S-65

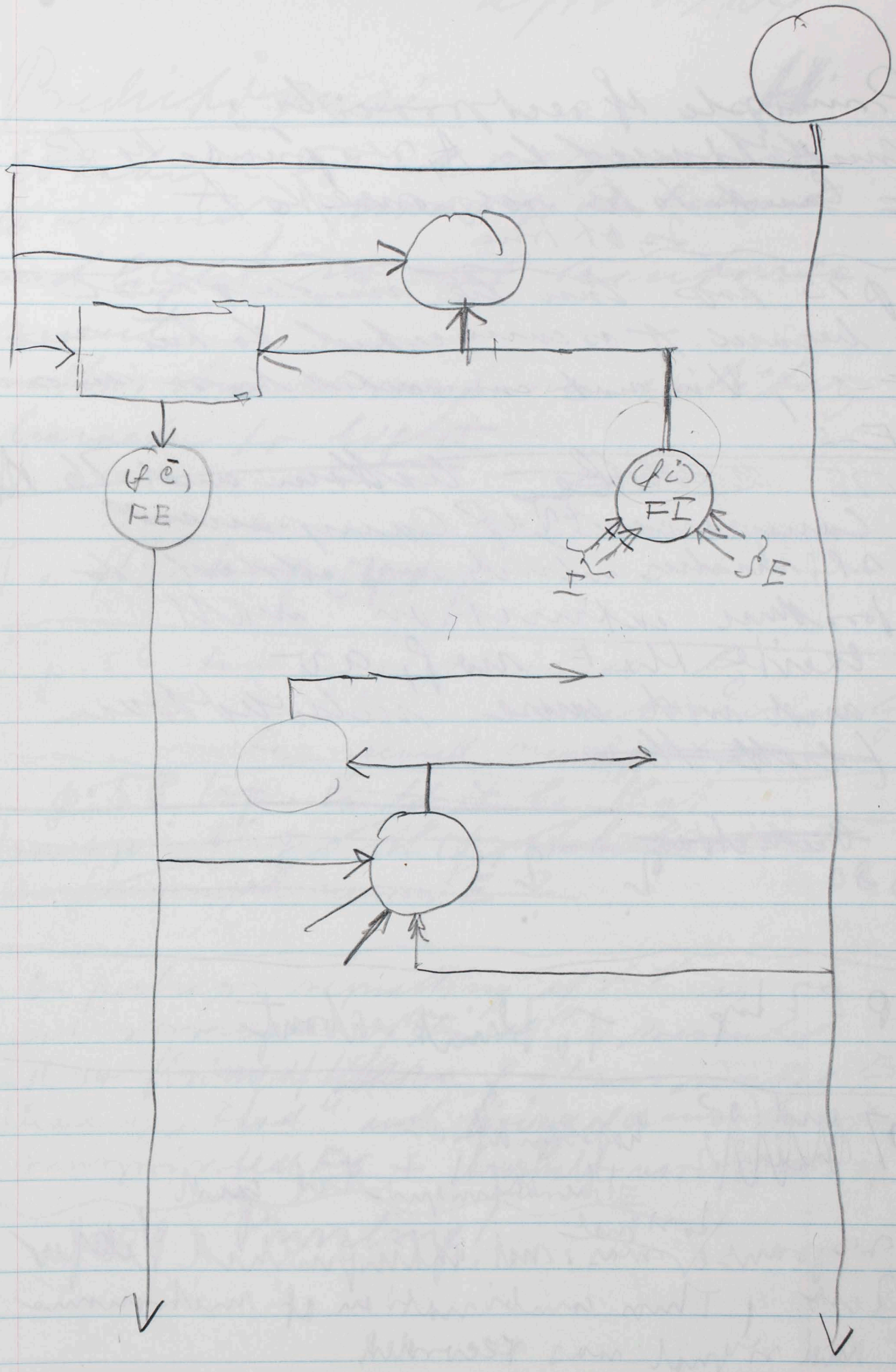
TIME BOOK

The SPIRAL

69¢

WIDE MARGINAL RULED No. 5858 - 3 HOLE PUNCHED

A PRODUCT OF Westab DAYTON 2, OHIO


(f ē)
FE
(f i)
FI
I
E

Principle of reciprocity:
conditioned to A, response to B
= Cond. to B response to A
Is it true

p75 top Can be understood
because A is connected to two many
E-s, V is not connected to so many
E-s

p.75 ~~[illegible]~~ bottom and 76 ~~[illegible]~~
Component V of Compound
stimulus which was added to
produce extinction will
excite the Es no f, av
and will cause inhibition
~~(better than~~

~~Prediction~~
p80 ? ?

p82 top To think about

107 and 108 ~~[illegible]~~ Explanation
The extinguished cond
response to signal was not extinguished below
zero, Thus combination of metronome
and signal was recorded

Apr 17 '64

H

Predictions:

Establish cond response to sound; now give sound and light no ~~rei~~ reinforcement.

This should confirm inhibitory character to light

To think: p 54. top

p. 56 can be explained by E → E connections only
note second mark p. 57

p. 58 top. ~~Could it be that transpinting with (f) stabilises the transpinted neurons E?~~

→ On perhaps signalling of F* is much stronger if "Food" is presented and no firing of ~~[illegible]~~ f-transpinted Es than "no Food" and firing of a number of transpinted E-s + threshold variations of all neurons E

p 59 Puzzling!

Compound stimulus theory:

positive for a / positive for b

negative for a+b

x a+f
y b+f
z a+b no f

} these will be excited by a+b also

but this will not be excited as highly by either a and b as by a+b

therefore ~~we~~ compound stimulus can inhibit

a+b positive
a negative
b negative

z a+b+f
x a+f
y b+f

γ ~~a no f~~
α $\gamma < \alpha$ ~~this will~~
β $\gamma < \beta$ $\alpha = \beta$

a alone ~~[illegible]~~ will not excite b+f gives ~~[illegible]~~ (a+0)

b alone will not excite a+f ~~[illegible]~~ (b+0)

these

Text Portion pt 8

~~It is the basic char~~

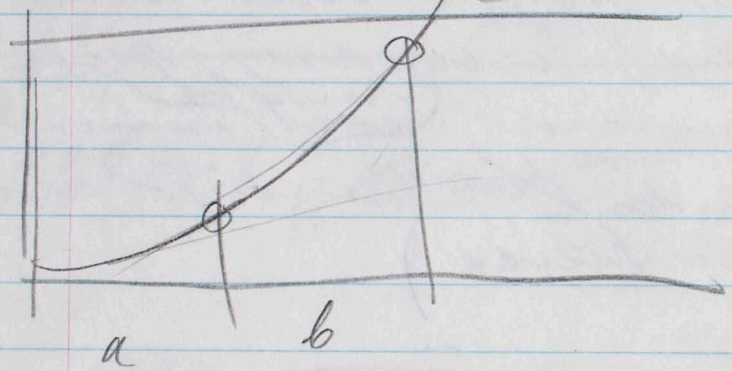
~~Our model is characte~~

Acc to the notions have adopted ~~[illegible] a memory~~ every "unit of memory" types down one neuron. ~~but the unit of memory can~~ (A unit of memory ~~can~~ might consist of information of the complexity of a simple sentence)

~~There is no the efficacy of a synapse never changes~~

Once a synapse has become functional its ~~never ch~~ degree of efficacy never changes thereafter ~~and mean a~~ but ~~unit of memory~~ when a unit of memory is recorded synapses which where not functional before, become functional.

