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FAMILY COMMITTEE
Minutes of the Sixth Meeting
April 20, 1950.

JAA 20006982 0000

A. Attendance.

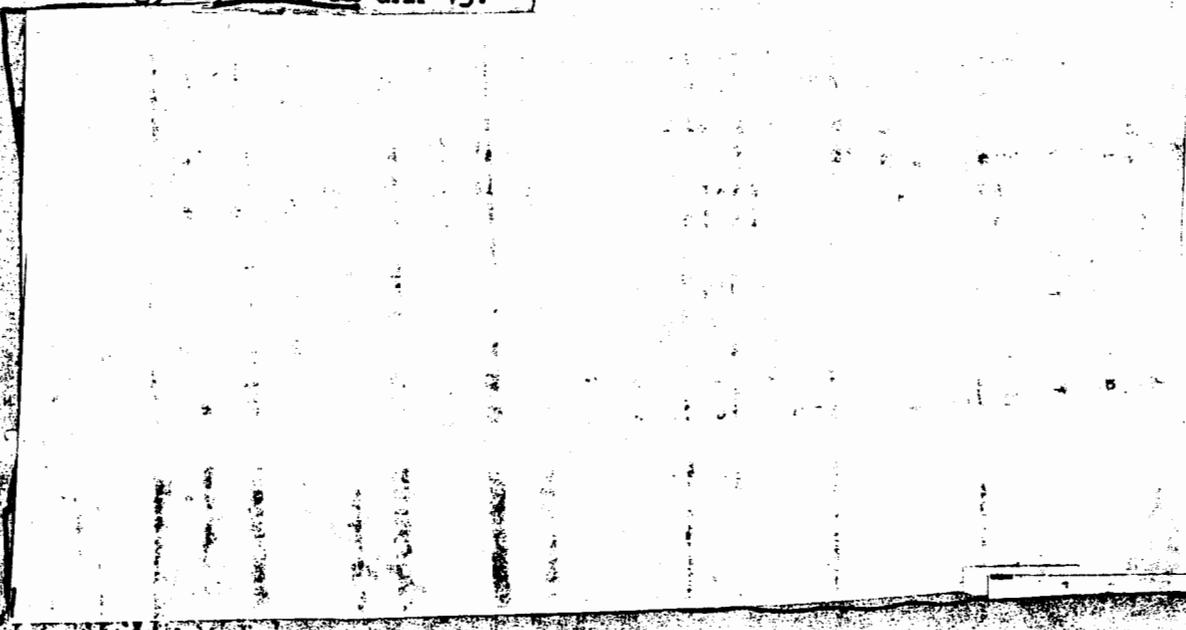
The sixth meeting of the Family Committee was held Thursday, April 20th at 1:15 PM in Room B-117. Those present were

- N. E. Bradbury
- J. C. Clark
- F. de Hoffmann
- D. K. Froman
- R. W. Goranson
- M. G. Holloway
- E. R. Jette
- D. P. MacDougall
- J. C. Mark
- R. F. Taschek
- E. Teller, Chairman

| DEPARTMENT OF ENERGY DECLASSIFICATION REVIEW | |
|--|------------------------------------|
| 1ST REVIEW DATE: 8-18-97 | DETERMINATION (CIRCLE NUMBER(S)) |
| AUTHORITY: OAC OADC EADD | 1. CLASSIFICATION RETAINED |
| NAME: [Signature] | 2. CLASSIFICATION CHANGED TO: |
| 2ND REVIEW DATE: 4/29/98 | 3. CONTAINS NO DOE CLASSIFIED INFO |
| AUTHORITY: [Signature] | 4. COORDINATE WITH: |
| NAME: [Signature] | 5. CLASSIFICATION CANCELLED |
| | 6. CLASSIFIED INFO BRACKETED |
| | 7. OTHER (SPECIFY): |

B. Minutes of Fifth Meeting.

The Committee unanimously adopted the minutes of the Fifth Meeting, reported in GMX-43.



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At a future date one may wish to discuss pellets again. Mark pointed out that one might conceive of a situation, where-around October 1950-some major program changes had taken place and that consequently

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certain testing facilities and manpower might become available making it seem reasonable to consider the pellets again.

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[REDACTED]

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[REDACTED]

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D. [REDACTED]

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Goranson reported on the progress of IBM problems F-4 and F-5. Table I shows the essential results. It should be noted that there is a slight calculational error in F-5, which is now being recalculated, but which is not likely to change the results significantly.

[REDACTED TABLE]

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Having decided that a large yield was intrinsically desirable, discussion turned to the desirable thickness of WR. 1

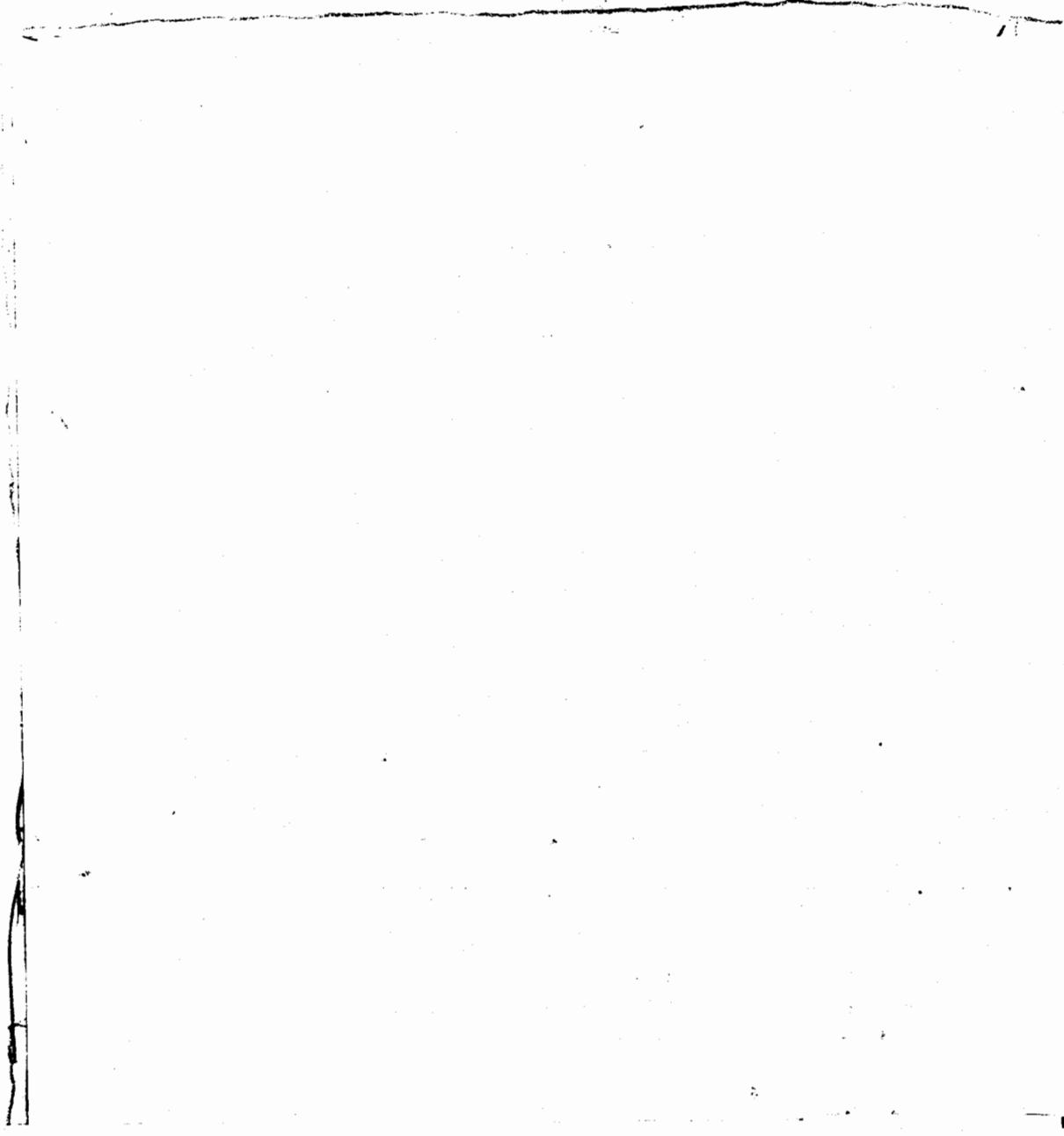
The group then turned to a more detailed examination of this model.

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The specifications for these IBM runs are given in Table II.

It was estimated that the IBM runs contemplated would take of the order of four weeks to complete.



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Jette assured the group that this could be done without any essential change of procedure for the present initiators and would present no complications.

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E. New York Hippo Calculations.

Teller reported on his trip to New York. At present the results obtained in New York seemed close to those obtained by hand calculations at Los Alamos. It is estimated that the calculations will be finished within three or four weeks and that by the middle of May the gun calculations can be put on the IBM machine in New York, ready by the middle of June.

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F. [Redacted]

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MacDougall suggested that it would be advisable at an early date to begin to worry about allocation of responsibilities for the detailed design of this space.

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In order to do this most effectively, it was suggested that Teller describe the present investigations with respect to this space and to inform GMX at the earliest time about any general conclusions or limitations that could be stated with respect to the space under discussion.

Teller replied that at present the following three theoretical lines were being pursued in this respect.

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2. Detailed calculations concerning opacities of material are proceeding in Chicago.

G.

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Holloway explained that July 1st would present a definite benchmark as far as scheduling is concerned because it was on that date that we would have to begin to think about assembling a specific set of models to be used at Eniwetok. This would necessarily channel the development work along the lines of this Eniwetok model.

[redacted] The detailed analysis of this shot indicates considerable doubt as to its validity. Table III shows the questions which W Division needs to have answered in the near future in order to proceed with their program. The date is the one suggested by Holloway.

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Clark believed that J Division could give a firm answer to this question by the suggested deadline of June 1, 1950.

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W Division preferred the horizontal position slightly because it makes the testing program easier but wishes to emphasize that it has no objection in principle against a vertical position.

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Clark said that he would try to get a decision from J Division by May 1st if at all possible and report to the Family Committee.

With respect to (c) Holloway reported that discussions were proceeding satisfactorily between W Division and CMR to provide for

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While this program is more costly, it is indicated because of the short time scale involved.

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W desires that a June 1st date be set on Item (c) in order to count with the possibility that the first model will be imperfect and considerable changes will have to be worked on in the remaining time between June 1st and the Spring 1951 tests.

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It is impossible to determine this with the present pieces because these are so hot that they give misleading results. In consequence, W Division requests that a prototype be fabricated at the earliest possible date consisting of real oralloy and with the thought that this particular material might eventually be used in the Spring 1951 tests. In this connection, Holloway reported his worry concerning the strength of the oralloy.

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H. Next Meeting.

The next meeting is to concern itself primarily with scheduling.

Richard de Hoffmann

Executive Secretary

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Distribution:

- 1A N. E. Bradbury
- 2A W. D. Bright
- 3A Stanley W. Burriss
- 4A J. S. Clark
- 5A D. K. Froman
- 6A Roy W. Goranson
- 7A A. C. Graves
- 8A G. K. Hess
- 9A M. G. Holloway
- 10A E. R. Jette
- 11A " " "
- 12A J. M. B. Kellogg
- 13A E. Konopinski
- 14A D. P. MacDougall
- 15A " " "
- 16A D. P. MacMillan
- 17A J. H. Manley
- 18A Carson Mark
- 19A Hugh Paxton
- 20A F. Reines
- 21A " "
- 22A " "
- 23A A. R. Sayer
- 24A R. F. Taschek
- 25A Edward Teller
- 26A " "
- 27A " "
- 28A " "
- 29A " "
- 30A J. von Neumann
- 31A J. A. Wheeler
- 32A Document Room
- 33A " "
- 34A " "
- 35A " "

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TABLE I

| IBM Run | Characteristics | Maximum Compression of Active Material | No. of crits * at Maximum Compression | * σ | Yield * |
|---------|-----------------|--|---------------------------------------|------------|---------|
| F-4 | | | | | |
| F-5 | | | | | |

