOTICE~~

~~SENSITIVE INTELLIGENCE~~

~~SOURCES AND METHODS INVOLVED~~

PROPOSED BUDGET

1957 - 1958

Analysis of Body Fluids in Toxic States

Biochemists (2)	\$16,000.00	
Technicians, Laboratory (2)	6,000.00	
Special Equipment	10,000.00	
Supplies	8,000.00	
Clinical Assistant	<u>6,000.00</u>	\$ 45,000.00

Chemical Synthesis

C [REDACTED] Consultant	1,500.00	
C [REDACTED] B	4,500.00	
B [REDACTED] (chemical syntheses)	<u>20,000.00</u>	26,000.00

Toxicology and Pharmacology

Animal caretaker and animals	12,000.00	
Pharmacologist and technician	12,000.00	
C [REDACTED] Toxicology	<u>5,000.00</u>	<u>29,000.00</u>

TOTAL \$ 100,000.00

~~WARNING NOTICE~~
~~PREVENTING INTELLIGENCE~~
~~SOURCES AND METHODS DISCLOSED~~

45-118

10 September 1956

MEMORANDUM FOR: CHIEF, FINANCE DIVISION

VIA: TSS/Budget Officer

SUBJECT: MKULTRA Subproject 43
Invoice No. 6, Allotment 6-2502-10-001

1. Invoice No. 6 for the above subproject is attached. Payment should be made as follows:

(E)

Cashier's check in the amount of \$34,000.00, drawn on a [redacted] bank.

(B)

The check should be made payable to the [redacted]

(B)

2. Please forward the check to Chief, TSS/Chemical Division through TSS/Budget Officer by Friday, 5 October 1956.

3. This is a final invoice. A total of \$133,000.00 was obligated under this subproject during FY 56. However since it is anticipated that additional funds will be obligated for this project, the files should not be closed.

(E)

CHECK # 60710 IN THE AMOUNT OF \$34,000 RECEIVED 26 1956

(A)

SIDNEY GOTTLIEB
Chief
TSS/Chemical Division

Attachments:
Invoice & Certifications

Distribution:
Orig & 2 - Addressee
1 - Comptroller
1 - TSS/FASB
1 - 2 TSS/CD

I CERTIFY THAT FUNDS ARE AVAILABLE:
OBLIGATION REFERENCE NO. 1493
CHARGE TO ALLOTMENT NO. 6-2502-10-001
AUTHORIZING OFFICER [redacted]

12 1956

(A)

TSS/CD: [redacted] (10 September 1956)

(A)

25 13 6 58 AM '56

(A)

45-115

[REDACTED]

INVOICE

For services

\$34,000.00

[REDACTED]

CERTIFICATIONS

(1) It is hereby certified that this is Invoice No. 8 applying to Subproject 45 of MKULTRA, that performance is satisfactory, that the services are being accomplished in accordance with mutual agreements, that a detailed agenda of the payments and receipts is on file in TSS/CD, that this bill is just and correct and that payment thereof has not yet been made.

Chief, TSS/Chemical Division

Date:

(2) It is hereby certified that this invoice applies to Subproject 45 of MKULTRA which was duly approved, and that the project is being carried out in accordance with the memorandum dated 13 April 1953 from the DCI to the DD/A, and the extension of this authority in subsequent memoranda.

Research Director

Date:

[REDACTED]

911-54

RECEIPT

FILE SUB PROJECT
45?

I hereby acknowledge receipt of [REDACTED]
Official Check # MN240957 in the amount of \$33,000.00,
payable to the [REDACTED]

(E)

(B)

[REDACTED]

(C)

Date 6 June 1956

[REDACTED]

5 June 1956

MEMORANDUM FOR: THE COMPTROLLER

ATTENTION : Finance Division

SUBJECT : MILTRA, Subproject 45, Additional Authorization No. 8

Under the authority granted in the Memorandum dated 13 April 1953 from the DCI to the DD/A, and the extension of this authority in subsequent memoranda, Subproject 45 was previously approved. Under the same authority an additional sum of \$3,760.00 has been authorized to cover the subproject's expenses and should be charged to Allotment 9-2502-75-902.

[REDACTED]
 Chief
 TSS/Chemical Division

APPROVED FOR OBLIGATION OF FUNDS:

[REDACTED]

 Research Director

I CERTIFY THAT FUNDS ARE AVAILABLE;
 OBLIGATION REFERENCE NO. 3660
 CHARGE TO ALLOTMENT NO. 6-2502-75-902

 AUTHORIZING OFFICER

Date: 6 JUN 1956

Distributions:
 Orig & 2 - Addressee

- 1 - TSS/OC
- 1 - TSS/FASB
- 2 - TSS/CD

[REDACTED]

45-14

11 June 1959

MEMORANDUM FOR: CHIEF, FINANCE DIVISION

VIA : TSS/Budget Officer

SUBJECT : MKULTRA, Subproject 45, Invoice No. 14
Allotment 9-2502-75-902

1. Invoice No. 14 covering the above subproject is attached.
Payment should be made as follows:

(E) Cashier's check in the amount of \$35,750.00,
drawn on a [redacted] Bank.