Those which have been transported with a + b + f may have small input from a may have small input from b for these E will be small amounts to assuming threshhold



Now ~~at~~ reverse!

compound inhibitory

Components ~~stimulat~~ positive

γ B-s having a + b no f

α a; no b; no f

β no a, b; no f

{ (a) + O(b) + O(f)

We must have

$$\cancel{x^* \geq x + \xi z} \qquad \xi < 1$$

$$\cancel{y^* \geq y + \eta z} \qquad \eta < 1$$

ξ is overlap fraction $\qquad \dfrac{a+f}{a+b+f}$

η " " " $\qquad \dfrac{b+f}{a+b+f}$

~~For inhib by a alone~~

We must have ~~for inhib~~ :

$$\alpha + \varepsilon\gamma \cdot \cancel{\frac{a+f}{a+b+f}} \leq \alpha^*$$

~~assuming~~ where α^* is number of E-s transpinted with a and no f

$$\beta + \varepsilon\gamma \cdot \frac{b+f}{a+b+f} \leq \beta^*$$

For positive response to compound we must have

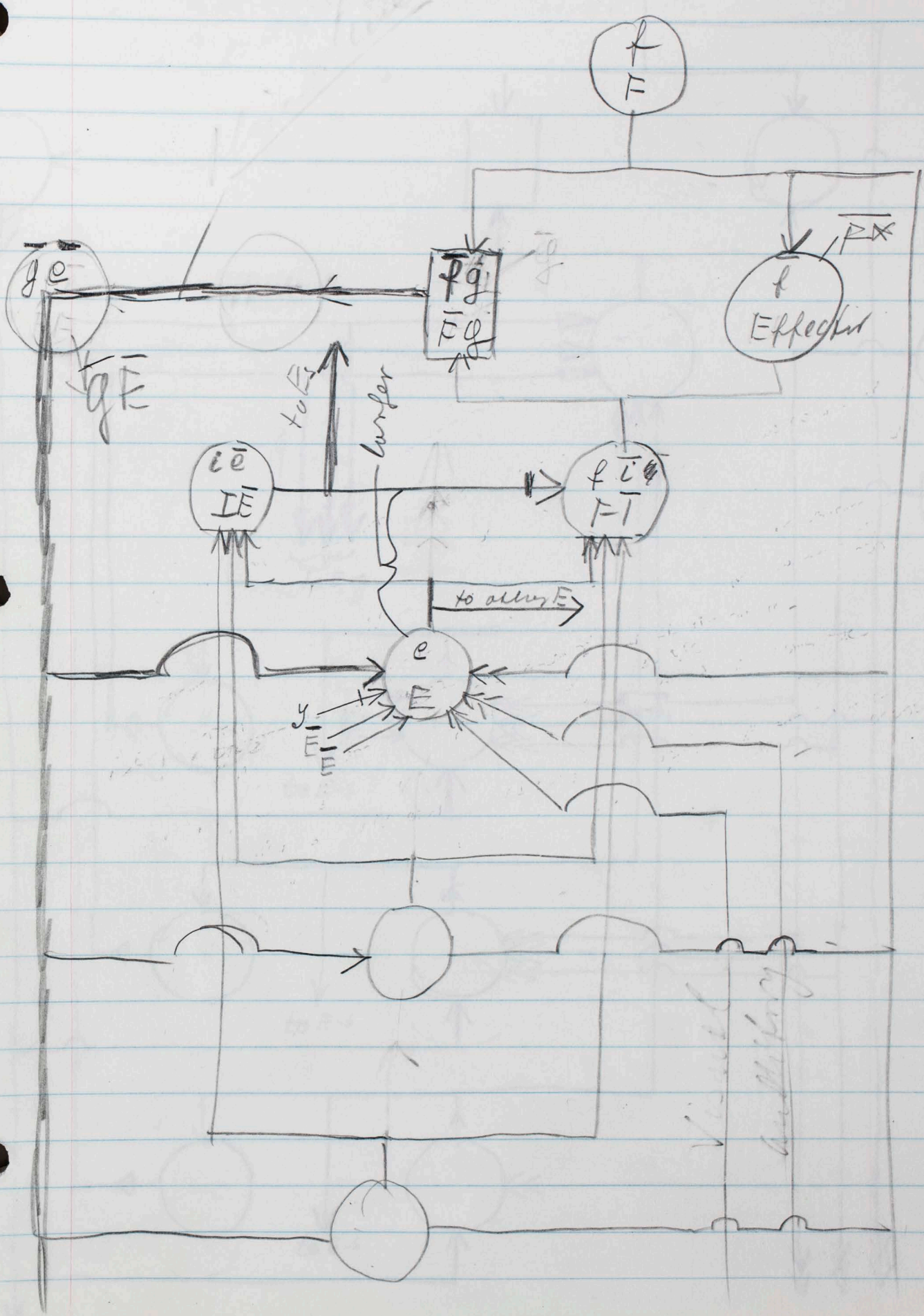
$$\alpha + \beta + \gamma \geq \alpha^* + \beta^* \qquad \alpha + \beta + 2\varepsilon\gamma < \alpha^* + \beta^*$$