* Calculations of Smith and Taylor

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TABLE III



ITEM:

SUGGESTED
DATE:

(a)

1 June 1950

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(b)

1 July 1950

(c)

1 June 1950

(d)

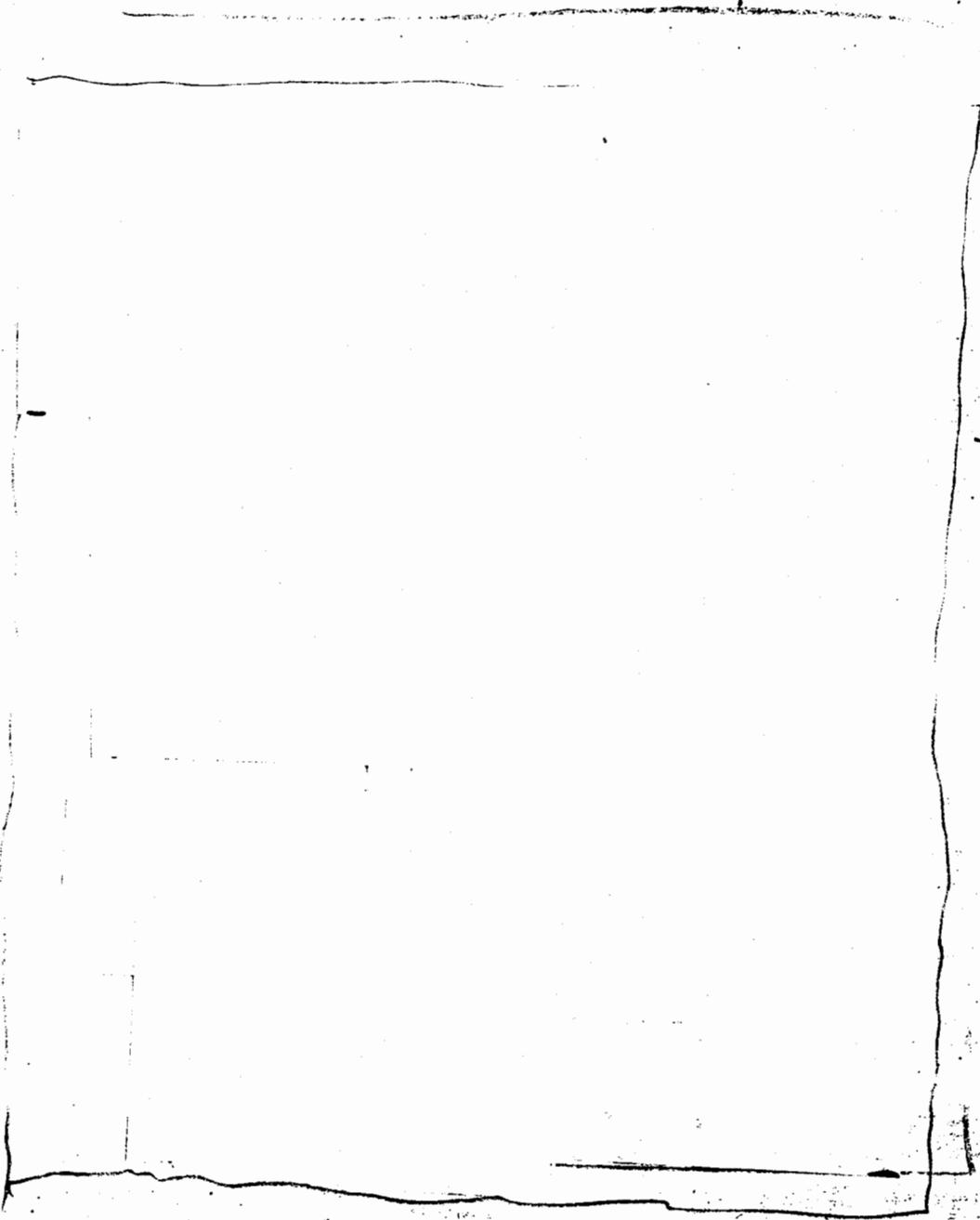
1 June 1950

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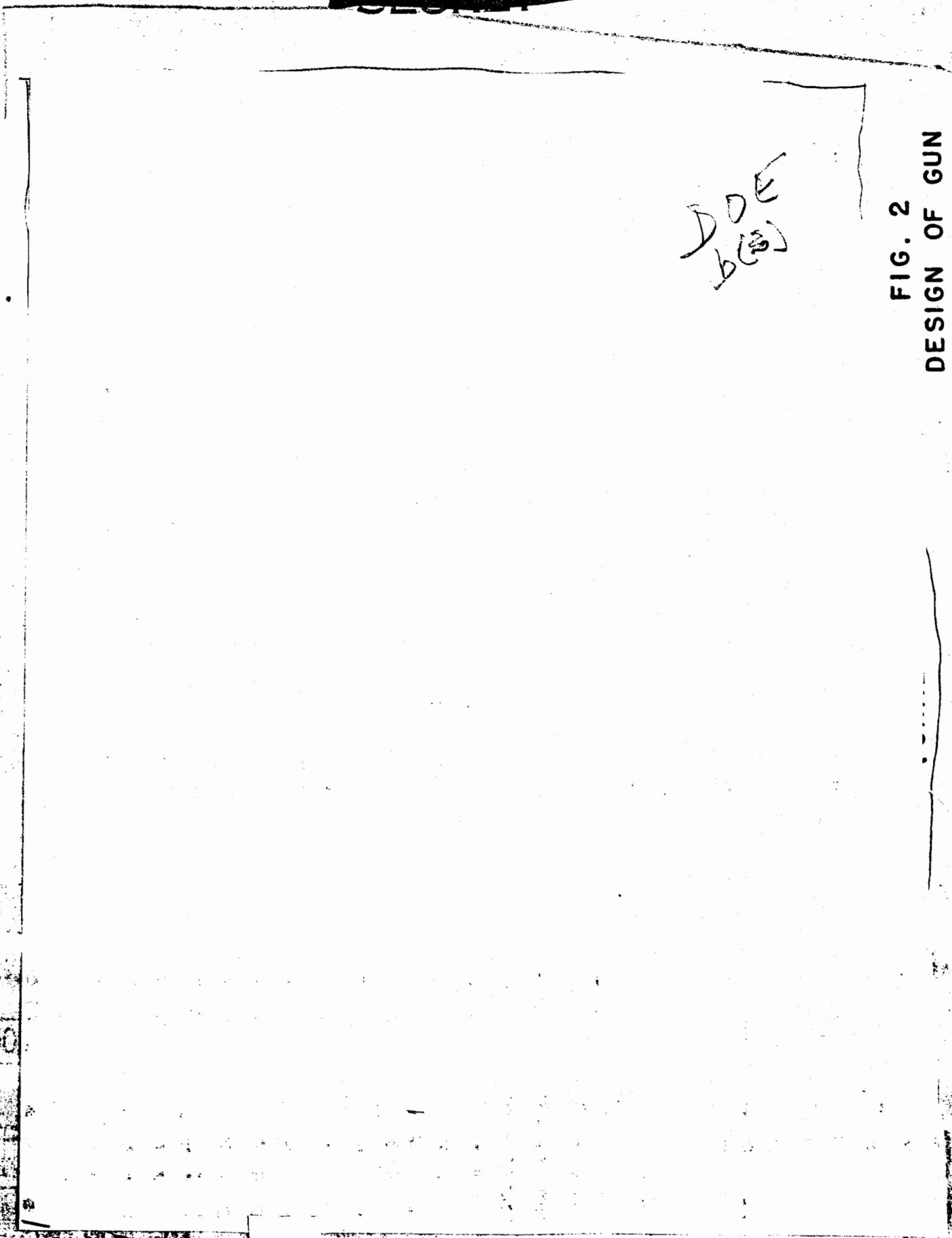
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FIG. 1

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FIG. 2
DESIGN OF GUN

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