(B) The check should be made payable to the [redacted]

2. Please forward the check to Chief, TSS/Chemical Division,
through TSS Budget Officer, no later than 22 June 1959. Other
invoices will follow.

(A)

[redacted]
Chief
TSS/Chemical Division

Attachments:
Invoice & Certifications

Distribution:
Orig & 2 - Addressee
1 - TSS/FASB
2 - TSS/CD

(A) TSS/CD [redacted] (11 June 59)

I CERTIFY THAT FUNDS ARE AVAILABLE
OBIGATION REFERENCE No. 1913
CHARGE TO ALLOTMENT No. 9-2502-75-902

AUTHORIZING OFFICER

[redacted]

4-120

FILE 45

Q

D

RECEIPT

I hereby acknowledge receipt of the following check:

Official Check, dated March 1, 1956, in the amount of \$33,000.00,
E drawn on ~~Bank of America~~, payable to the
B. ~~Bank of America~~. The check number is
NS 226791.

~~Bank of America~~ A

Date: 1 March 1956

for forwarding

SECRET

45-121

22 May 1956

MEMORANDUM FOR: CHIEF, FINANCE DIVISION

VIA: TSS/Budget Officer

**SUBJECT: MKULTRA Subproject 45, Invoice No. 5
Allotment 6-2502-10-001**

1. Invoice No. 5 for MKULTRA Subproject 45 is attached. Other invoices will follow later. It is requested that payment be made by cashier's check in the amount of \$33,000.00. The check should be drawn on a [redacted] bank and made payable to the [redacted].

(E)
(B)

2. Please forward the check to Chief, TSS/Chemical Division through TSS/Budget Officer by 7 June 1956.

[redacted]
Acting Chief
TSS/Chemical Division

**Attachments:
Invoice & Certifications**

Distribution:
Orig & 2 - Addressee
1 - Comptroller
1 - TSS/FASB [redacted]
2 - TSS/CD

(E)

I CERTIFY THAT FUNDS ARE AVAILABLE ^{24 MAY 1956}
OBLIGATION REFERENCE No. 433
CHARGE TO ALLOTMENT No. 6-2502-10-001

AUTHORIZING OFFICER

CHECK # ⁴⁴⁴ 210857 IN THE AMOUNT OF \$33,000.00
RECEIVED 5 JUN 1956

TSS/CD: [redacted] (22 May 1956)

(A)

(A)

DUPLICATE

MAY 22 5 02 PM '56

COMMUNICATIONS SECTION

~~SECRET~~
INVOICE

For services

\$33,000.00

(B) ~~SECRET~~

CERTIFICATIONS

(1) It is hereby certified that this is Invoice No. 5 applying to Subproject 45 of MKULTRA, that performance is satisfactory, that the services are being accomplished in accordance with mutual agreements, that a detailed agenda of the payments and receipts is on file in TSS/CD, that this bill is just and correct and that payment thereof has not yet been made.

Acting Chief, TSS/Chemical Division

Date:

(2) It is hereby certified that this invoice applies to Subproject 45 of MKULTRA which was duly approved, and that the project is being carried out in accordance with the memorandum dated 13 April 1953 from the DCI to the DD/A, and the extension of this authority in subsequent memoranda.

Research Director

Date:

45-122

21 February 1956

MEMORANDUM FOR: CHIEF, FINANCE DIVISION

VIA : TSS/Budget Officer

SUBJECT : MULLFA Subproject 45, Invoice #4
Allotment 6-2502-10-001

1. Invoice #4 for MULLFA Subproject 45 is attached. Other invoices will follow later. It is requested that payment be made by cashier's check in the amount of \$33,000.00. The check should be drawn on a [redacted] bank and made payable to the [redacted].

(E)
(B)

2. Please forward the check to Chief, TSS/Chemical Division through TSS/Budget Officer by 5 March 1956.

(A)
(E)

[redacted]
Deputy Chief
TSS/Chemical Division

Attachments:
Invoice & Certifications

CHECK # 228791 IN THE AMOUNT OF \$33,000
RECEIVED 6 MAR 1956

Distribution:
- Orig & 2 - Addressee
1 - Comptroller

(A)

(A)
TSS/CD/ [redacted] 6001-6-2502-10-001-17-9-33,000.00

Cash

33,000.00

INVOICE DIVISION

CERTIFIED FOR PAYMENT OR CREDIT

(A)

AUTHORIZED SIGNATURE OFFICER

1956 FEB 21 10 01 AM

CERTIFY THAT FUNDS ARE AVAILABLE:
OBLIGATION REFERENCE No. 1437
CHARGE TO BUDGET ITEM NO. 6-2502-10-001

RECEIVED

MEMORANDUM OF AGREEMENT

B The purpose of this memorandum is to set forth the mutual administrative responsibilities of the [redacted] hereafter known as the [redacted] the principal investigator, and the sponsor. Therefore, it is mutually agreed that,

B A. the principal investigator shall submit for the sponsor's inspection the [redacted] annual audit report, certified by a CPA.