$$2\varepsilon < 1$$

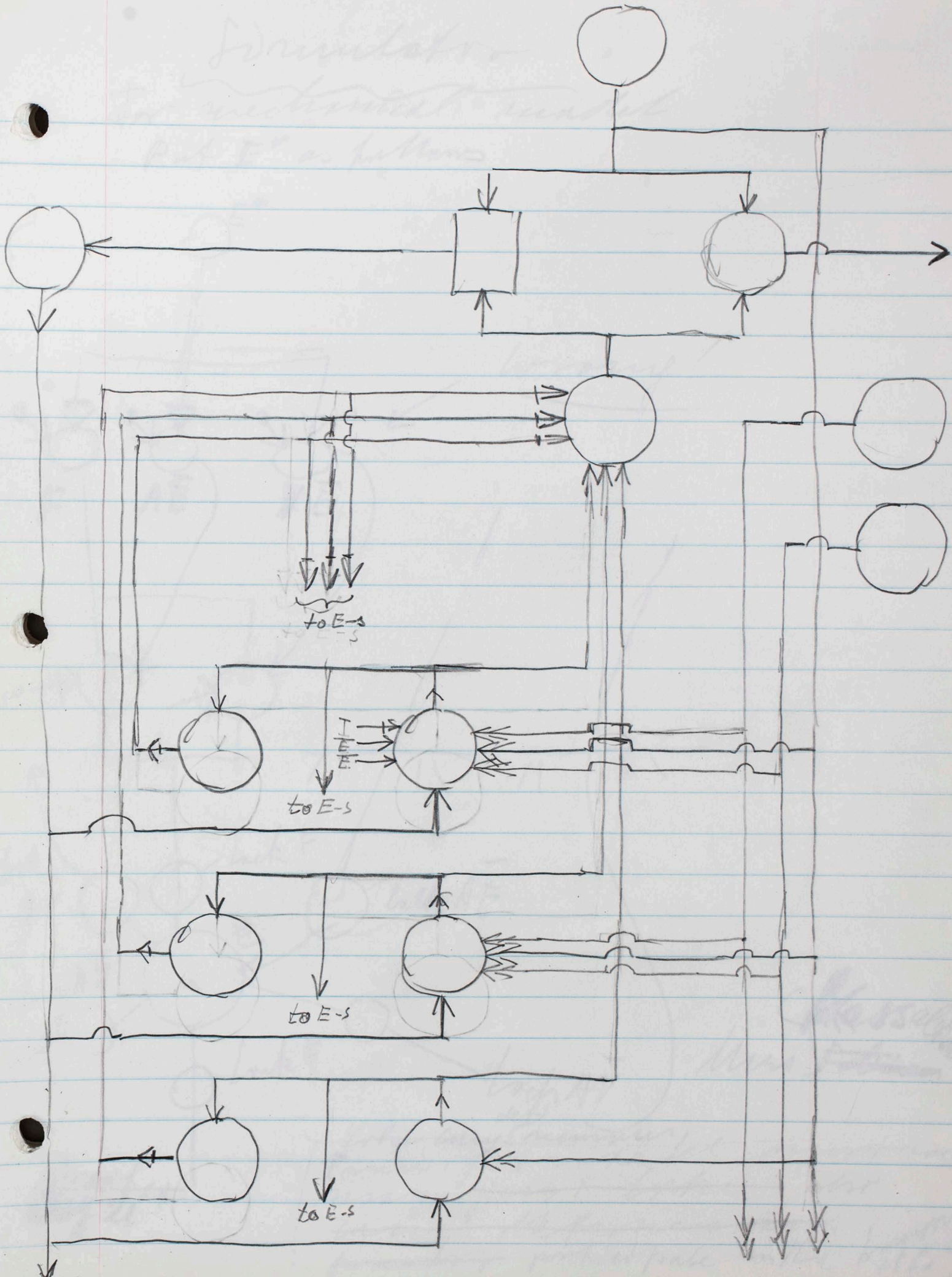
$$\varepsilon < \frac{1}{2}$$

or volume control

This work was supported by a Research Grant of the Gen Med Adv of the Nat Inst of Health administered by the Univ of Chicago



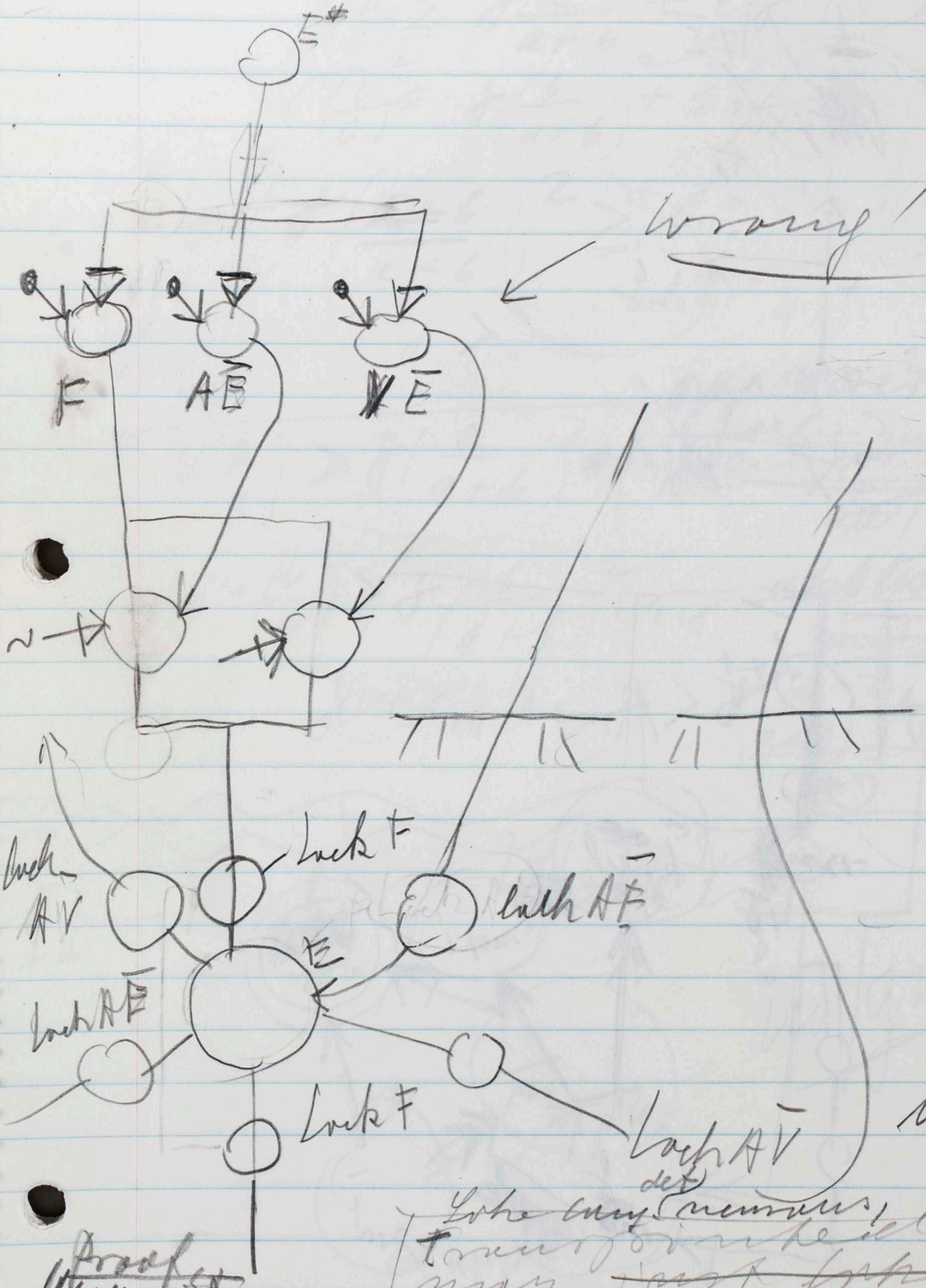
f
F
$\bar{g}\bar{e}$
$\bar{g}\bar{E}$
$\bar{f}\bar{g}$
$\bar{F}\bar{g}$
$\bar{F}\bar{x}$
f
Effector
to E
Larger
$i\bar{e}$
$I\bar{E}$
$f\bar{i}$
$F\bar{I}$
to other E
e
E
y
$\bar{E}$
$\bar{E}$