B. The bank statements and cancelled checks of the special account, maintained for third party disbursements, shall be submitted for inspection upon the sponsor's request.

B C. It is understood that any travel expenses incurred in the furtherance of the research program will be accounted to the [redacted] in a manner consistent with its established practices and policies.

D. Upon the request of TSS/CD, the principal investigator shall submit to the sponsor reports of technical progress in the research covered by these funds.

C [Large redacted block]

Date: 2/1/56

Downgraded to: ~~CONFIDENTIAL~~

by authority of: 187475

date: June 1957

E2 IMPDET; CL BY 187475

45-124

(A) DRAFT: ~~CONFIDENTIAL~~
30 January 1956

MEMORANDUM FOR: THE RECORD

SUBJECT: Project MKULIRA, Subproject 45

(B)

1. The scope of this project is intended to encompass all those activities now engaged in by the ~~██████████~~ under the direction of TSS/CD. These activities take the form of three lines of biochemical investigation, namely, the Curare-like effect of certain thiols, the preparation of hydrogenated quinolines and indole alkaloids and a program of investigation of toxic cerebral states. This last investigation will include bio-assay and chemical analysis of various body fluids of animals in which cerebral toxemias have been produced. It is the aim of this program to endeavor to understand the mechanism of such states as toxic delirium, uremic coma, and cerebral toxicity from poisoning. In order to continue the established "cover" activities of the ~~██████████~~ and to make available a pool of subjects for testing purposes, the ~~██████████~~ and ~~██████████~~ effects of compounds resulting from the above program will be evaluated.

(B)

(B)

(C)

2. The attached proposal from ~~██████████~~ indicates the extent of the investigations that his facilities will allow him to carry out on the materials developed in the three lines of research referred to in paragraph one, as well as certain other materials of interest to TSS/CD. ~~██████████~~ also serves as a general consultant to this Division and provides cover and cut-out facilities to the Agency.

(C)

3. The total cost of this project for a period of one year will not exceed \$100,000. Charges should be made against Allotment 6-2502-10-001.

(C)

(B)

4. ~~██████████~~ has been requested to submit a summary accounting or a copy of the ~~██████████~~ annual audit report be made available for the sponsor's inspection. Also, it has been requested that any unexpended funds shall be returned to the Agency.

(B)

(C)

5. Title to any permanent equipment purchased by funds granted ~~██████████~~ shall be retained by the ~~██████████~~ in lieu of higher overhead rates.

* other than its activities as a cut-out

Downgraded to: ~~CONFIDENTIAL~~

by authority of: 187475

date: June 1957

E2 IMPDET; CL BY 187475

Downgraded to: ~~CONFIDENTIAL~~
by authority of 187475
date: June 1977

45-124

E2, UNDET; CL BY 187475

- 2 -

- (b) 6. It was mutually agreed that documentation and accounting for travel expenses which are normally reimbursable by the [redacted] shall conform with the accepted practices of the [redacted]
- (b) 7. [redacted] agreed to comply with the requirements of the Memorandum of Agreement.

(A)

[redacted]
TSS/Chemical Division

APPROVED:

[Signature]
Chief, TSS/Chemical Division

APPROVED FOR OBLIGATION
OF FUNDS:

(A)

[redacted]

Research Director

Date: 2 Feb 1976

Attachment:
Proposal

Distribution:
Original Only

Downgraded to: ~~CONFIDENTIAL~~
by authority of 187475
date: June 1977

E2, UNDET; CL BY 187475

45-124

~~WARNING NOTICE~~

RESEARCH PROPOSAL

~~SENSITIVE INFORMATION~~
~~SOURCES AND METHODS INVOLVED~~

(B)

[REDACTED]

February 1956 - 1957

Part I

Bio-assay and Chemical Analysis of Body Fluids in Toxic Cerebral States

General Survey of the Problem

There are a variety of clinical conditions, many of them terminal, in which patients under clinical observation pass from mild disorientation into delirium and coma. These conditions of cerebral intoxication are often associated with the failure of some vital organ other than the brain. The most important forms of such cerebral intoxications are

- 1 - Uremic coma associated with renal failure
- 2 - Hepatic coma associated with liver failure
- 3 - Convulsions and coma of eclampsia associated with the pathology of the placenta and involving also the liver and kidneys
- 4 - Malignant cachexia associated with advanced carcinomatosis
- 5 - Toxic delirium associated with severe bacterial infection, at times with a generalized septicemia or bacteremia
- 6 - Delirium, coma and convulsions resulting from chemical poisoning in which the toxic substance may act directly or indirectly on cerebral tissue.

1 - Uremia. A review of the current texts and contributions to medical journals reveals a remarkable lack of information concerning these forms of cerebral intoxication. Thus, in uremia there is a wide difference of opinion in regard to the identity of the urinary constituents retained in the blood which are responsible for the effects on the central nervous system. Fishberg states that after a hundred years of search for the "uremic principle" its identity still remains a mystery. Homer Smith, in his work on the kidney, stresses the importance of potassium retention. Others have implicated the magnesium ion. Most authors

45-124
2

on the subject believe that the cerebral effects of uremia are the result of retention of phenolic compounds. A smaller number believe that retained nitrogenous substances such as indican and unidentified products of intermediary protein metabolism are the responsible agents. The only sphere of agreement is the well-established fact that injection of normal urine into laboratory animals in adequate doses will produce coma and death, whereas the urine from patients in uremia is relatively non-toxic, the toxic substances remaining in the bloodstream of the affected individuals. It is interesting to note in the transactions of the Macey Foundation on Renal Function from 1949 to 1953 that a conference has not been devoted to the subject of uremia.

2 - Hepatic Coma. The cerebral effects of hepatic failure consisting of high fever and progressively deepening coma have been stressed by Heyd, and are often known as the Heyd syndrome. The cause of the coma is generally attributed to the retention of ammonia or ammonium carbonate. However, with the introduction of the artificial kidney the removal of ammonia by dialysis, which is readily accomplished, has been shown to have no influence on the comatose condition of the patient. Some investigators have postulated the retention of bile acids as the cause of the coma. There is even less information available on hepatic coma than on uremia.

3 - Eclampsia. Eclampsia remains "a disease of theory". The convulsions and coma that occur in these patients are of unexplained origin. The concensus of opinion to date is that the effects are brought about by spasm of the smaller blood vessels but the cause of the vascular spasm remains undetermined.

4 - Cachexia. The disorientation and coma of patients with cachexia resulting from malignant disease have provoked remarkably little attention in recent years. Willis believes that the cachectic state is an expression of malnutrition with the retention of acetone bodies and is therefore related to diabetic coma. However, there are no adequate studies to substantiate this theory and the treatment of such patients with intravenous glucose and injections of insulin has not been carried out to my knowledge.

CONFIDENTIAL
SURVEILLANCE
PERSONS INVOLVED

5 - Toxic Delirium. Before the days of penicillin and the antibiotics, disorientation and delirium were frequent complications of severe infection. It was common in pneumonia and treated by forcing fluids either intravenously or by mouth. However, the toxic effects on the central nervous system of common infectious organisms received no detailed study. In general, the cause of the delirium was related to the severity of the infection.

In summarizing the known facts about uremia, hepatic coma, eclampsia and toxic delirium we can say that the specific cause of the cerebral depression remains unknown in all of them. The only common pathologic effect is the lowering of the cerebral uptake of oxygen. This, however, apparently is a consequence of the suppression of cerebral function rather than a causative factor.

6 - Cerebral Toxicity Associated with Poisoning. The terminal stage of most forms of poisoning is usually described as "Convulsions, coma and death". The localization of the underlying cerebral effects, however, has not been ascertained for the systemic poisons. In an attempt to arrive at a compendium of present day information we have summarized the pathology of various forms of poisoning in the tabulations submitted with this proposal.

Plan of Procedure

Analysis of Body Fluids. We propose to establish a laboratory for the chemical analysis of body fluids in the toxic cerebral states. When patients with toxic cerebral manifestations are under observation in the hospital for uremia, hepatic coma, eclampsia, malignant cachexia, etc., blood serum, cerebrospinal fluid, intraperitoneal fluid and pleural fluid will be obtained and fractionated for possible toxic components such as phenol, bile acids, toxic amines and other components that may be found of interest as the project develops. This analytical laboratory will employ two biochemists. One will be associated with the routine service laboratories at the (B) [redacted] and will supervise the collection and

preservation of these materials and will provide the routine analysis of their constituents which can be determined by known chemical technics such as determination of potassium, sodium and other inorganic constituents, their organic constituents such as bile acids, urea, non-protein nitrogen, CO₂ combining power, etc. The other biochemist will be engaged in specialized chemical analysis, such as electrophoresis, spectrographic analysis, etc. and will try to devise new methods for the determination of toxic amines, phenols, etc.

[REDACTED]

Bio-Assay of Body Fluids. Another laboratory will be maintained in the animal house for bio-assay on laboratory animals of the toxic constituents isolated in the chemical laboratory.

Animal Experimentation. While the chief interest in the toxic cerebral state centers in patients, it is planned nevertheless, to produce these conditions in laboratory animals and to carry out parallel studies on their body fluids. Both uremia and hepatic coma are readily produced in laboratory animals, such as dogs, rabbits, guinea pigs and rats by the surgical removal of the kidneys or liver, or through selective poisoning of these organs. A highly specific form of chemical damage to the liver can be achieved by injecting carbon tetrachloride into the portal vein and a highly selective form of renal damage can be produced by injecting HgCl₂ into the renal arteries. Laboratory animals also offer the best available means for the analysis of the cerebral effects of neurotoxic chemical compounds.

~~WARNING NOTICE~~
SENSITIVE INTELLIGENCE
SOURCES AND METHODS INVOLVED

~~WARNING NOTICE~~

~~SENSITIVE INTELLIGENCE~~

~~SOURCES AND METHODS INVOLVED~~

Part II

Program for the Chemical Synthesis of Neurotoxic Compounds.