to E-s
I
E
E
to E-s
to E-s
to E-s

Simulator

For mechanical model

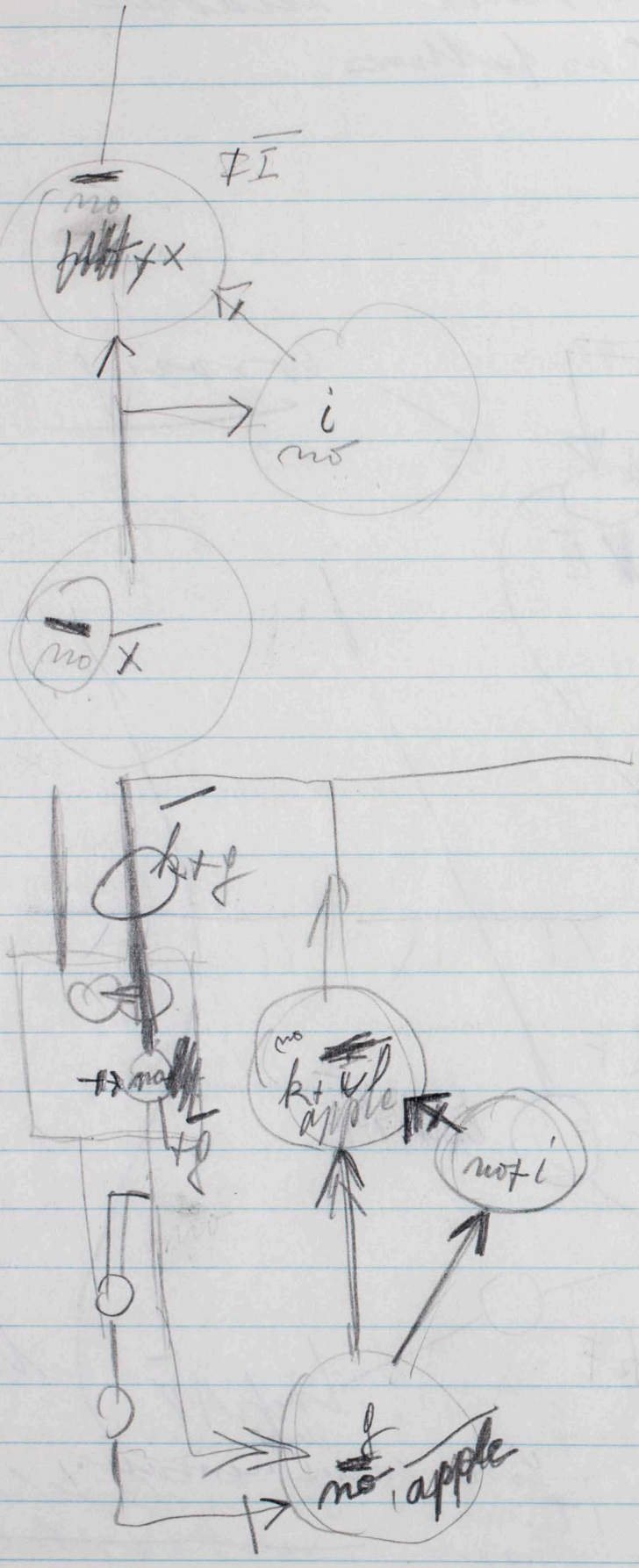
Put E^* as follows



Mrs ~~Fabian~~ Kassabian

Proof May 21st

Lobe carry det neurons, transformed neuron may ~~just lobe~~ also ~~carry det neurons~~ ~~transf~~ participate in the transform of a n



no
i
no
no
k+g
no
k+ul
apple
no+i
g
no
apple

Extinguished for compound established for compound

$\alpha a + \beta b = f(a+b)$ leave

$\alpha\left(\frac{a}{a}\right)^2 \geq f\left(\frac{a}{a+b}\right)^2 + \varepsilon_1 f(1)^2$ leave

$\beta\left(\frac{b}{b}\right) \geq f\left(\frac{b}{a+b}\right)^2 + \varepsilon_2 f(1)^2$

$(\varepsilon_1+\varepsilon_2)f + f\left(\frac{a+b}{a+b}\right)^2 \geq \alpha\left(\frac{a}{a}\right)^2 + \beta\left(\frac{b}{b}\right)^2 + f\frac{1}{4} + f\frac{1}{4} + (\varepsilon_1+\varepsilon_2)f$

$\frac{a}{a+b} = \frac{1}{2}$ $f >$

opposite problem

extinguished for compound

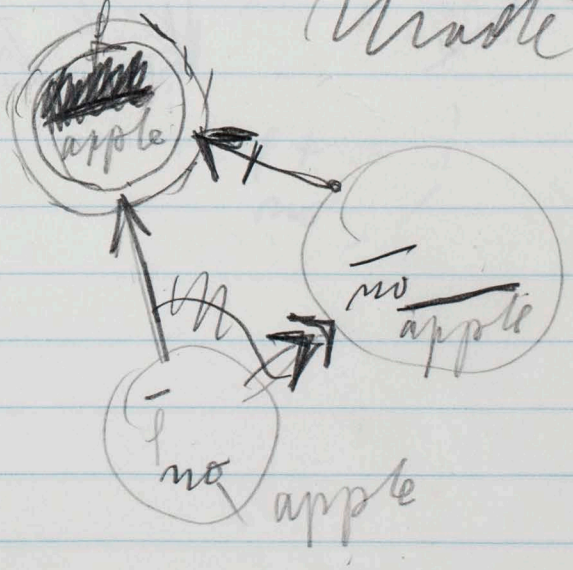
established for components

$\alpha\left(\frac{a}{a}\right) > f\left(\frac{a}{a+b}\right)^2 + \varepsilon_1 f$

$\beta\left(\frac{b}{b}\right) > f\left(\frac{b}{a+b}\right)^2 + \varepsilon_2 f$

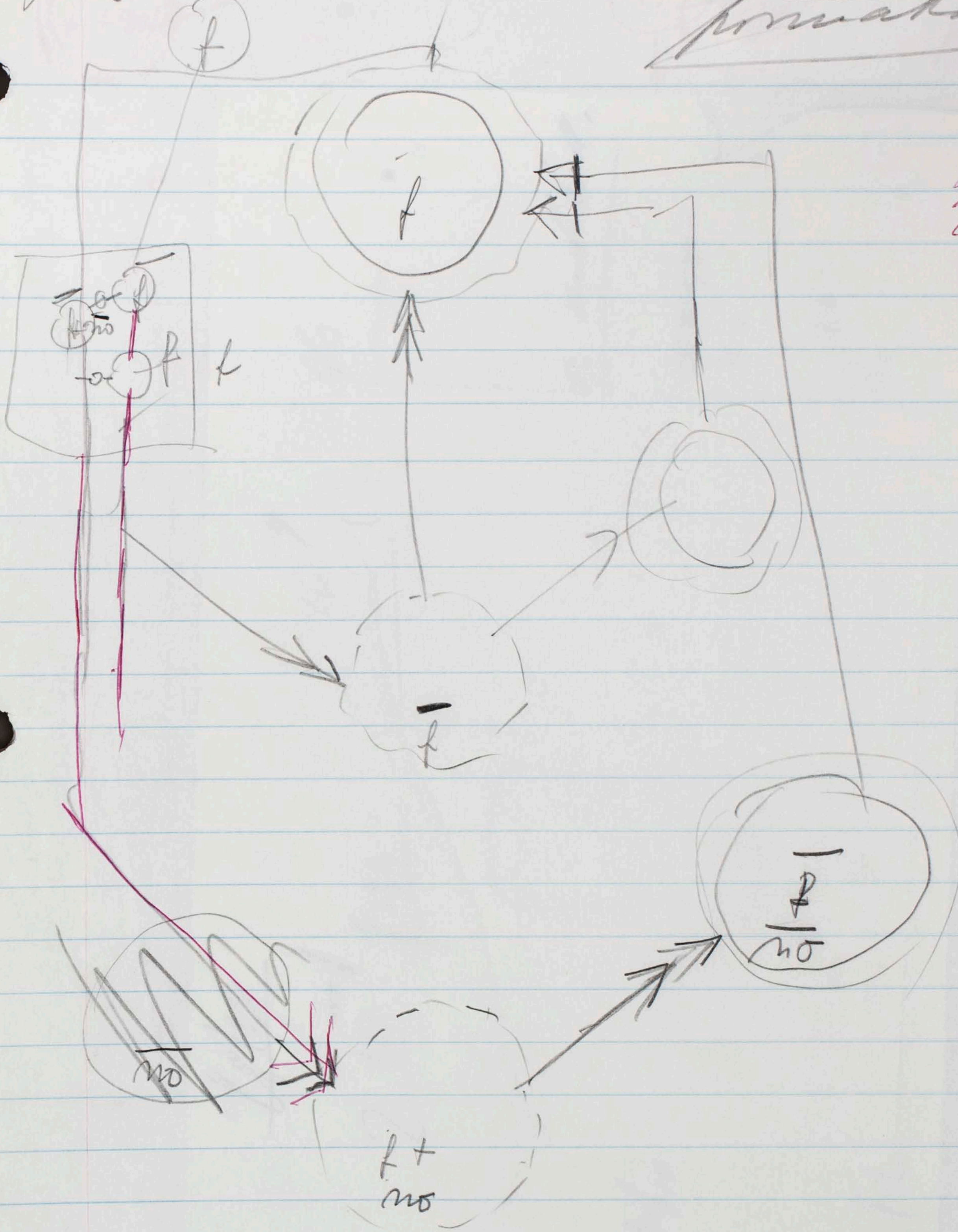
$f + \varepsilon_1 f + \varepsilon_2 f > f\left(\frac{a}{a+b}\right)^2 + f\left(\frac{b}{a+b}\right)^2 + \varepsilon_1 f + \varepsilon_2 f$

Model II



we good

First model Concept formation



10^{-9} cells

$2\,10^{-1}$ per

$2\,10^{8}$ cells make antibody.

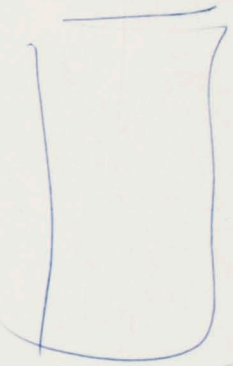
start $2\,10^{7}$ cells

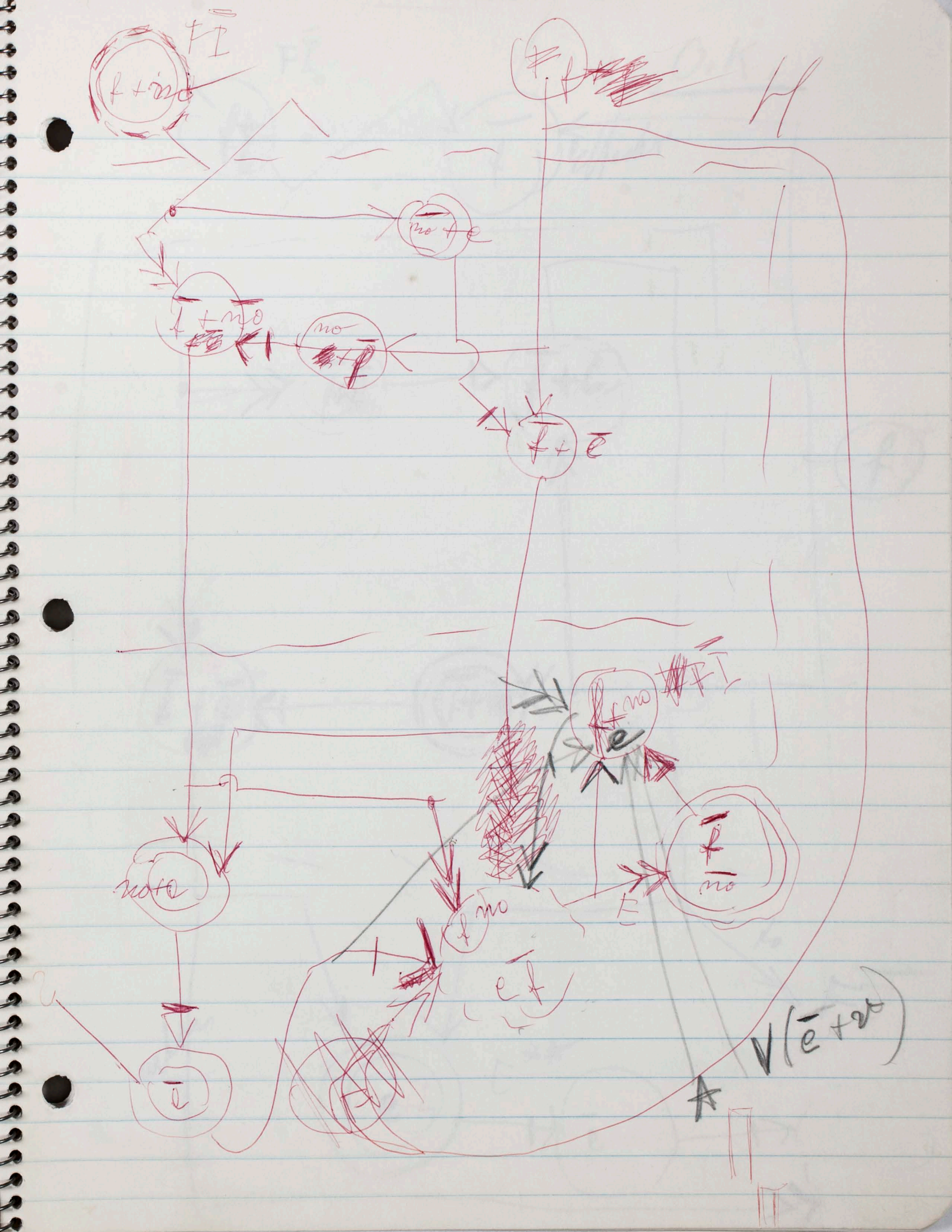
~~4 days~~ 30

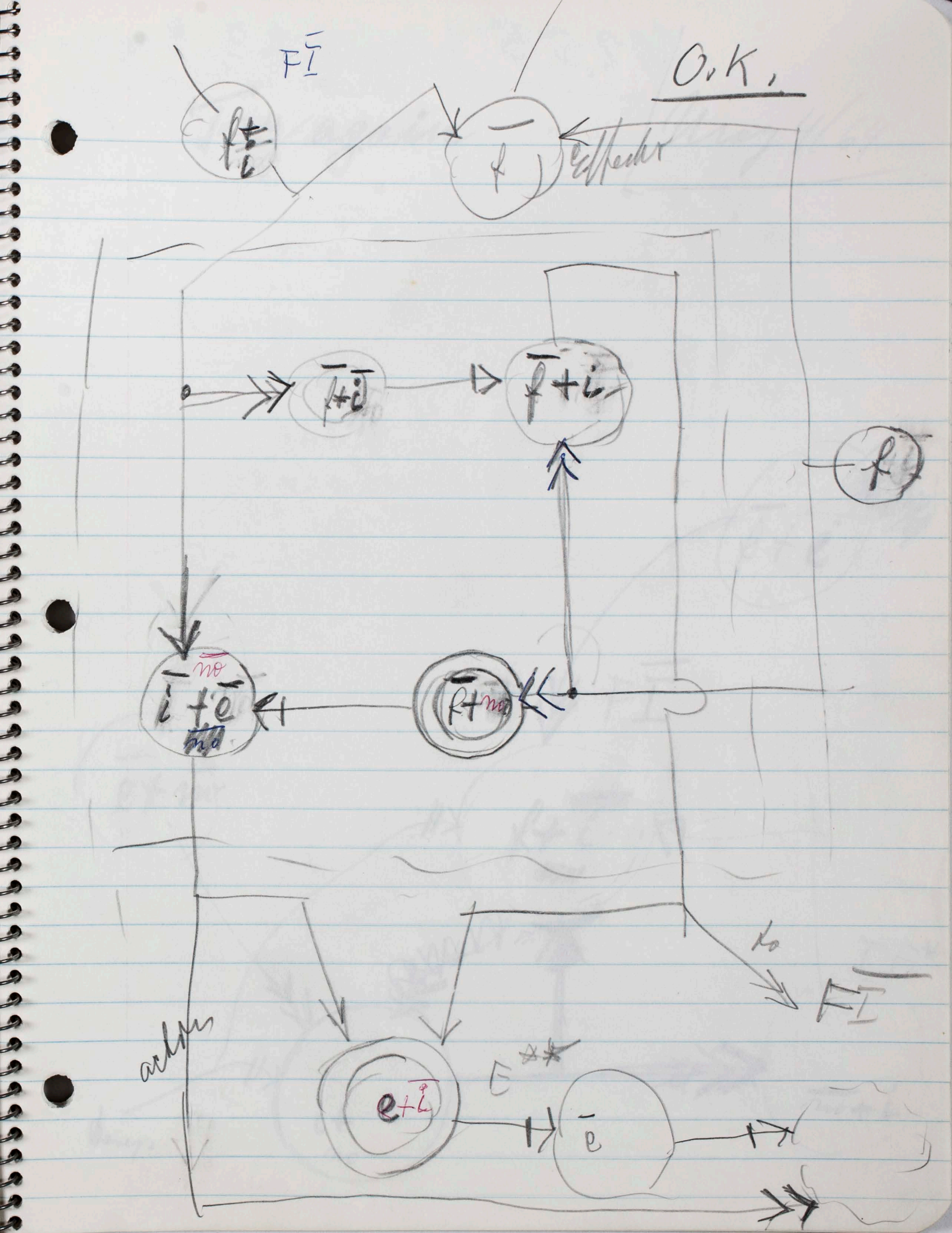
10^{6} 200 cells to start 2^{30}

$b = a \quad r = 1$

$$\ln r = a = br$$

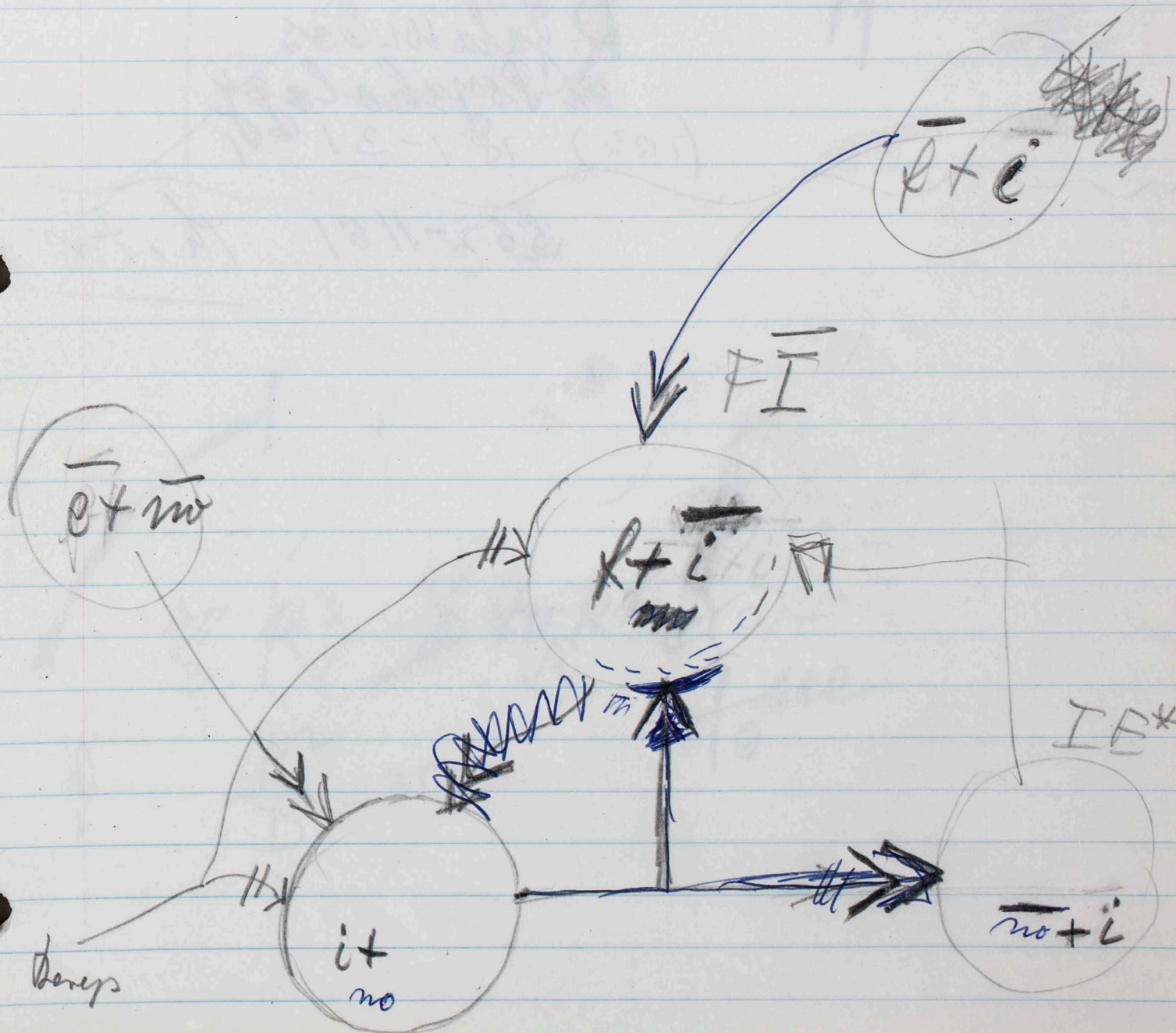





O.K.
extender

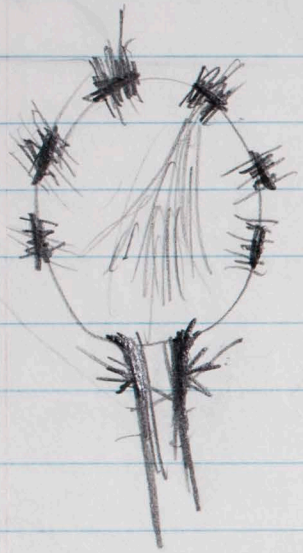
Try again

May 4/64



66255

Mary A. B. Brazier
The Electrical Activity of the N. System
McMillan
latest edition
after 51-



R. Galambos
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(703) 787-3151

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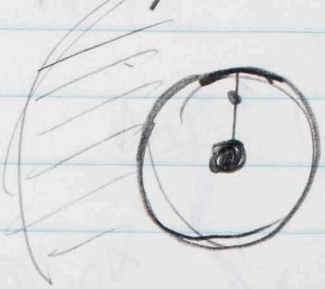
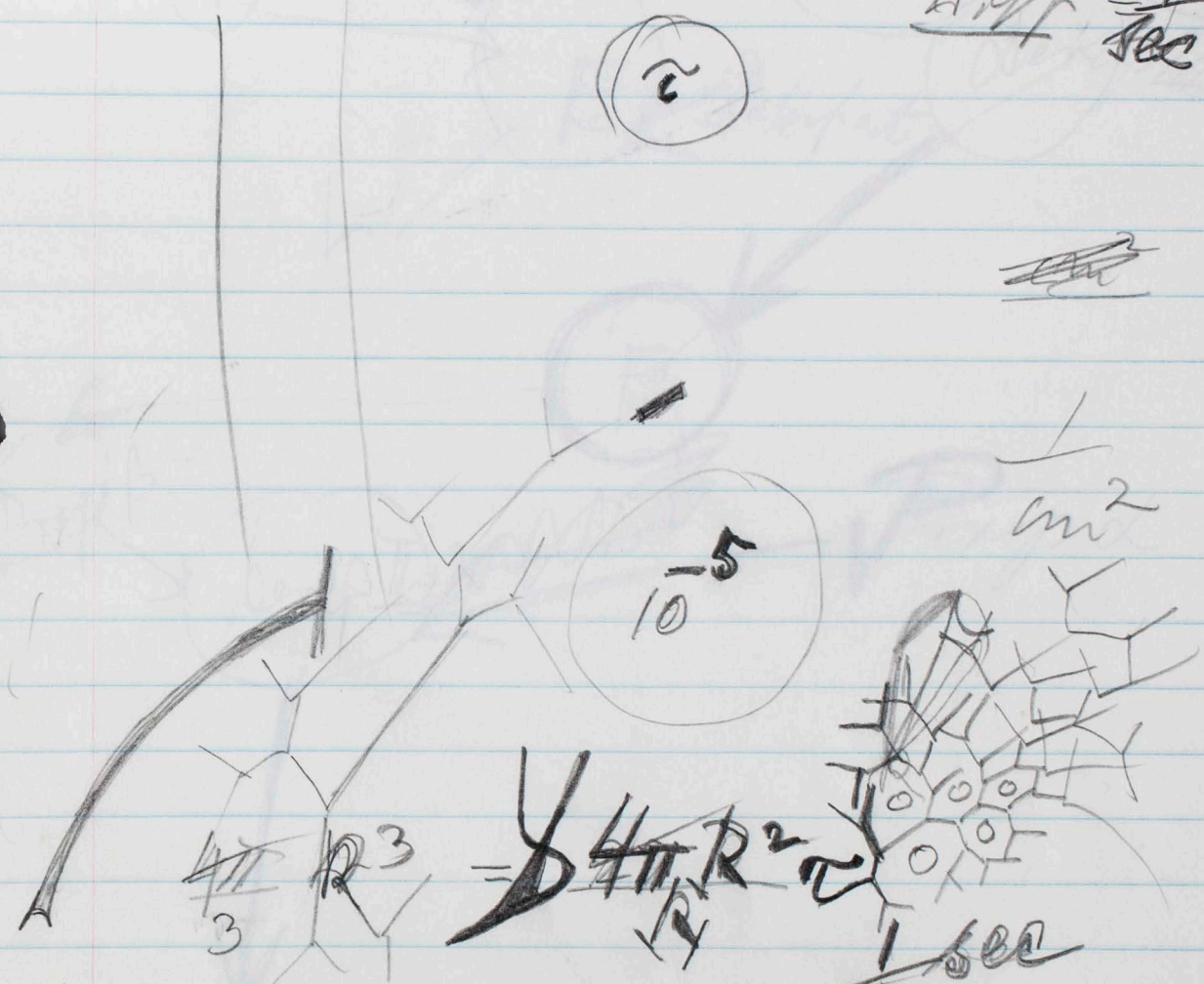
diffusion



$\frac{1}{2}\,10^{-3}$ cm distance

$\text{diff} = \frac{1}{\text{sec}}\,\frac{\text{gm}}{\text{cm}^3}\,\frac{\text{cm}^2}{\text{cm}}$

$\frac{1}{\text{cm}^2}$

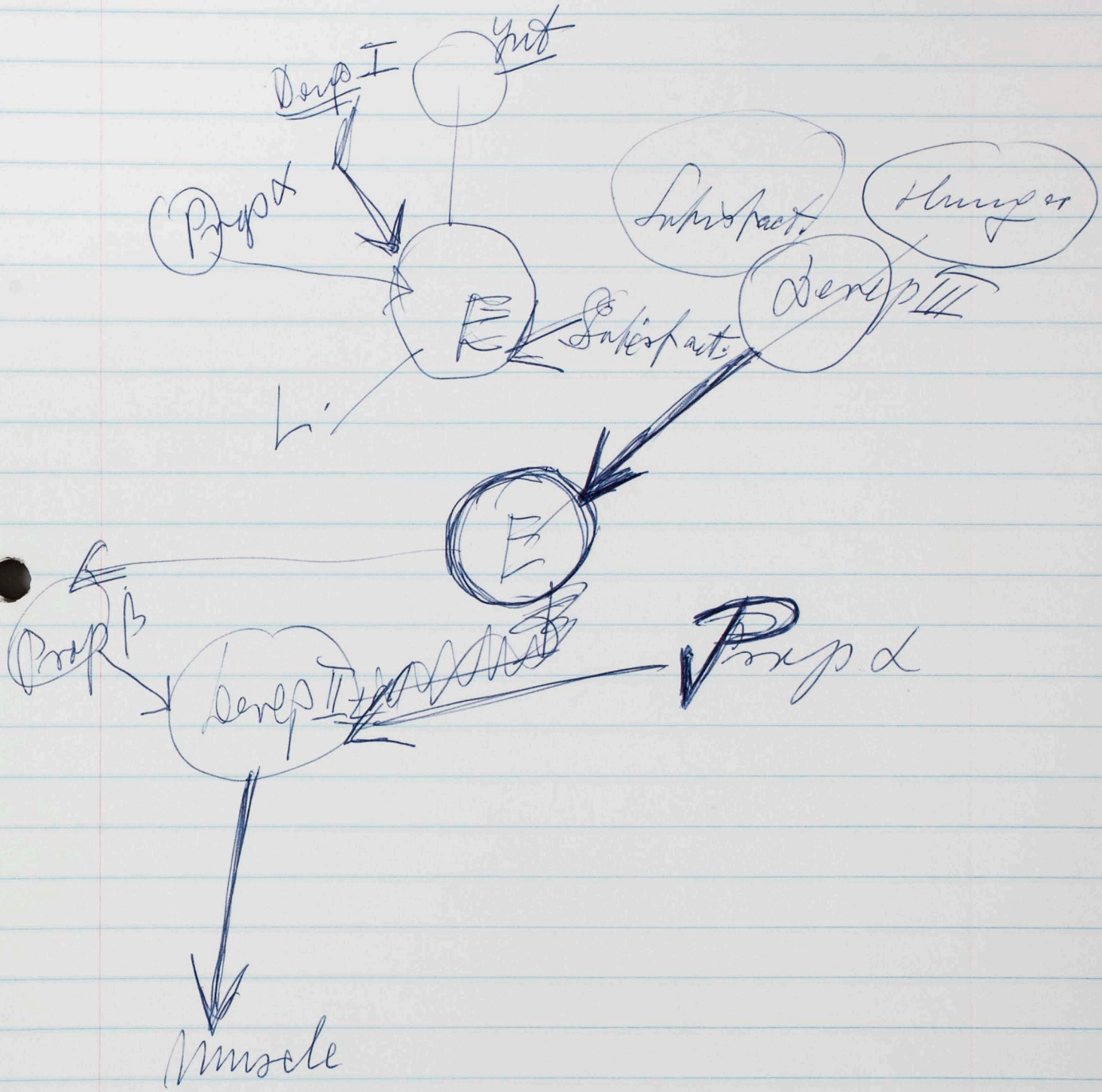


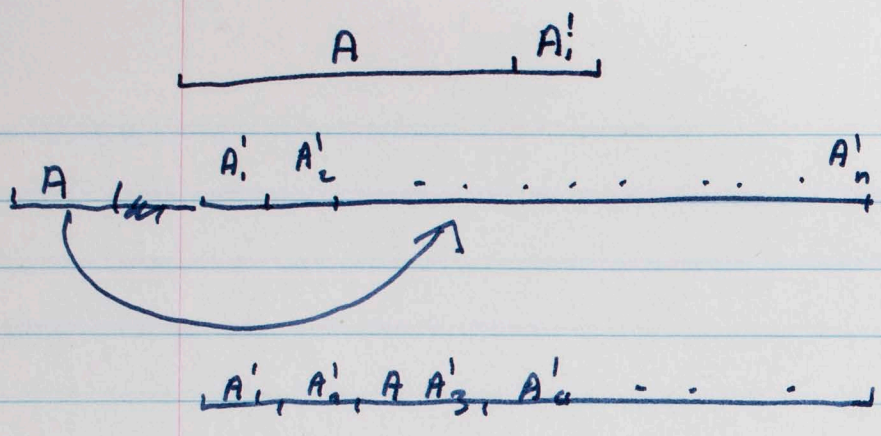
$\frac{4\pi}{3} R^3 = \cancel{\gamma}\, 4\pi R^2 \tau$

$\frac{1}{10}$ sec

$\frac{R^2}{D} = 3\tau$

Operant Cond





100,000

$\frac{28}{12}$ 336 //
230

Skinner Un 40848

P1. 2nd para 1st line Eliminate comma.
last line 1st page punctuation
spelling of accomplishment

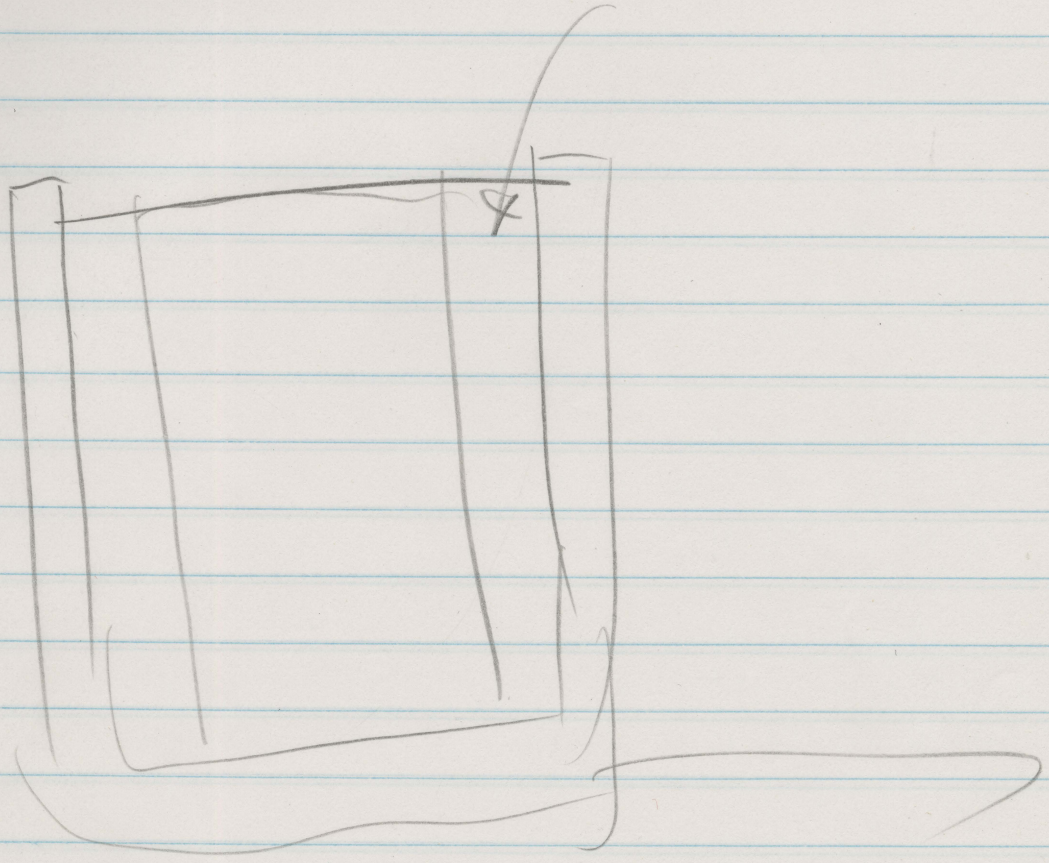
Neurons E
If what percent to auditory
If what percent to visual
preference to register
compound stimulus
due to threshold distribution

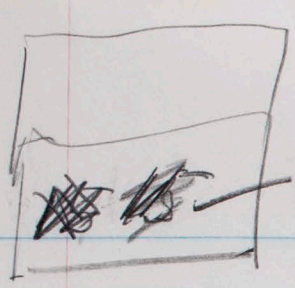
permeable to messenger RNA-s

conditioned responses
as an example
particular networks
a first guess

Frederic
Philosopher ~~Sm~~ Sommers
Brandeis

Musical ~~Sch~~ Scales (City Coll. N.Y.)



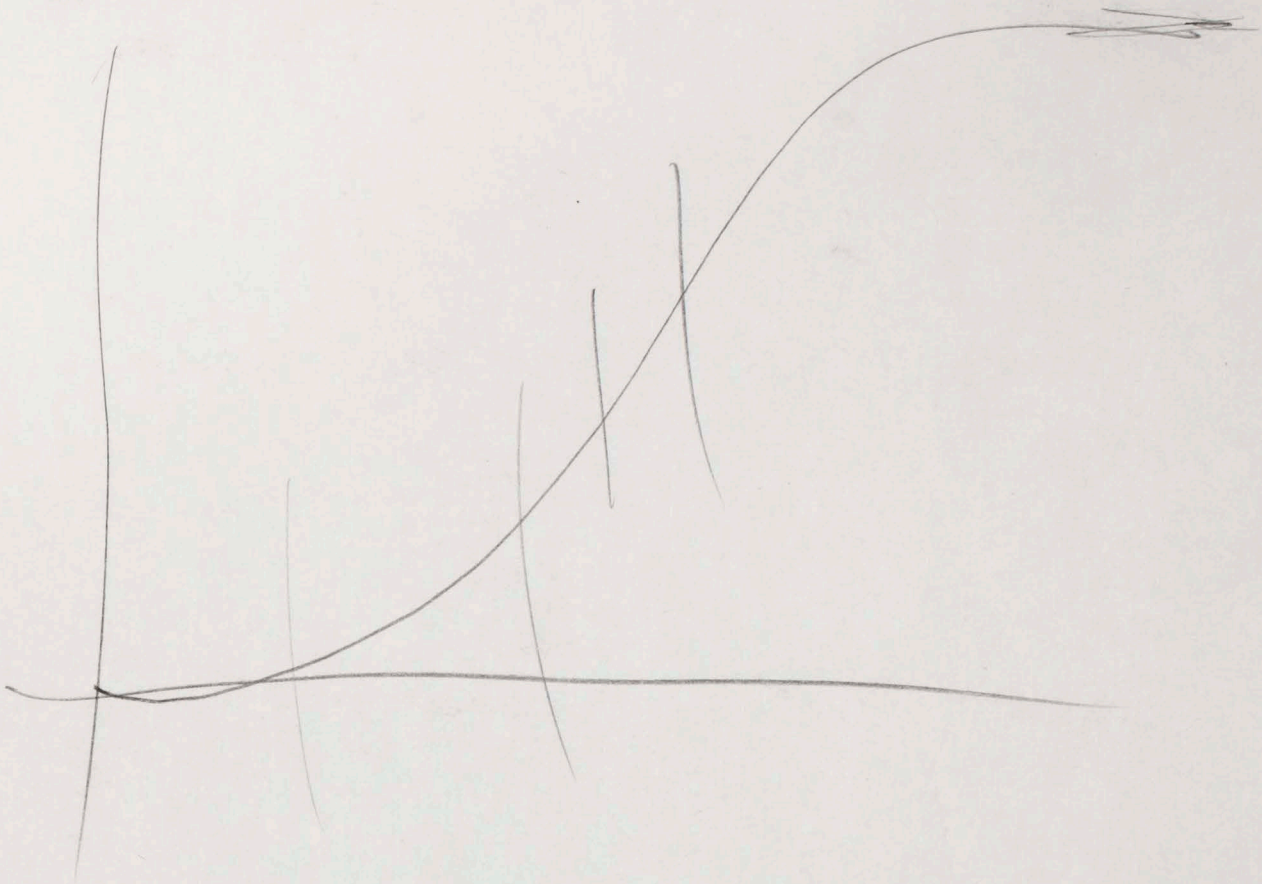


~~15~~ + 13 1/2

and 15 should be left

with 1 1/2 + ?

32 million + 1 million
equipment or supplies

South 4 million + 1 million

13 1/2
6
19 1/2 + 2 for equipment