It is planned to continue the synthesis of neurotoxic compounds in accordance with the previous leads and accomplishments disclosed by the work carried out during 1954

C and 1955. Four separate laboratories are engaged in this work. [redacted] in cooperation with [redacted] is continuing the synthesis of sulfur-containing organic

C compounds. These thiol compounds beside their curare-like effects also are effective agents in influencing the autonomic nervous system. During the year 1955 the [redacted]

B at [redacted] under the direction of [redacted] has cooperated in the pharmacological testing of these compounds. The [redacted]

has found that the isothiuroniums exhibit inhibitory effects on both the sympathetic and parasympathetic ganglia and also potentiate epinephrine.

C [redacted] is continuing his work on the diphenolic and monophenolic B compounds at the [redacted]

In recent years the nitrogen group has been introduced by the Mannich reaction on the phenolic ring so that there is one carbon between the nitrogen and the ring structure. In 1956 it is proposed to intro-

C duce the nitrogen directly on the ring by nitration. Some of [redacted] phenolic compounds produce definite auditory hallucinations and disturbance of taste and oral sensations. These

effects are transitory and their duration is dependent on the dose of the drug. These compounds are of great clinical interest because of the scarcity of drugs in this field. The most potent compound in this group are derivatives of 4-chloro-3, 5 dimethyl phenol.

CB [redacted] of the [redacted] has prepared numerous nitrogen derivatives of the hydrogenated quinolines. He also has

succeeded in making similar derivatives of hydrogenated indol. These compounds prepared by

C [redacted] are unique in that they produce pronounced curare action in animals, both by injection

and oral administration without the presence of the methionium group. These compounds (in suitable doses) have been used in a series of over 50 patients by both intramuscular and oral routes. At the low dosage level used they showed specific muscular relaxing effects on selective organs; some of them relax voluntary muscle while others show specific relaxing effect on the musculature of either the urinary tract or the gastrointestinal tract. The voluntary muscle relaxants have been used on patients with paralysis agitans and rheumatoid arthritis. Those which relax the smooth muscle of visceral organs have been used on patients with disturbed bladder function, with multiple sclerosis and prostatic hypertrophy.

(B) [REDACTED]

has continued to cooperate under a written agreement (previously arrived at) in synthesizing starting materials for [REDACTED]. They have supplied hydrogenated quinolines for [REDACTED] and nitrated some of the diphenolic compounds in cooperation with [REDACTED]. It is proposed to continue this cooperation.

45-124

PROPOSED BUDGET

1956 - 1957

Analysis of Body Fluids in Toxic States

Biochemists (2)	\$16,000.00	
Technicians, Laboratory (2)	6,000.00	
Special Equipment	10,000.00	
Supplies	8,000.00	
Clinical Assistant	<u>6,000.00</u>	\$46,000.00

Chemical Synthesis

C [REDACTED] Consultant	2,000.00	
C, B [REDACTED]	4,500.00	
C, B [REDACTED]	12,500.00	
C Chemical Supplies [REDACTED]	<u>6,000.00</u>	\$25,000.00

Toxicology and Pharmacology Laboratory

Animal caretaker and animals	12,000.00	
Pharmacologist and technician	12,000.00	
C [REDACTED] Toxicology	<u>5,000.00</u>	<u>\$29,000.00</u>

TOTAL \$100,000.00

WARNING NOTICE
SENSITIVE INTELLIGENCE
SOURCES AND METHODS INVOLVED

~~CONFIDENTIAL~~

45-125

31 January 1956

MEMORANDUM FOR: CONTROLLER
ATTENTION: Finance Division
SUBJECT: MULLHA, Subproject 45, Additional Authorization No. 4

Under the authority granted in the memorandum dated 13 April 1953, from the DGI to the DD/A and the extension of this authority in subsequent memoranda, Subproject 45 was previously approved. Under the same authority an additional sum of \$100,000.00 has been authorized to cover the subproject's expenses (thereby bringing to a total of \$133,000.00 funds obligated during FY 56), to be charged to Allotment 6-2502-10-000.

SIDNEY GOTTLIEB
Chief
TSS/Chemical Division

**APPROVED FOR
OBLIGATION OF FUNDS:**

Research Director

Mo R 1433

Date:

Distribution:
Orig & 2 - Addressee

- 1 - TSS/OC
- 1 - TSS/TASB
- 1 - TSS/SRB
- ✓ 2 - TSS/CD

(A) TSS/CD: (31 January 1956)

~~CONFIDENTIAL~~

RECEIPT

I hereby acknowledge receipt of the following checks:

- (3) [REDACTED] Official Check #M209528 dated 22 Sept 55,
in the amount of \$33,667.00,
- (3) [REDACTED] Cashier's Check #001122 dated 22 Sept 55,
in the amount of \$10,810.67,
- (3) [REDACTED] Cashier's Check #001123, dated 22 Sep 55,
in the amount of \$432.43,
- (3) all three payable to the [REDACTED]

[REDACTED]

Date: September 23, 1955

#45

45-127

16 September 1955

MEMORANDUM FOR: CHIEF, FINANCE DIVISION

VIA : TSS/Budget Officer

SUBJECT : MKULRA Subproject 45, Invoice #3
Allotment 5-2502-10-001 & 6-2502-10-001

1. Invoice #3 is attached covering the above subproject. This is a final invoice. It is requested that payment be made as follows:

(E)
(B) Cashier's check in the amount of \$33,667.00 drawn on a [redacted] and payable to the [redacted]

2. The check should be forwarded to Chief, TSS/Chemical Division, through TSS/Budget Officer, no later than 30 September 1955.

3. The three invoices covering this subproject aggregate \$100,000.00, and make use of the balance of the FY 55 funds plus the FY 56 funds obligated to date under this subproject. Since it is expected that additional FY 56 funds will be obligated under this subproject, the files on this project should not be closed.

SIDNEY GOTTLIEB
Chief
TSS/Chemical Division

Attachments:
Invoice & Certifications

Distribution:
Orig & 2 - Addressee
1 - Comptroller
1 - TSS/FASB
2 - TSS/CD

I CERTIFY THAT FUNDS ARE AVAILABLE:

OBIGATION REFERENCE NO. 323
5-2502-10-001 667.00
CHARGE TO ALLOTMENT NO. 6-2502-10-001 33,667.00

(A)
TSS/CD (13 September 1955)

AUTHORIZING OFFICER
CHECK # 41400508 THE AMOUNT OF \$ 33,667
RECEIVES. 27 ^{SEP} 1955

(A)

6 August 1953

MEMORANDUM FOR: CONTROLLER

ATTENTION : Finance Division

SUBJECT : MUMFRA, Subproject 45, Additional Authorization No. 3

Under the authority granted in the memorandum dated 13 April 1953, from the DCI to the DD/A and the extension of this authority in subsequent memoranda, Subproject 45 was previously approved. Under the same authority an additional sum of \$33,000.00 has been authorized to cover the subproject's expenses (thereby bringing to a total of \$33,000.00 funds obligated during FY 56), to be charged to Allotment 6-2502-1D-001.

APPROVED FOR
OBLIGATION OF FUNDS:

SIBBY GOTTIER
Chief
TSS/Chemical Division

Research Director

MOR 223

Date:

Distribution:

- Orig & 2 - Addressee
- 1 - TSS/OC
- 1 - TSS/FASB
- 1 - TSS/SRB
- ✓ 2 - TSS/CD

(A) ~~XXXXXXXXXX~~

~~XXXXXXXXXX~~
~~XXXXXXXXXX~~
~~XXXXXXXXXX~~

45-129

SUB. 45

RECEIPT

I hereby acknowledge receipt of the following:

Cashier's Check No. UM13623 in the amount of \$33,000.00, dated July 8, 1955, drawn on the [REDACTED], payable to the [REDACTED]

(E)
(B)

(B)(C)

Date: 7-19-55

45-130

RECEIPT

I hereby acknowledge receipt of the following:

(E) Cashier's Check No. UM13623 in the amount of \$33,000.00, dated July 8, 1955
(B) drawn on the [REDACTED] payable to
the [REDACTED]

(C) [REDACTED]

Date: July 13, 1955

15-131

MEMORANDUM RECEIPT

12 JUL 1955

DATE

TO:

FROM:

SUBJECT:

I hereby acknowledge receipt of the following:

(E) ~~_____~~ check # UM13623
 (B) payable to ~~_____~~ in the amount of 33,000.00
 Invoice # 2 subject 45

(A)

Please return _____ signed copy(ies) of this receipt

SIGNATURE OF RECEIPT

To _____
FORM NO. 38-68
MAR 1949

12 JUL 1955
DATE RECEIVED

~~SECRET~~

45-132

28 June 1955

MEMORANDUM FOR: CHIEF, FINANCE DIVISION

VIA : TSS/Budget Officer

SUBJECT : Project MULLER, Subproject 45
Invoice 2, Allotment 5-2502-10-001

(E)
(B) 1. Invoice 2 for Subproject 45 of Project MULLER is attached. Other invoices will follow later. It is requested that payment be made by cashier's check in the amount of \$33,000.00. The check should be drawn on [redacted] bank and made payable to the [redacted].

2. Please send the check to Chief, TSS/Chemical Division through TSS/Budget Officer by 11 July 1955.

STUART COTLER
Chief
TSS/Chemical Division

Attachments:
Invoice & Certifications

Distribution:
Orig & 2 - Addressee
1 - Comptroller
1 - TSS/FASB
2 - TSS/CD

(A) [redacted]

[redacted]

45-13
[REDACTED]
INVOICE 2

28 June 1955

For services _____ **\$33,000.00**

(B) [REDACTED]
CERTIFICATIONS

(1) It is hereby certified that this is Invoice 2 applying to Subproject 45 of Project MKULTRA, that performance is satisfactory, that the services are being accomplished in accordance with mutual agreements, that a detailed agenda of the payments and receipts is on file in TSS/CD, that this bill is just and correct and that payment thereof has not yet been made.

Date:

SIDNEY GOTTLIEB
Chief, TSS/CD

(2) It is hereby certified that this invoice applies to Subproject 45 under Project MKULTRA which was duly approved and that the project is being carried out in accordance with the memorandum dated 13 April 1953 from the DCI to the DD/A, and the extension of this authority in subsequent memoranda.

Date:

(A) [REDACTED]
Research Director

45-137

~~CONFIDENTIAL~~

25 May 1955

MEMORANDUM FOR: THE CONTROLLER
ATTENTION: Finance Division
SUBJECT: Project MULLER, Subproject 45

Under the authority granted in the memorandum dated 13 April 1953 from the DCI to the ID/A, and the extension of this authority in subsequent memoranda, an additional \$27,000 of the over-all Project MULLER funds have been obligated to cover the subproject's expenses.

SIDNEY GOYLLIER
 Chief, TSS/Chemical Division

APPROVED FOR OBLIGATION OF FUNDS:

 Research Director

Date: _____

Mo R-201

- Distribution:**
 Orig. & 2 - Addressee
 1 - TSS/OC
 1 - TSS/FASB
 1 - TSS/SRB
 2 - TSS/CD

(A) ~~CONFIDENTIAL~~

45-134

45

CERTIFICATE

D.R.G.

I hereby certify receipt of Cashier's Check No. MN191739, in the
amount of \$33,333.00, drawn on the ^(E) [REDACTED]
payable to the ^(B) [REDACTED]

(C) [REDACTED]

Date: April 14th 1955

MEMORANDUM RECEIPT

APR 13 1955
DATE

TO:
FROM:
SUBJECT:

*Invoice #1
Subproject 15*

I hereby acknowledge receipt of the following:

(E)

[REDACTED]

CHECK # 11731 IN THE AMOUNT OF \$3333
RECEIVED.

Please return _____ signed copy(ies) of this receipt

(A)

[REDACTED]

TO _____
FORM NO. 36-60
MAR 1949

1 April 1955

MEMORANDUM FOR: CHIEF, FINANCE DIVISION

VIA : TSS/Budget Officer

SUBJECT : Project NEHLIRA, Subproject No. 45
 Invoice #1, Allotment 5-2502-10-001

Invoice No. 1 for Subproject 45 of Project NEHLIRA is attached. Other invoices will follow later. It is requested that payment be made by cashiers check in the amount of \$33,333.00, payable to the [REDACTED] B

B [REDACTED] The check should be sent to Chief, TSS/CD through TSS/Budget Officer by Wednesday, 6 April 1955.

SIDNEY GOTTLIEB
 Chief
 TSS/Chemical Division

Attachments:
 Invoice & Certifications (E)

Distributions:
 Orig & 2 - Addressee
 1 - Comptroller
 1 - TSS/FASB
 2 - TSS/CD

CHECK # 19739 IN THE AMOUNT OF \$33,333
 RECEIVED APR 13 1955

(A) [REDACTED]

BY THAT FUNDS ARE AVAILABLE

APR 13 1955

5-2502-10-001

4 APR 1955

AUTHORIZING OFFICER [REDACTED]

21 March 1955

MEMORANDUM FOR: COMPTROLLER

ATTENTION : Finance Division

SUBJECT : Project NEULTRA, Subproject 45

Under the authority granted in the Memorandum dated 13 April 1953 from the DOI to the DD/A, and the extension of this authority in subsequent memoranda, Subproject 45 has been approved, and \$40,000.00 of the over-all Project NEULTRA funds have been obligated to cover the subproject's expenses and should be charged to Allotment 5-2502-10-001.

SIMNEY GOTTLIEB
Chief
TSS, Chemical Division

APPROVED FOR OBLIGATION
OF FUNDS:

MOR-180

Research Director

Date: _____

Distribution:

Orig & 2 - Addressee

- 1 - TSS/OC
- 1 - TSS/FASB
- 1 - TSS/SRB
- ✓ 2 - TSS/CD

(A)

45-138

UNCLASSIFIED CONFIDENTIAL SECRET
(SENDER WILL CIRCLE CLASSIFICATION TOP AND BOTTOM)

CENTRAL INTELLIGENCE AGENCY
OFFICIAL ROUTING SLIP

TO	INITIALS	DATE
1 TSS/OC	[REDACTED]	11 Aug.
2 TSS/CD		
3		
4		
5		

FROM	INITIALS	DATE
1 TSS/CD	[REDACTED]	7/28
2		
3		

(A)

(A)

- APPROVAL
- ACTION
- COMMENT
- CONCURRENCE
- INFORMATION
- DIRECT REPLY
- PREPARATION OF REPLY
- RECOMMENDATION
- SIGNATURE
- RETURN
- DISPATCH
- FILE

Remarks:

SECRET CONFIDENTIAL UNCLASSIFIED

[REDACTED]

DRAFT:
21 March 1955

(A)

MEMORANDUM FOR: THE RECORD

SUBJECT : Project MKULTRA, Subproject 45

(B)

1. The scope of this project is intended to encompass all those activities now engaged in by the [REDACTED], in its own facilities under the direction of TSS, Chemical Division. These activities will take the form of three lines of biochemical investigation; namely, the curare-like effect of certain thiols, the preparation of hydrogenated quinolines and indole alkaloids, and the continued study of diphenolic compounds. In addition to the above investigations, the present biological testing and assaying techniques will be elaborated and broadened to include cardiovascular and anticarcinogenic effects of compounds resulting from the above programs.

(B)

2. The attached proposal from [REDACTED] indicates the extent of the investigations that his facilities will allow him to carry out on the materials developed in the three lines of research referred to in paragraph 1, as well as certain other materials of interest to TSS/CD. [REDACTED] also serves as a general consultant to this Division and provides cover and cut-out facilities to the Agency.

(C)

(C)

3. The total cost of this project for a period of one year will not exceed \$100,000.00. At the present time, the sum of \$40,000.00 is being committed, the balance of the total to be committed at a later date.

4. [REDACTED] has been granted a TOP SECRET clearance by the Agency, and is fully capable of protecting the security of the Government's interest in this matter.

APPROVED FOR OBLIGATION OF FUNDS:

[REDACTED]
TSS, Chemical Division

(A)

APPROVED:

[REDACTED]

(A)

[REDACTED]

(A)

for Research Director

Chief, TSS/Chemical Division

Date: 24 Mar 55

APPROVED FOR ADDITIONAL APPROPRIATION OF \$27,000:

Attachments:
Proposal

[REDACTED]
Research Director

(A)

Original Only.

Date: 2-1955

[REDACTED]

[REDACTED]

APPROVED FOR ADDITIONAL APPROPRIATION OF \$33,000.00:

[REDACTED]

(A)

Research Director

Date:

AUG 10 1955

[REDACTED]

[REDACTED]

RESEARCH PROPOSAL [REDACTED] (B)

1955 - 1956

Three lines of biochemical investigation are proposed for 1955.

These are being pursued with [REDACTED] (C) as senior consultant, and the compounds are being prepared, as in 1954, by [REDACTED] (C) (B)

[REDACTED] (B) (C) at the [REDACTED] (B) and [REDACTED] (C) the [REDACTED] (B) (C). The chief interest in [REDACTED] (C) work for 1955 will be in the thiol compounds, some of which have carboxy groups, as well as amine groups, and some of which have either curare or soporic action.

[REDACTED] (C) will continue his work on the diphenolic compounds.

In this work the nitrogen for the first time will be placed directly on the ring. A wide variety of biological effects is found in these compounds. The work of [REDACTED] (C) will center about the hydrogenated quinolines and the indole alkaloids.

Not only will the propanol linkage be used in the synthesis of these new compounds, but also the methyl propanol linkage and a linkage in which the carboxy group substitutes for the hydroxyl in the propanol.

Biological testing of these compounds will be more elaborate than previously and the assay technics will be broadened to include work on the tracheal rings of the guinea pig, hyperthermia in rabbits, blood pressure and cardiovascular effects and anticarcinogenic effects.

PROPOSED BUDGET FOR CHEMICAL SYNTHESIS
1955 - 1956

(C) [REDACTED] Consultant chemist (fees and travel)	\$ 3,000.00
(C) [REDACTED] (Budget partially supplied through the [REDACTED] as grant)	(B) 12,000.00
(C) [REDACTED] (Budget partially supplied through the [REDACTED])	(B) 15,000.00
Biochemist	10,000.00
Synthetic starting materials [REDACTED]	(B) 12,500.00
Laboratory Supplies	<u>7,500.00</u>
Subtotal	60,000.00
Biological and Pharmacological Testing	
Clinical part-time assistants	8,000.00
Pharmacological, technical	8,000.00
Research Pharmacologist	8,000.00
Animals and animal maintenance	3,000.00
Tissue examinations	3,000.00
Contribution to maintenance of [REDACTED]	(B) 10,000.00
Total	\$ <u>100,000.00</u>

[REDACTED]

INVOICE CHECK SHEET

MAINT Subproject 45

Date of Original Authorization	Period Covered	Time Extended to	Allotment Number	Amount of Obligation
24 Mar 55	1 year		5-2502-10-001	40,000.00

Additional Authorizations	Period Covered	Time Extended to	Allotment Number	Amount of Obligation
25 May 55			5-2502-10-001	27,000.00
3 Aug 55			6-2502-10-001	33,000.00
31 Jan 56	1 year		6-2502-10-001	100,000.00
17 Jan 57	1 year		7-2502-10-001	100,000.00
21 Jan 58	1 year		8-2502-10-001	65,200.00
27 Jan 59	10 years		9-2502-75-102	71,500.00

Invoice No.	Date	Amount	Balance
1	4/1/55	33,333.00	6,667.00
2	6/23/55	33,000.00	667.00
3	9/16/55	33,667.00	0
4	2/2/56	33,000.00	67,000.00
5	23 May 56	33,000.00	34,000.00
6	10 Sept 56	34,000.00	0
7	25 Jan 57	33,333.34	66,666.66
8	3 May 57	33,333.33	33,333.33
9	17 Oct 57	33,333.33	0
10	28 Jan 58	21,733.33	43,466.67
11	22 Nov 58	21,733.33	21,733.34
12	22 Sept 58	21,733.34	0

110
33,333.34
66,666.66
1/3 21,733.33
65,200
5
3
24
18

REMARKS: