

London Hospital

Publication/Creation

1903-1913

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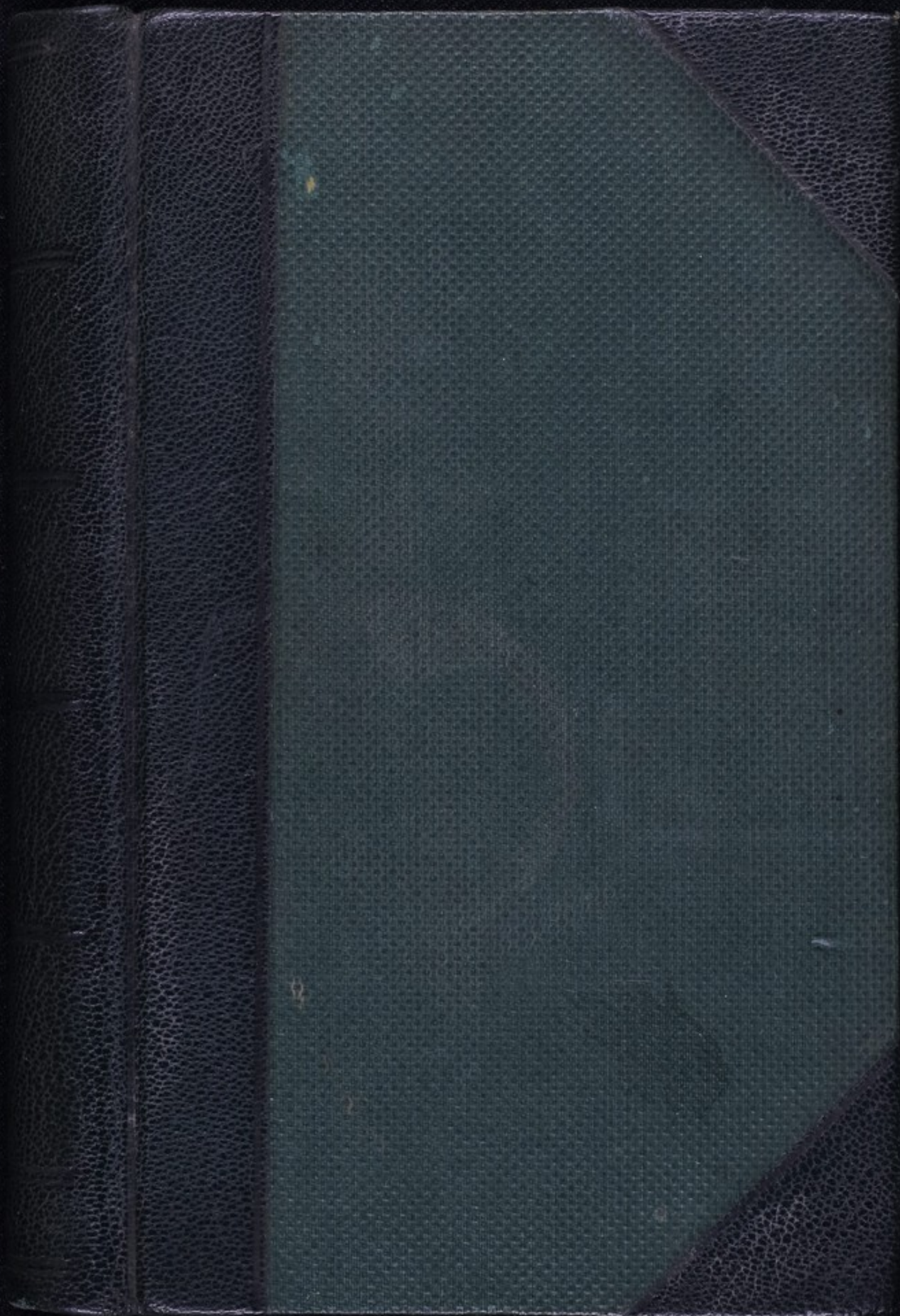
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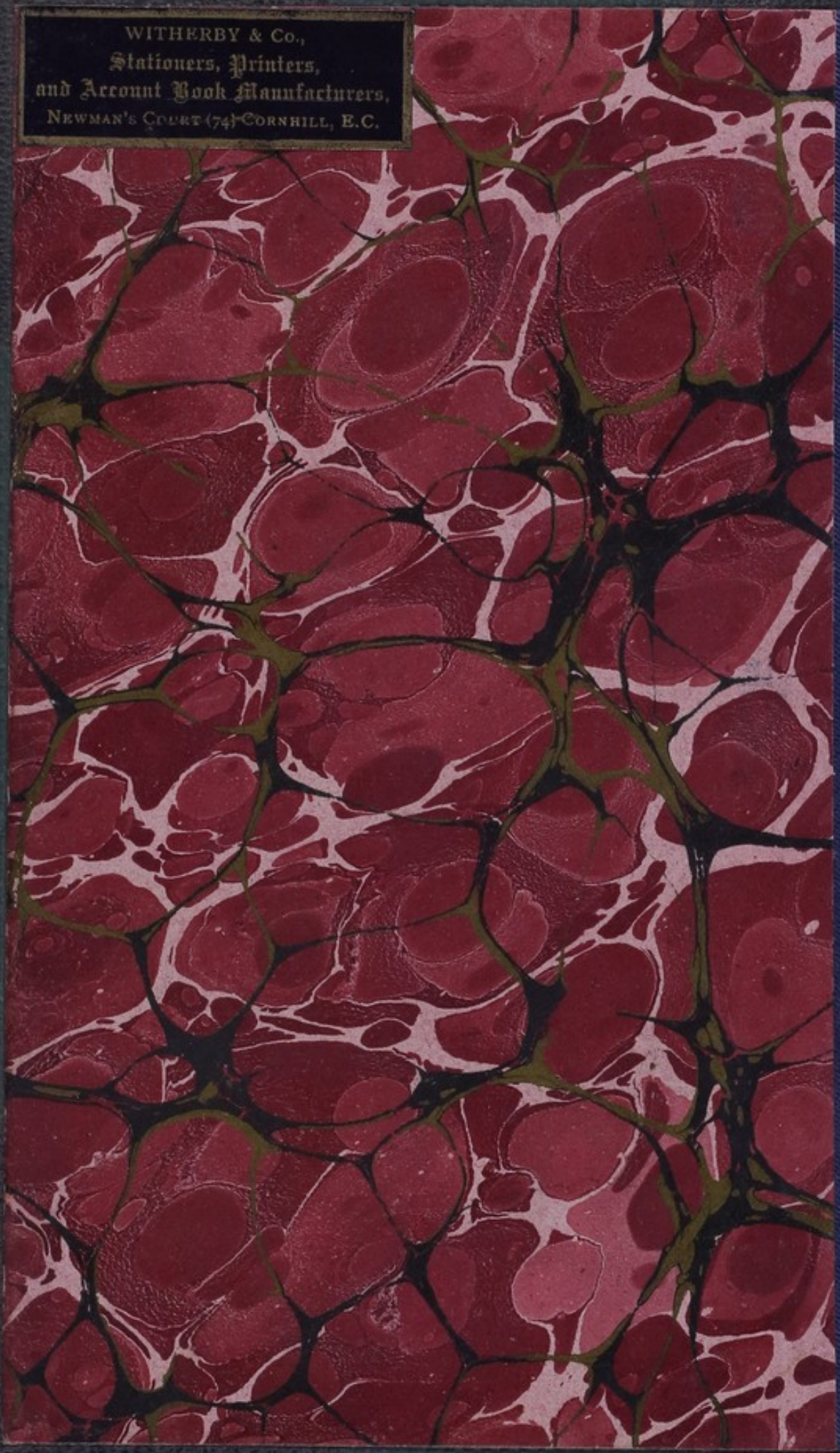
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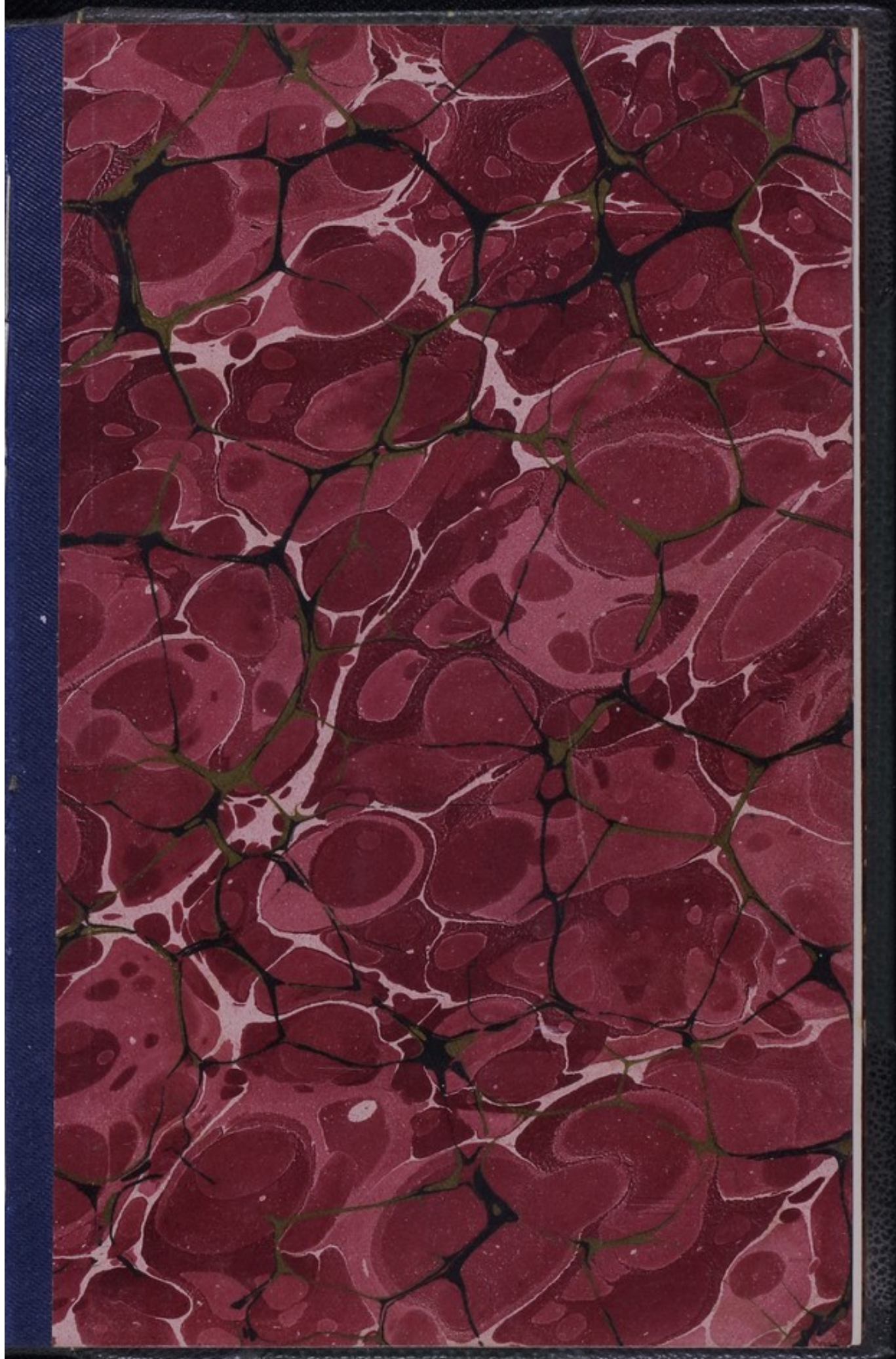
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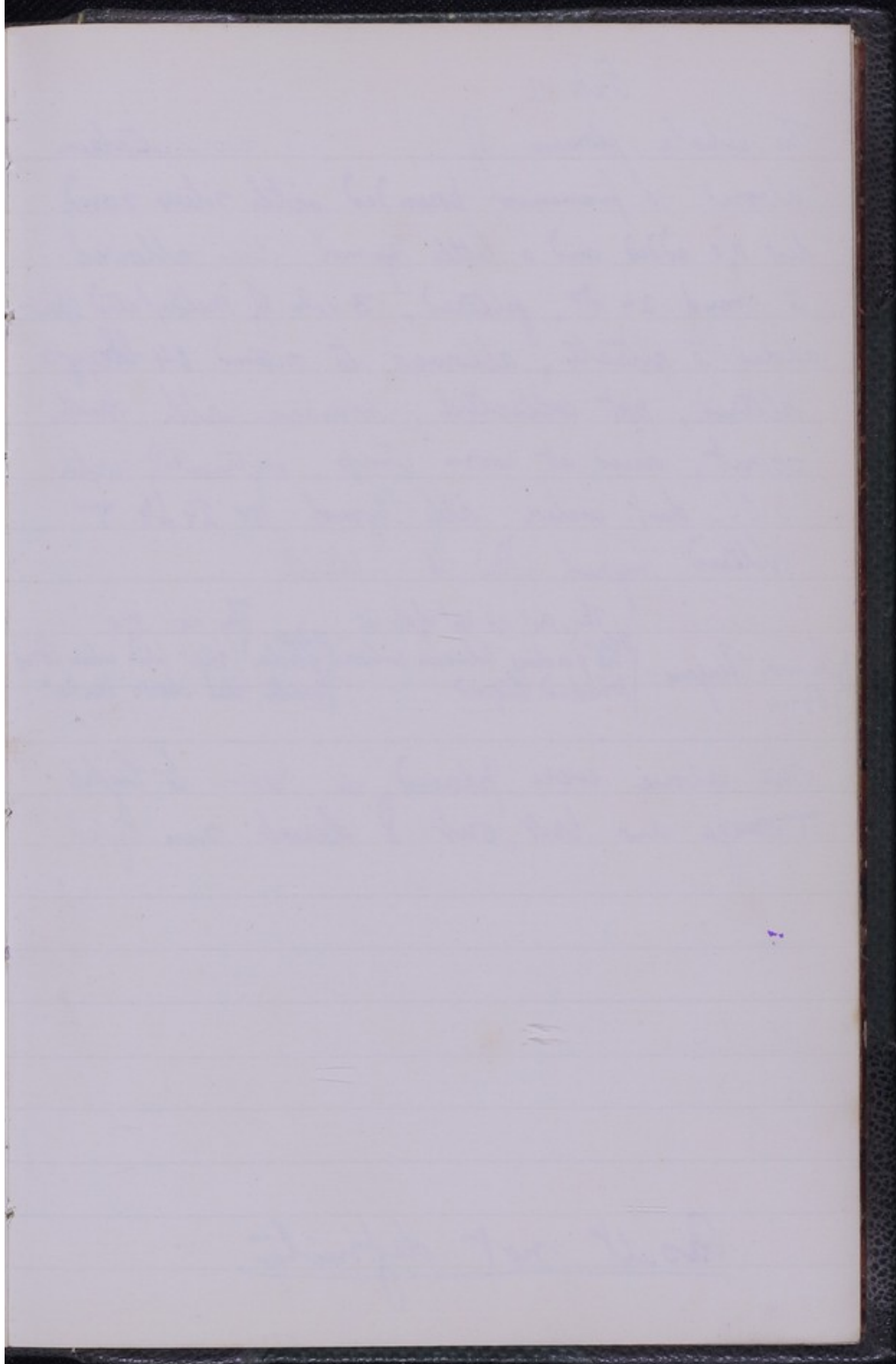
A+M
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Exp 1

The whole flowers of the wild Hawthorn were taken, about 50 grams, pounded up with silver sand, distilled H_2O added + a little thymol, then allowed to stand for 24 hrs, filtered, 3 vols of abs alc added to filtrate, allowed to stand 24 hrs, filtered, ppt collected, washed with abs alcohol dried at room temp, extracted with 20 cc. dist H_2O and a trace of Thymol added. Flowers of a red geranium placed in fluid appeared to turn slightly blue, when placed in cold. Conservatory to light, similar flowers placed in dist H_2O with thymol + abs. + a further watery extract from ppt remained unchanged. Yellow & blue flowers, placed in each, remained unchanged, all were left in for 14 days. ~~These~~ except all gradually faded to white, flowers to which

	1st extract of abs ppt	2nd ext of abs ppt	dist H_2O + thymol
Red geranium	light bluish	nil	nil
Yel Buttercup	nil	nil	nil
Blue Cornflower	nil faded	faded	faded

Result very indefinite



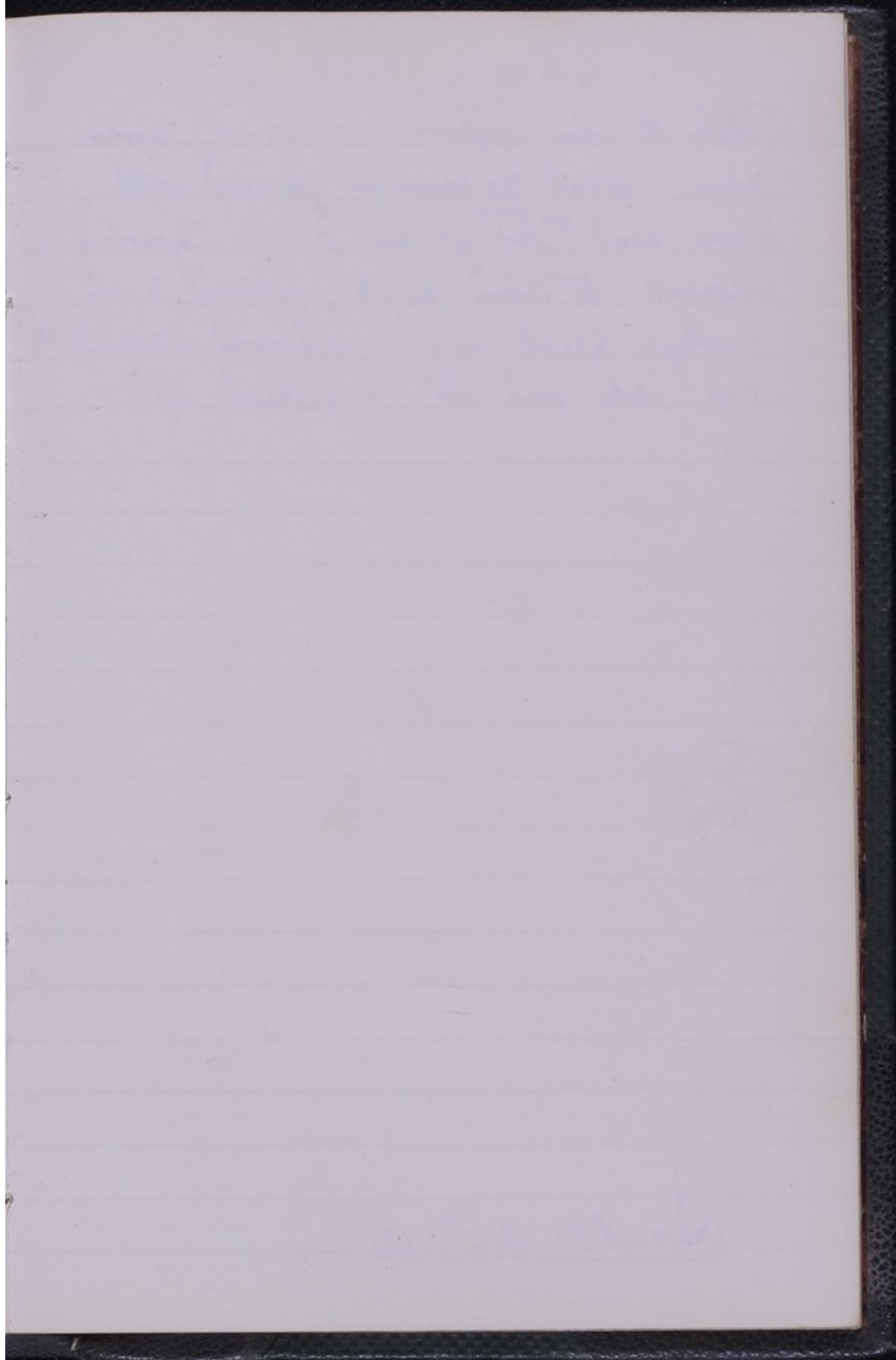
Exp 2

The whole flowers of *...* were taken
 "about 10 grams, pounded with silica sand.
 dist H₂O added and a little Thymol, then allowed
 to stand 24 hrs, filtered, 3 vol of Methylated spirit
 added to filtrate, allowed to stand 14 days
 filtered, ppt collected, washed with Methyl
 spirit, dried at room temp, extracted with
 10 cc. dist water with Thymol for 24 hrs &
 filtered. Thymol added to filtrate.

{ Limonene }	Penjane }	3 days no fading bluish where touched. liquid.	3 days faded slight bluish where touched water, then brown, then rot.
		They dist H ₂ O est of alc ppt	They dist H ₂ O

the above were placed in room to light
 & open air but out of direct sun light

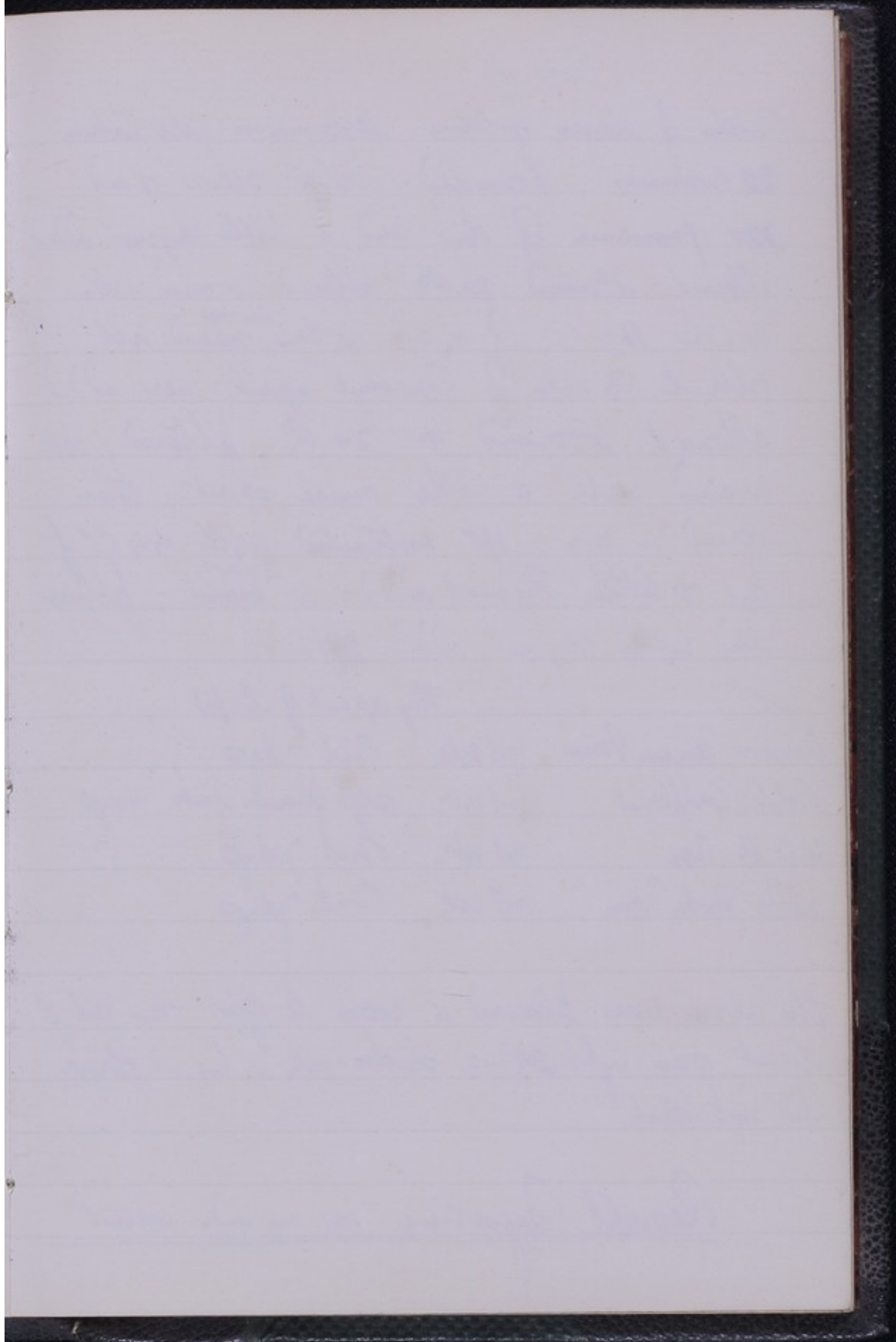
Result not definite.



Exp 3

Petals of blue delphinium flowers were taken - about 30 grammes, powdered with silver sand, ^{300 grammes} _{dist} H₂O and a little Thymol added allowed to stand 24 hrs., filtered, 3 vols of methyl spirit added, allowed to stand 24 hrs. Flask broken and all material lost.

Result not tested



Exp 4

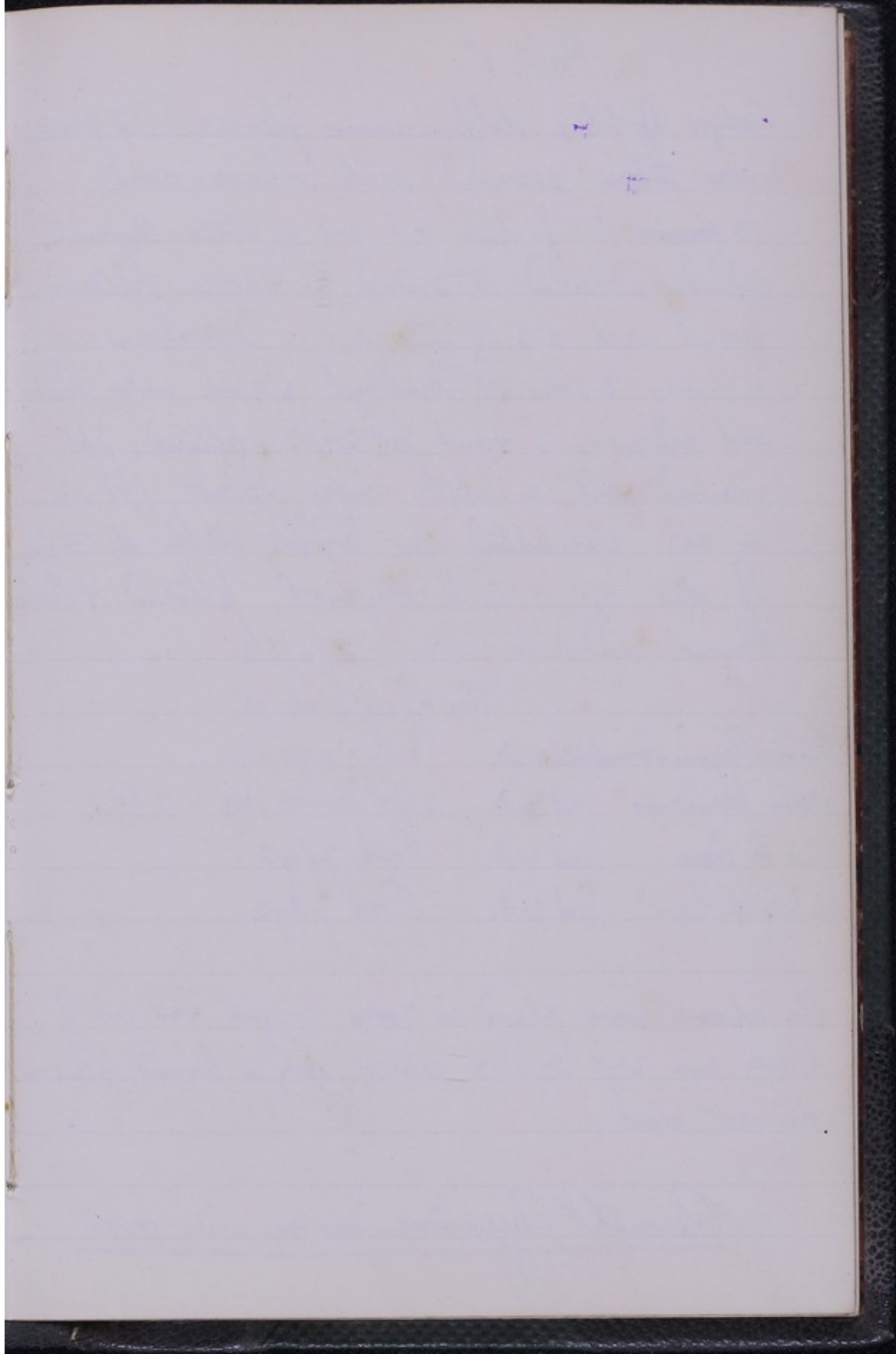
Petals of flowers of blue delphinium were taken
 "22 grammes", pounded with olive sand.
 320 grammes of dist and a little thymol added
 allowed to stand 24 hrs. filtered washed with
 another 150 cc of H_2O , to this ^{washing} mixed with
 filtrate 3 vols of Methyl spirit were added.
 allowed to stand for 24 hrs, filtered, ppt
 washed with a little more spirit, then
 dried in air. ppt extracted with 250 cc of
 H_2O + little Thymol added. for ^{3 days} ~~24 hrs~~, filtered
 and little thymol added. 29/6/03.

Thy. H_2O ext of alc ppt

Amson Persian Iris	ml 24 hrs.	ml 7 days
Polka Cornflower.	ml 24 hrs.	slgt Amson pink 4 days
W.A.R. Rose	ml 24 hrs.	ml 7 days
White Shirley Poppy.	ml 24 hrs.	ml 7 days

the above were placed in room to light, far out of
 direct sun light 30/6/03 stalks only in liquid flowers
 did not touch

Result Negative "exc see under control"



Exp 5

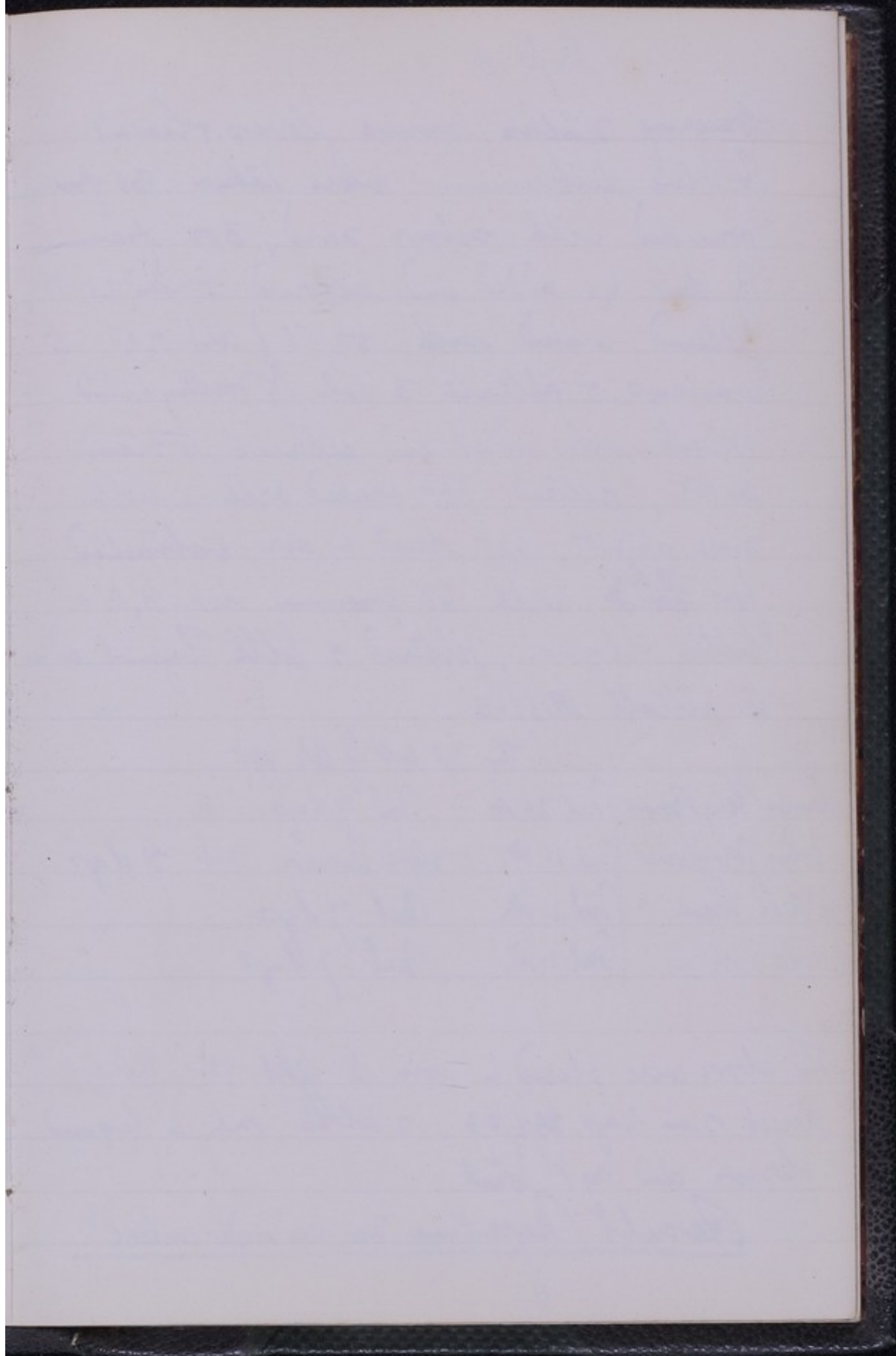
Calyx of blue delphinium flowers. 1.3 grams
 were taken powdered with silver sand
 13 ~~grams~~ cc of dist H₂O and a little thymol
 added, allowed to stand 24 hours, filtered
 washed with 6.5 cc dist H₂O, to washing & f
 filtrate 3 vols of methyl spirit were added
 and allowed to stand for 24 hrs., filtered, ppt
 washed with a little more spirit, ppt dried
 in air, extracted for ^{3 days} 24 hrs with 3 gm
 of dist H₂O + little thymol, filtered & little
 thymol added to filtrate 29/6/03

Thy. H₂O ext of alc ppt.

Crimson Pigeon Pinks	ml 24 hrs.	ml 7 days
Blue Cornflowers	ml 24 hrs.	slight crimson pink 4 days
W.A.P. Rose	ml 24 hrs.	ml 7 days
White Dutch Poppy	ml 24 hrs.	ml 7 days

The above were placed in room to light but out of
 direct sun rays 29/6/03. Stalks only in liquid, flowers
 did not touch.

Result Negative. "ex se unde control"



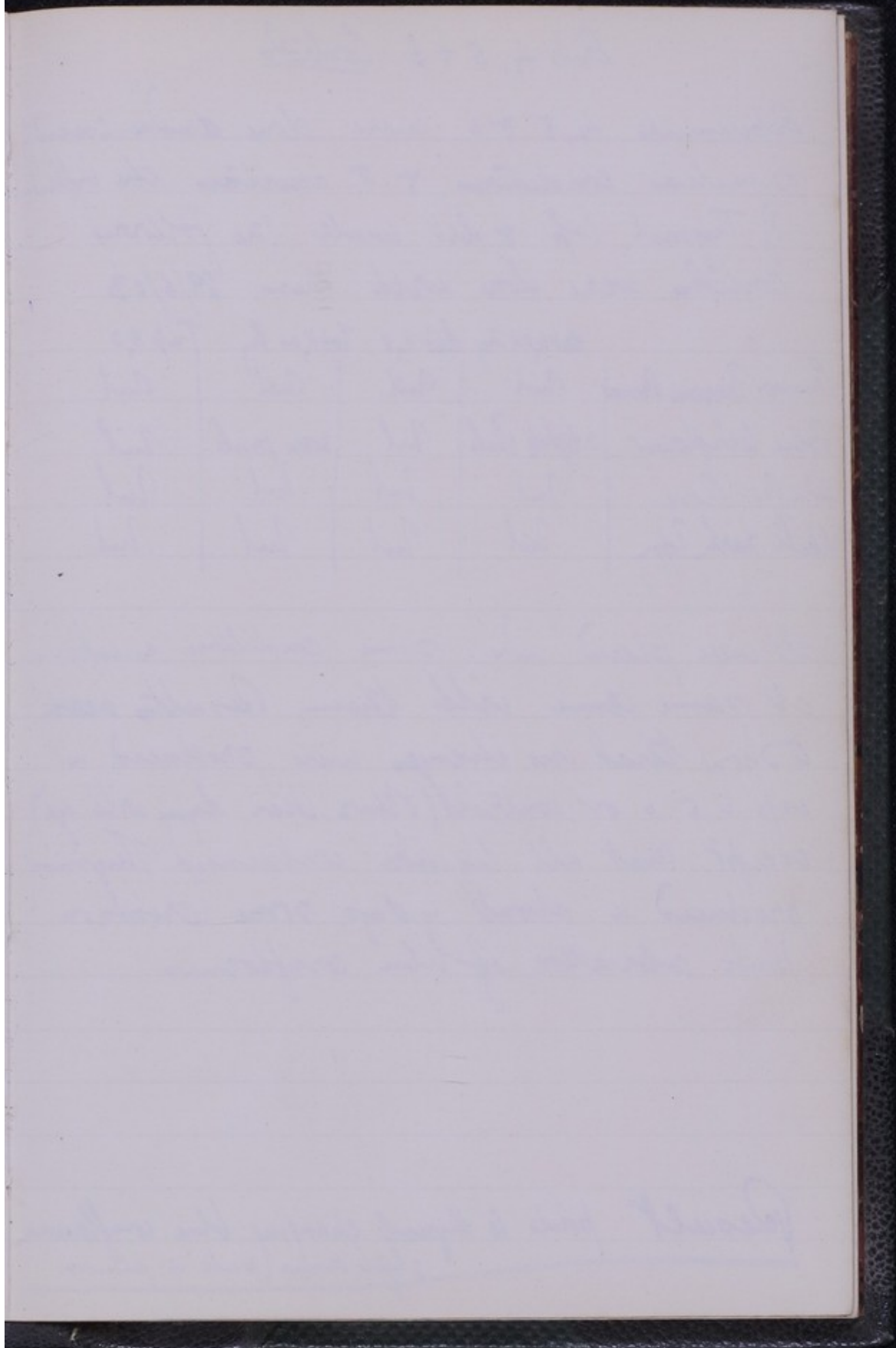
Exp 6.

Flowering stalks (minus flowers & leaves) of blue delphinium were taken 30 grammes pounded with silver sand, 300 grammes of dist H₂O added and allowed to stand 24 hrs, filtered, washed with 150 CC of dist H₂O, to washings & filtrate 3 vols of methylated spirit were added and allowed to stand 24 hrs, filtered, ppt washed with a little more spirit, ppt dried in air, extracted for ~~3 days~~ with 60 grammes dist H₂O + little Thymol, filtered & little Thymol added to filtrate 29/6/03.

		The H ₂ O cont of alc ppt
Crimson Pansy	ml 24 hrs	nil 7 days
Blue Cornflower	ml 24 hrs	slight crimson pink 7 days
W. R. Rose	ml 24 hrs	nil 7 days
White chry. Poppy	ml 24 hrs	nil 7 days

The above were placed in room to light fair but out of direct sun rays. 29/6/03, stalks only in liquid flowers did not touch.

Result Negative "ex. see under control"



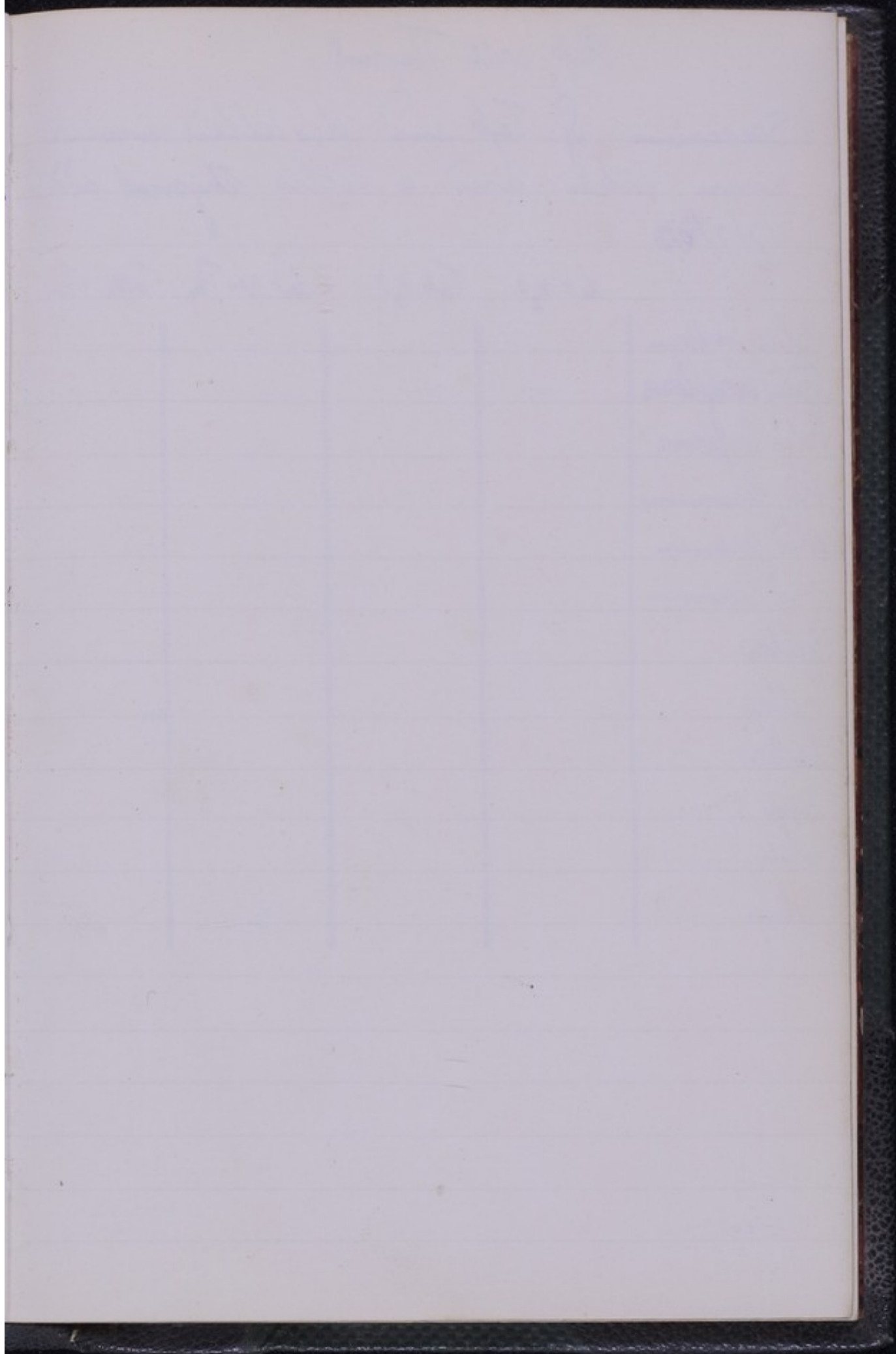
Exp 4, 5 + 6 Controls

Experiments 4, 5 & 6 were done under exactly similar conditions, & to ascertain the influence of Thymol, tap & dist water the following controls were done with them. 29/6/03

	dist H ₂ O + thy	dist H ₂ O	Tap H ₂ O + thy	Tap H ₂ O
Crimson Pimpernel	Nil	Nil	Nil	Nil
Blue Cornflower	slightly pink	Nil	some pink	Nil
W.A.R. Rose	Nil	Nil	Nil	Nil
White Shirley Poppy	Nil	Nil	Nil	Nil

all were placed under same conditions as experiment at same time with them. Results seem to show that no changes were produced in exp 4, 5, 6 or controls (other than dying with age) except that all liquids containing Thymol produced in about 4 days some crimson pink coloration of blue cornflowers.

Result points to thymol changing blue cornflowers slightly crimson pink in places

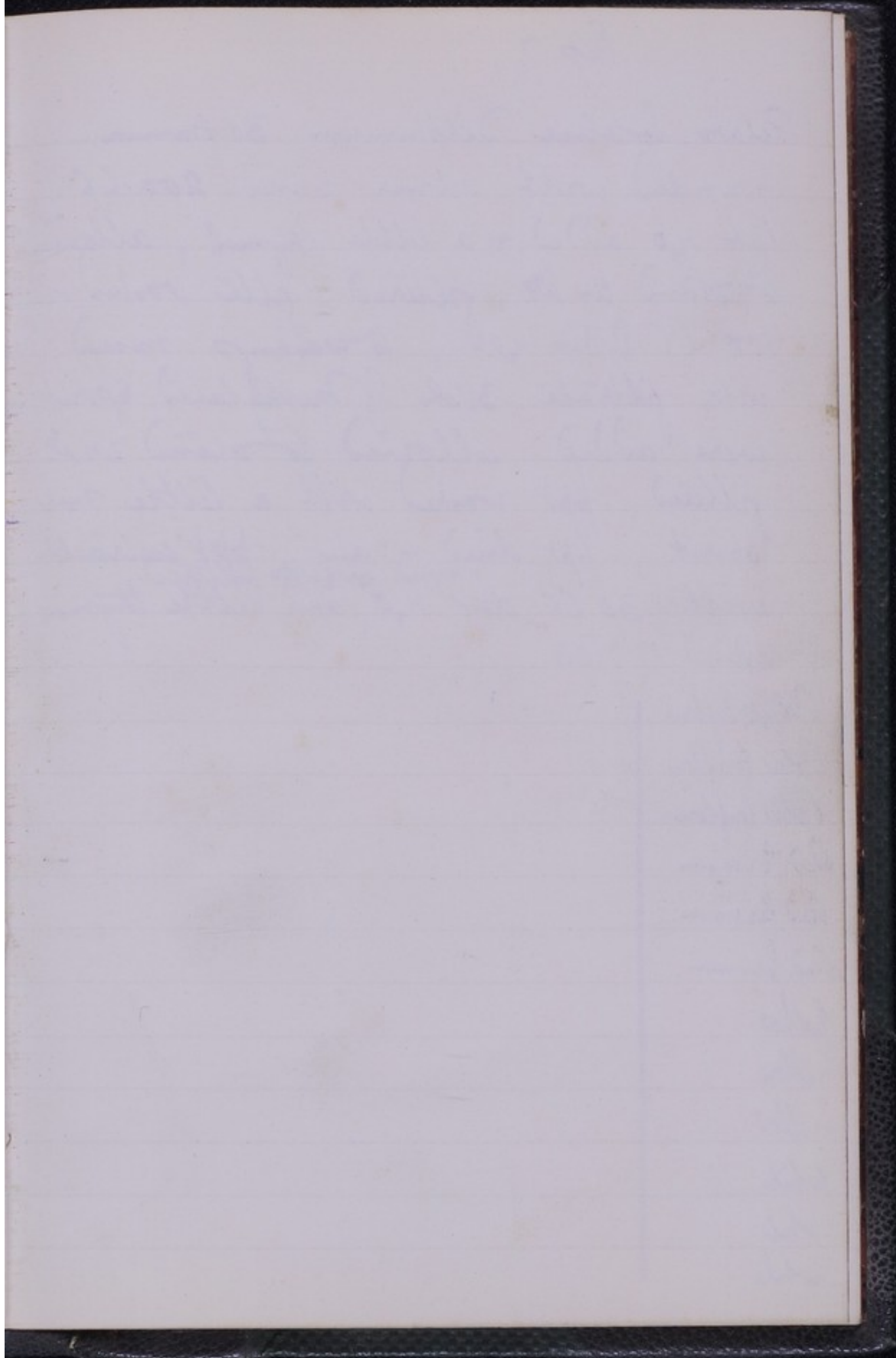


Exp with Thymol.

Specimens of Tap and distilled water
were taken and a little thymol added.

17/7/03.

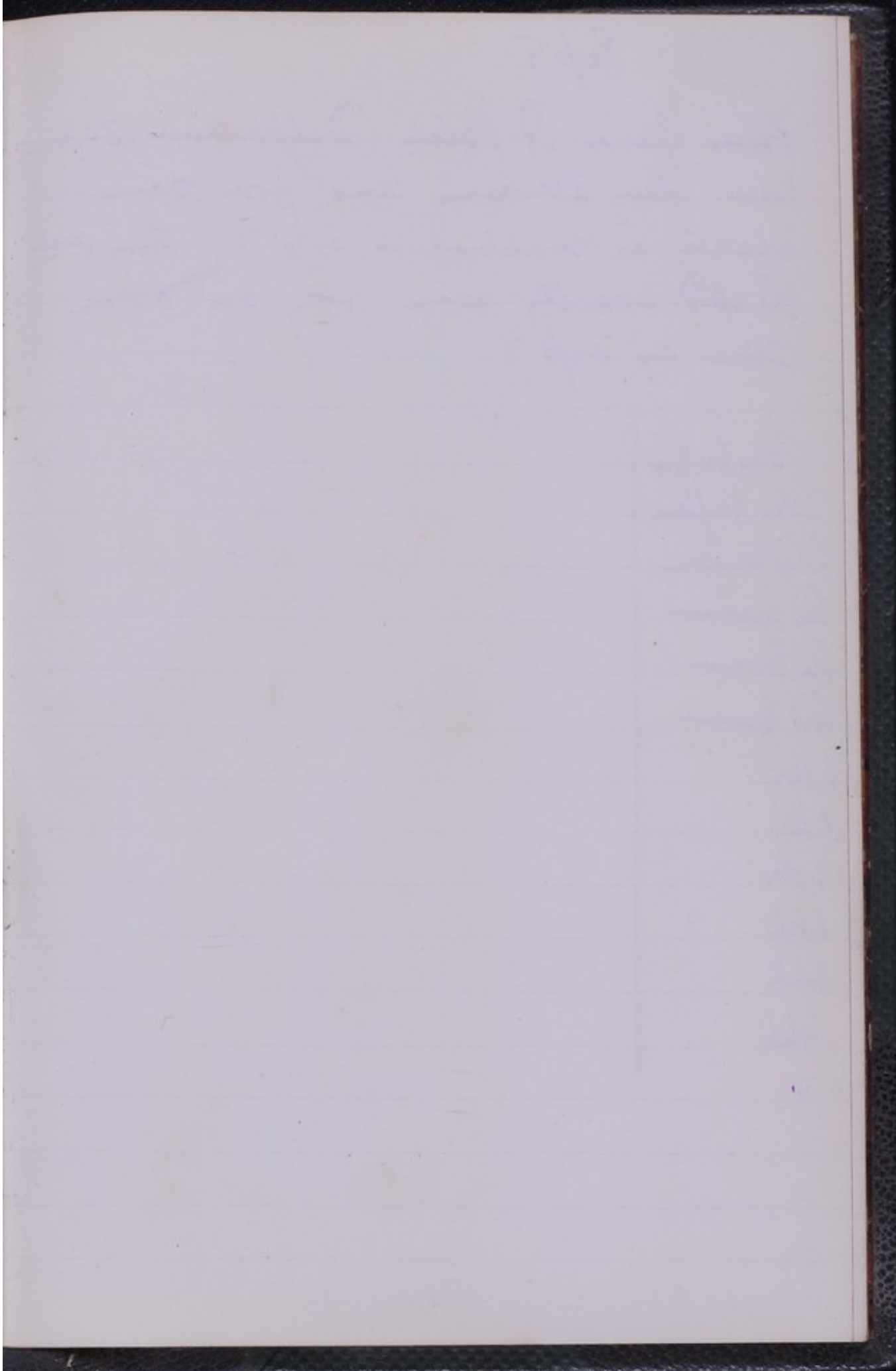
	dist H ₂ O	Tap H ₂ O	dist H ₂ O + Thy.	Tap H ₂ O + Thy.
Blue. Conflower				
Red Conflower				
Blue Conflower				
Red Geranium				
Red Geranium				
Red Geranium				
Yellow				
Yellow				
Yellow				
White				
White				
White				



Exp. 7.

Petals of blue Delphinium 30 grammes,
 pounded with silver sand. 200 CC of
 tap H₂O added + a little thymol, allowed
 to stand 24 hrs., filtered. filter washed with
 100 CC of tap H₂O, to washings mixed
 with filtrate 3 vol of methylated spirit
 were added, allowed to stand 24 hrs.
 filtered, ppt washed with a little more
 spirit, ppt dried in air, ppt extracted
 with 30 CC dist H₂O ^{+ thymol for 24 hrs.} filtered
 and little thymol
 added 17/7/03

- Blue Conflores
- Blue Conflores
- Blue Conflores
- Red Peranium
- Red Peranium
- Red Peranium.
- Yellow
- Yellow
- Yellow
- White
- White
- White



Exp 8.

Green leaves of Blue Delphinium 30 pieces
were taken at same time from same
plants as material in Exp 7. They were
treated exactly same way and same
time as exp 7.

Blue cornflower
Blue cornflower
Blue cornflower
Red peranium
Red peranium
Red peranium
Yellow
Yellow
Yellow
White
White
White

[Faint, illegible handwriting at the top of the page]

[Faint, illegible handwriting in the right margin, possibly a list or notes]

Exp 9

Stems of Blue Delphinium 30 frames.
were taken from same plants & same time
as material in exp 7 & 8. Treated same
way. for same time

Blue Cornflower

Blue Cornflower

Blue Cornflower

Red Geranium

Red Geranium

Red Geranium

Yellow

Yellow

Yellow

White

White

White

[Faint, illegible handwriting at the top of the page, possibly a title or header.]

[Faint, illegible handwriting in the right margin, possibly a list or notes.]

Exp 10

Calyx of Blue Delphinium 3 frames
were taken from same plants same time
as exp 7, 8, & 9. and treated same way
for same time, the amount of
fluid being in proportion to amount of
original material used.

Blue Cornflower
Blue Cornflower
Blue Cornflower
Red Geranium
Red Geranium
Red Geranium
Yellow
Yellow
Yellow
White
White
White

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Vertical handwritten text on the right side of the page, possibly a list or index. The text is illegible due to fading and bleed-through.

Exp 7, 8, 9, 10. Controls.

Exp 7, 8, 9, 10 were done under exactly similar conditions; the following controls were done with them. 17/7/03.

dist H_2O + Thymol.

Blue Camflower

Blue Camflower

Blue Camflower

Red Geranium

Red Geranium

Red Geranium

Yellow

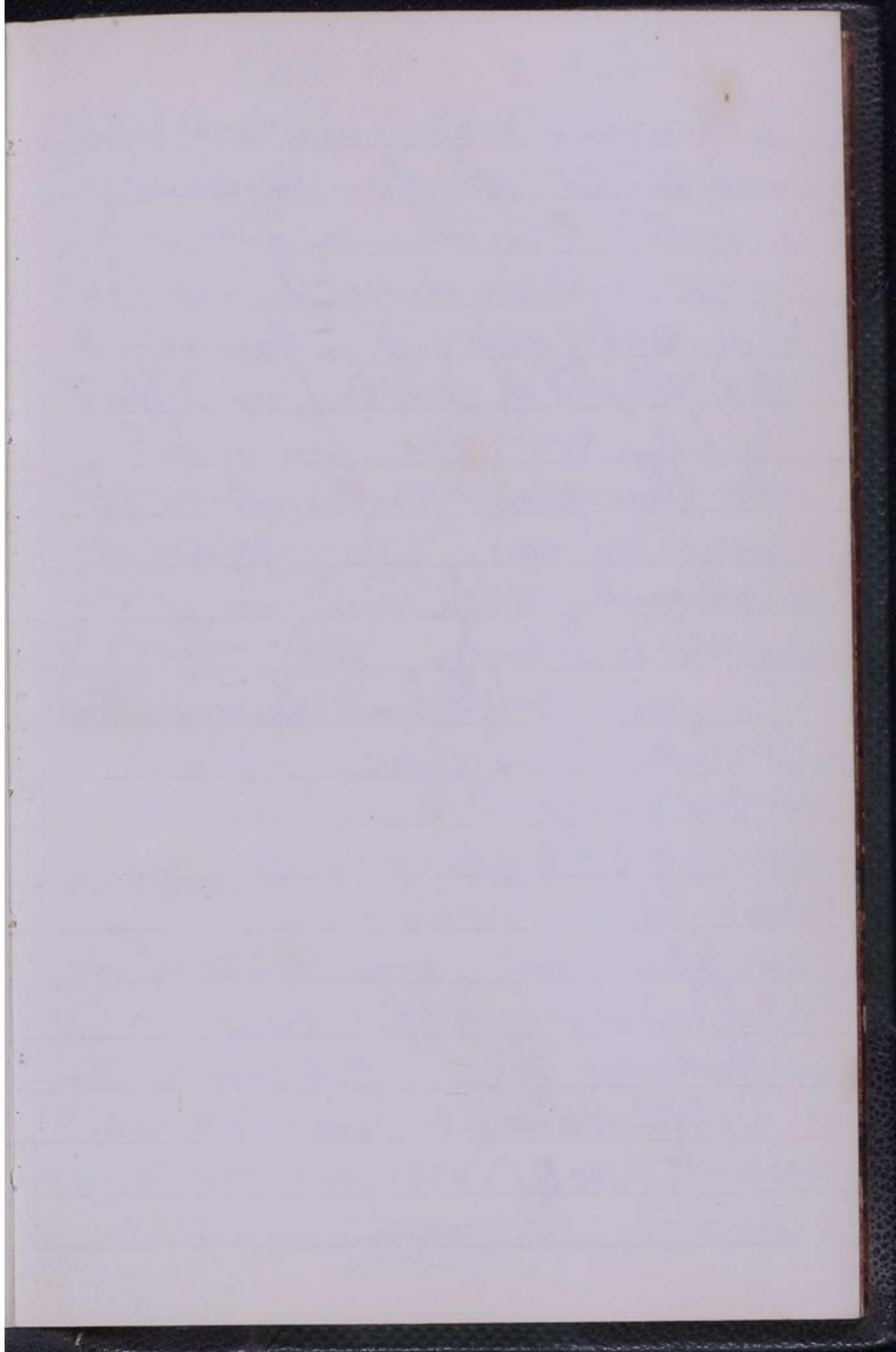
Yellow

Yellow

White

White


White



Exp II

A Souvenir De S. Africa rose which had started to open its flowers; a strand of wool was taken to some medicinal melting blue (strong sol.) put into a glass vessel the strand of wool was dipped in blue sol., the glass vessel was then placed on level with rose, one end of wool placed in vessel. The end in (wool 4 1/2' long). The

The veins in flower leaves started to show blue green coloration - 2 or 3 days, this increased up to about the end of a week when flower was well open. The blue green was dense but confined chief to the veins, chief in the largest ones, but also in the medium & small ones to a less extent. (1904)



Exp 12

Test with pollen in Sugar sol.

The pollen of various roses was taken and placed in some sterile 2% glucose sol. some were placed in incubator at 37°C & some left in room temp (warm day in summer)

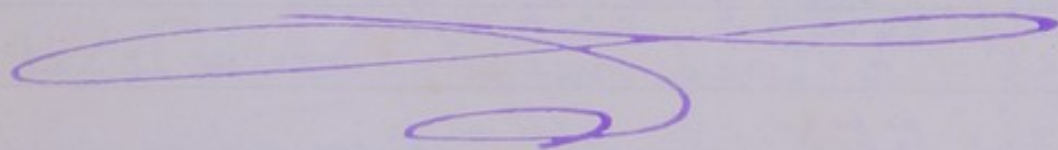
Then were then examined under microscope from time to time those in incubator showed budding of pollen first, usually in about 5 min but varied with different roses.

Those at room temp usually took double time
Madam Charles Worth grew well being $\frac{1}{2}$ the bud being in length $\frac{1}{2}$ the diameter of my pollen
Several tea roses including Souvenir de S. L. P. were also tested they all showed some growth but not so quick or so good as Madam C. Worth.
Cells scraped from the green stamens of *Vireoidiflora* showed no growth, tested on 4 or 5 occasions. (1905)

Exp 13.

Four white Iceland poppy plants
were placed under a Sachs's
bell jar with a $\frac{1}{4}$ in diam top
hole & tube for ventilation
& a watery sol of yellow green
stain placed between jars.
plants which were in flower
ceased to grow. In about 14 days
commenced to rot.

No further flowers opened
after first two days. No
flowers could be observed
or seeds collected.



Exp 14.

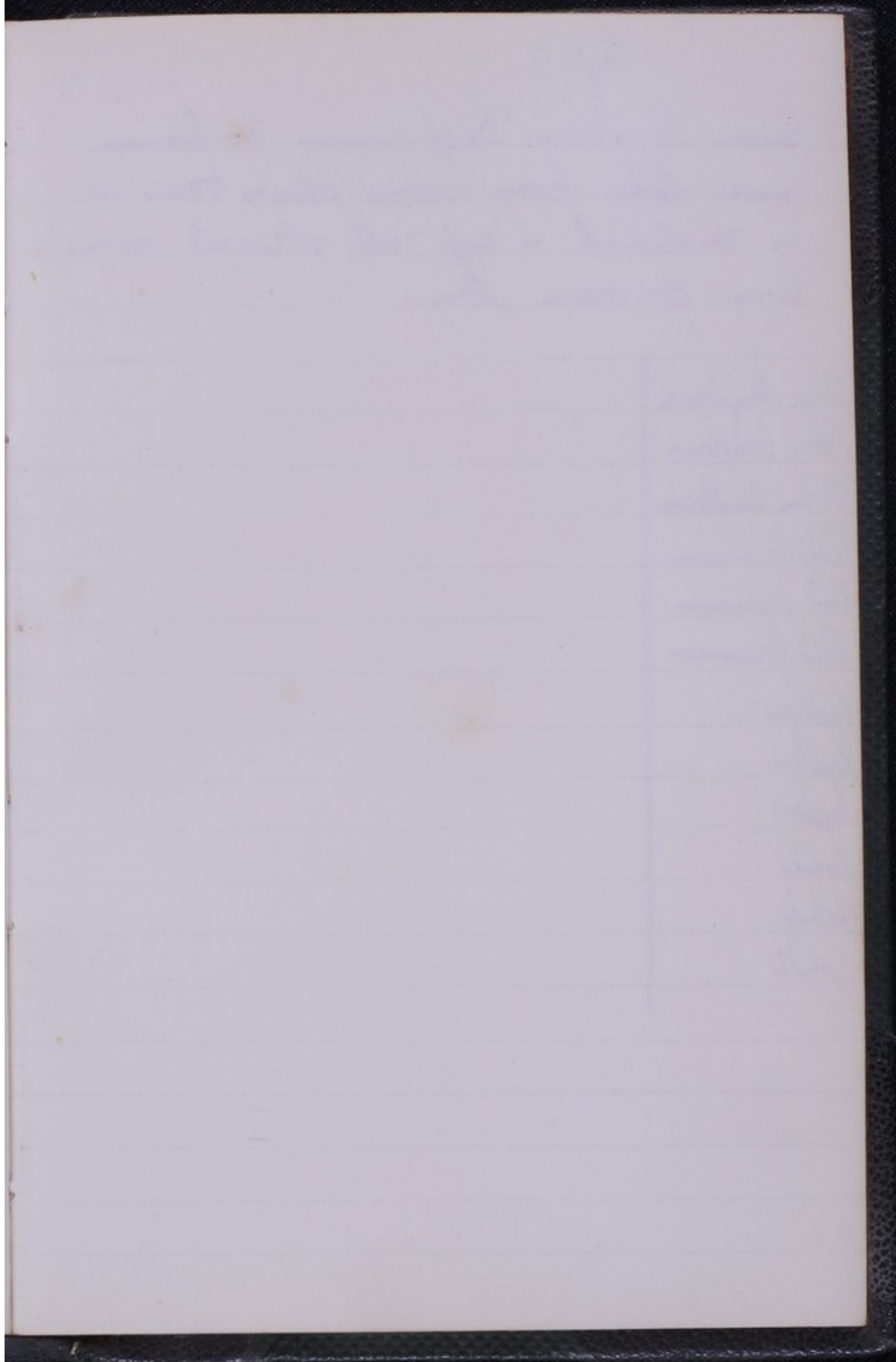
One white bath rose tree
(flowers to open - about 7 days)
was placed under bell jar (as
= Exp 13.) flowers came out
up to about 10 days showed
no change from normal.
plant then withered.
No seeds could be collected.



Exp 8

Green leaves of Blue Delphinium 30 pieces
were taken at same time from same
plants as material in Exp 7. They were
treated exactly same way and same
time as exp 7.

Blue cornflower
Blue cornflower
Blue cornflower
Red peranium
Red peranium
Red peranium
Yellow
Yellow
Yellow
White
White
White



Exp 9

Stems of Blue Delphinium 30 frames.
were taken from same plants same time
as material in exp 7 & 8. Treated same
way. for same time

Blue Cornflower

Blue Cornflower

Blue Cornflower

Red Geranium

Red Geranium

Red Geranium

Yellow

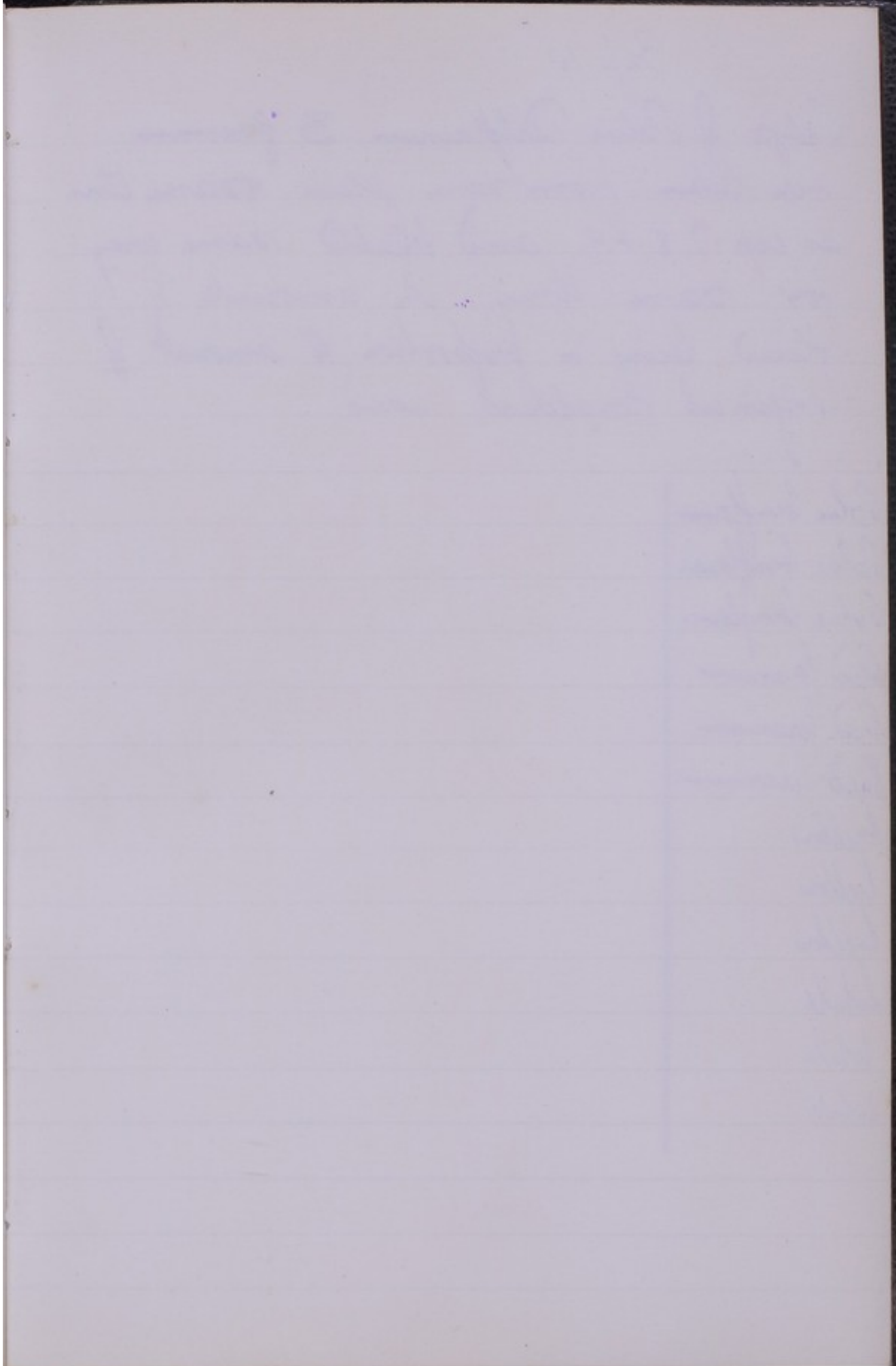
Yellow

Yellow

White

White

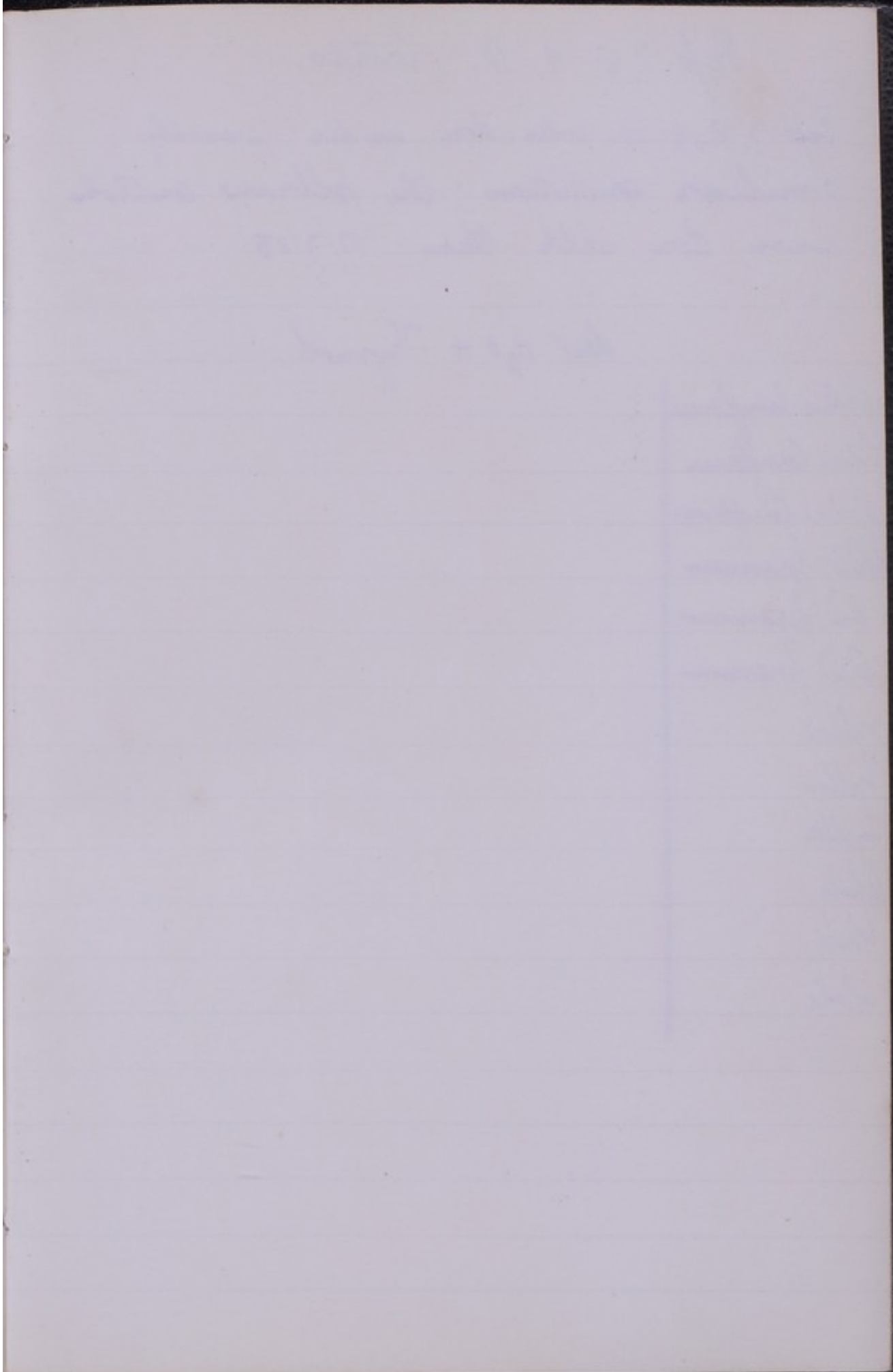
White



Exp 10

Calyx of Blue Delphinium 3 frames
were taken from same plants same time
as exp 7, 8, & 9, and treated same way
for same time, the amount of
fluid being in proportion to amount of
original material used.

Blue cornflower
Blue cornflower
Blue cornflower
Red geranium
Red geranium
Red geranium
Yellow
Yellow
Yellow
White
White
White

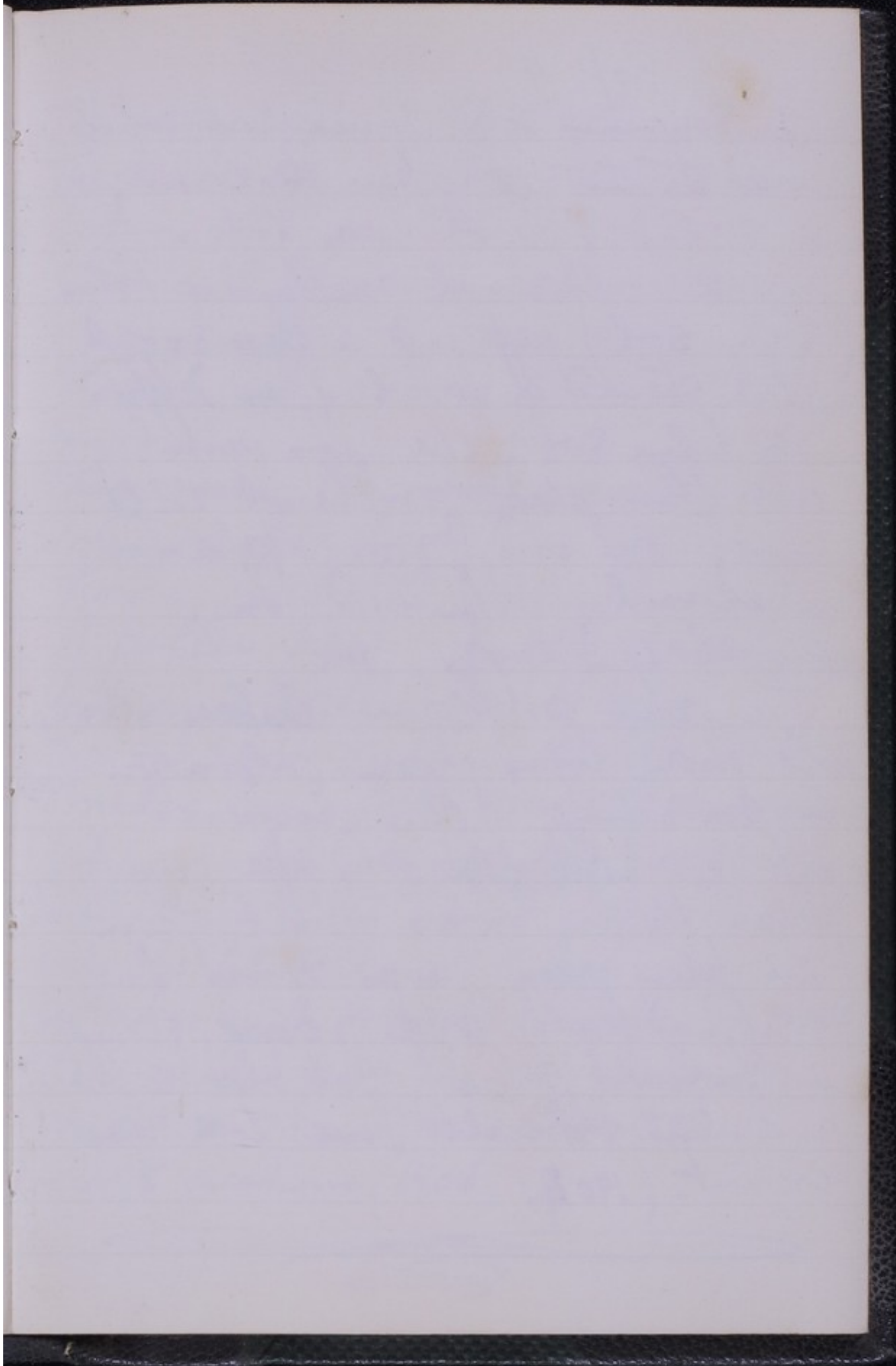


Exp 7, 8, 9, 10. Controls.

Exp 7, 8, 9, 10 were done under exactly similar conditions; the following controls were done with them. 17/7/03.

dist H_2O + Thymol.

Blue Cornflower
Blue Cornflower
Blue Cornflower
Red Geranium
Red Geranium
Red Geranium
Yellow
Yellow
Yellow
White
White
White

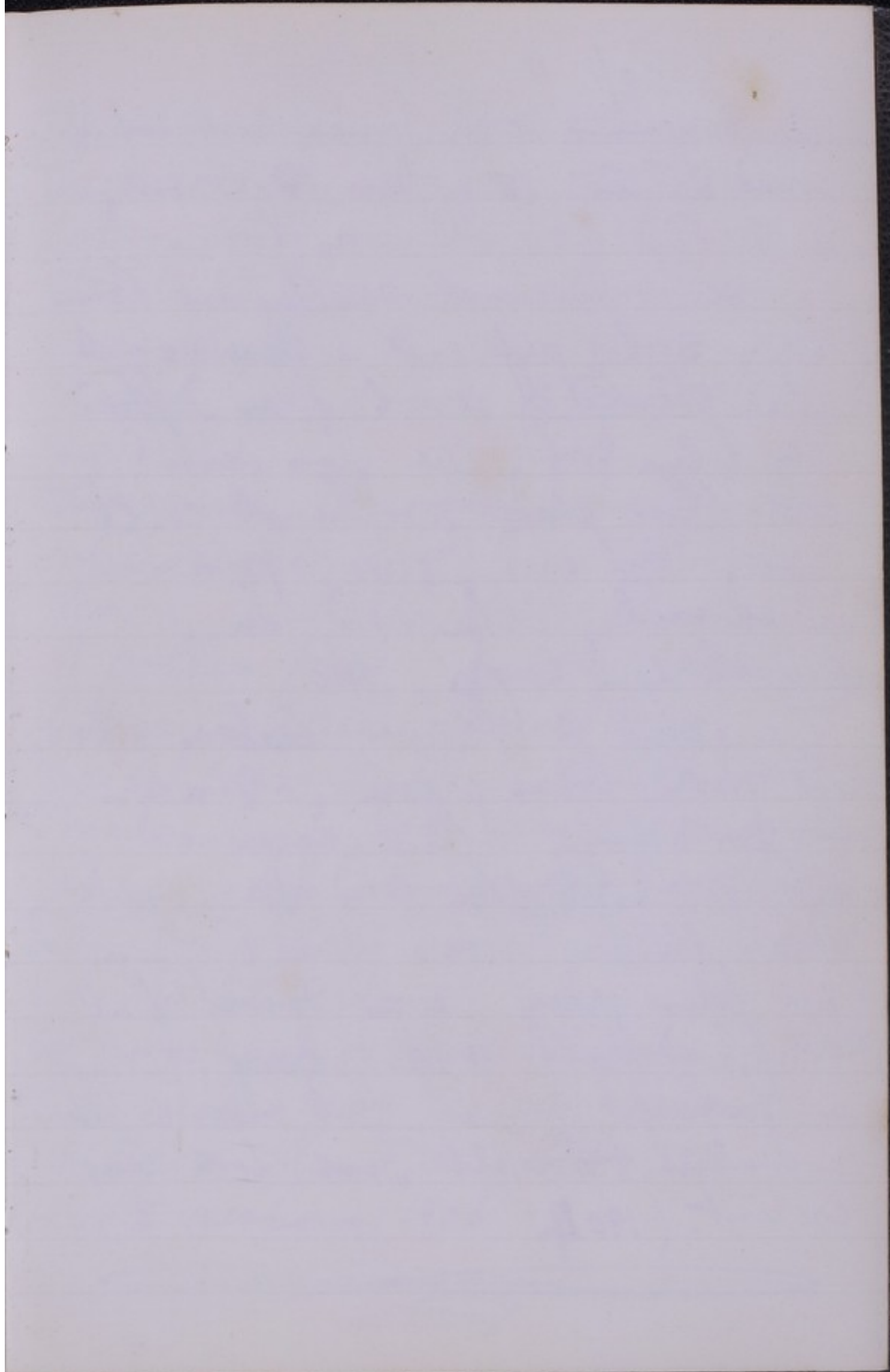


Exp 7, 8, 9, 10. Controls.

Exp 7, 8, 9, 10 were done under exactly similar conditions; the following controls were done with them. 17/7/03.

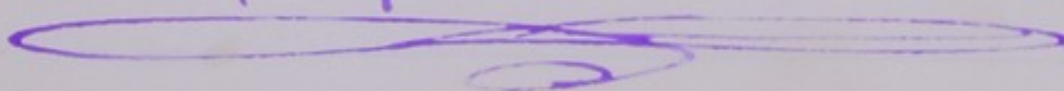
dist H_2O + Thymol.

Blue Cornflower
Blue Cornflower
Blue Cornflower
Red Geranium
Red Geranium
Red Geranium
Yellow
Yellow
Yellow
White
White
White



Exp II

A Souvenir De S. Africa rose which
had started to open the flower;
a strand of wool was taken
some medicinal melting blue
(strong sol.) put into a glass vessel
the strand of wool was dipped
in blue sol., the glass vessel
was then placed on level with
rose, one end of wool placed
in vessel. The end in
(wool 4" long). The
The veins in flower leaves started
to show blue green coloration
- 2 or 3 days, this increased
up to about the end of a week
when flower was well open.
The blue green was dense but
confined chief to the veins, chief
in the largest ones, but also in the
medium & small ones to a less
extent. (1904)



Exp 12

Test with pollen in Sugar Sol.

The pollen of various roses was taken and placed in some sterile 2% glucose sol. some were placed in incubator at 37°C & some left in room temp (warm day in summer)

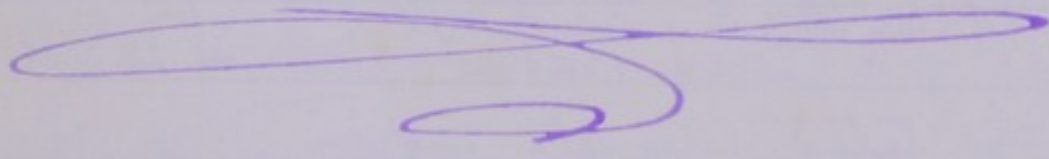
Then were they examined under microscope from time to time those in incubator showed budding of pollen first, usually in about 5 min but varied with different roses.

Those at room temp usually took double time
Madam Charles Worth grew well being $\frac{1}{2}$ in but being in length $\frac{1}{2}$ the diameter of orig pollen
Several tea roses including Souverain de Sol. P. were also tested they all showed some growth but not so quick or so good as Madam C. Worth.

Cells scraped from the green stamens of *Viridiflora* showed no growth, tested on 4 or 5 occasions. (1905)

Exp 13.

Four white Iceland poppy plants were placed under a Sachs' bell jar with a $\frac{1}{4}$ in diam top hole & tube for ventilation & a watery sol of yellow green stain placed between jars. plants which were in flower ceased to grow. In about 14 days commenced to rot. No further flowers opened after first two days. So no flowers could be observed or seeds collected.



Exp 14.

One white bath rose tree
(flowers to open in about 7 days)
was placed under bell jar (as
in Exp 13.) flowers came out
up to about 10 days showed
no change from normal.
plant then withered.
No seeds could be collected.



Exp 15

In the spring of 1906 when rose
trees were pruned. 5 pieces of
Viridiflora were grafted by method
of on to 5 branches coming
off of main stem of a vigorous
growing Mad Charles Worth.

Grafts were bound well with band
& the covered with grafting wax.
These grafts took but binding
was removed too soon so they
all died. †

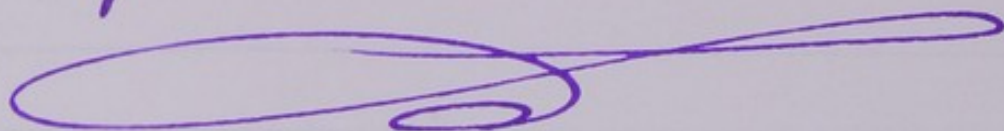
In this case the grafting edge
was made from 3 to 4 in long
made so that buds were present
near cut edges in the hope
that hybrid branches would
appear at junction. - the purple
complement the green but leaving
a individual blue



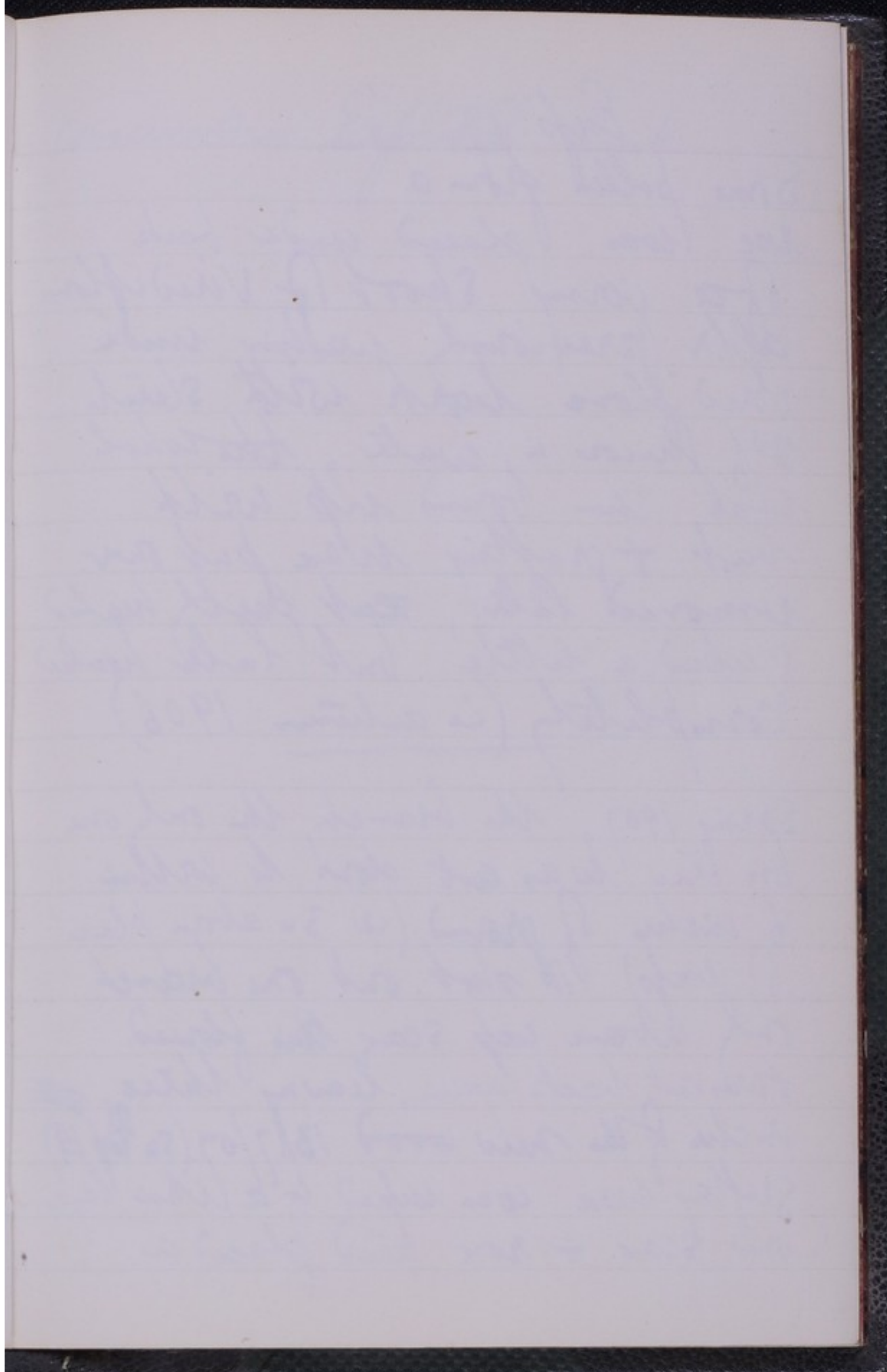
Exp 16.

In the spring of 1906 at same time
and manner as exp 15 only the
reverse exp (ie the 5 pieces of
the Mad Charles Worth were grafted
on to 5 stems (2 on one tree & 3 on each)

of *Viridiflora*
Two took but died for same reason
as exp 15.



rafting-



Exp 17

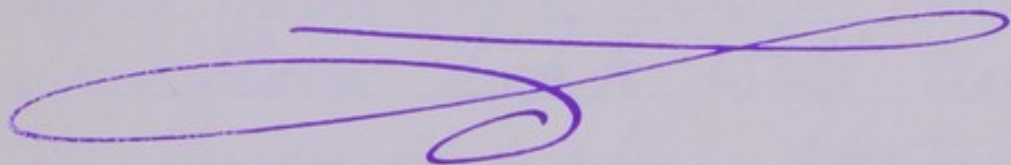
Some pollen from a
rose was placed under bark
of a young shoot of *Vireodiflora*
after previously washing under
Vireodiflora bark with sterile
2% glucose in water, the whole
was then bound up with
bark & grafting wax put over.
removed later, cut partly healed
(cuped a little) but later healed
completely (in autumn 1906)

Spring 1907, the branch, the only one
on tree, was cut down to within
6 inches of ground. (ie 3" above place
of exp) It shot out one branch
only above exp scar, this flowered.
It was cut back again, leaving three ~~or~~
inches of the new wood 13/7/07. (see ²¹ exp 19)
Grafting wax was wiped in a thin layer
over scar & rose bud placed in

Conservative. Eiphotel heat.

Exp 18

like exp 17 only the pollen
was used
Prox hee died.



Exp ~~20~~ 21

13/7/07. a Pro R

was taken just as petals were beginning to drop. ovaries with tubes were cut out. and placed under the bark of a *Vicia* stem. The tree used was the same as exp 17

two, one is incisions (logit) were made one $\frac{1}{2}$ above to the side of the other

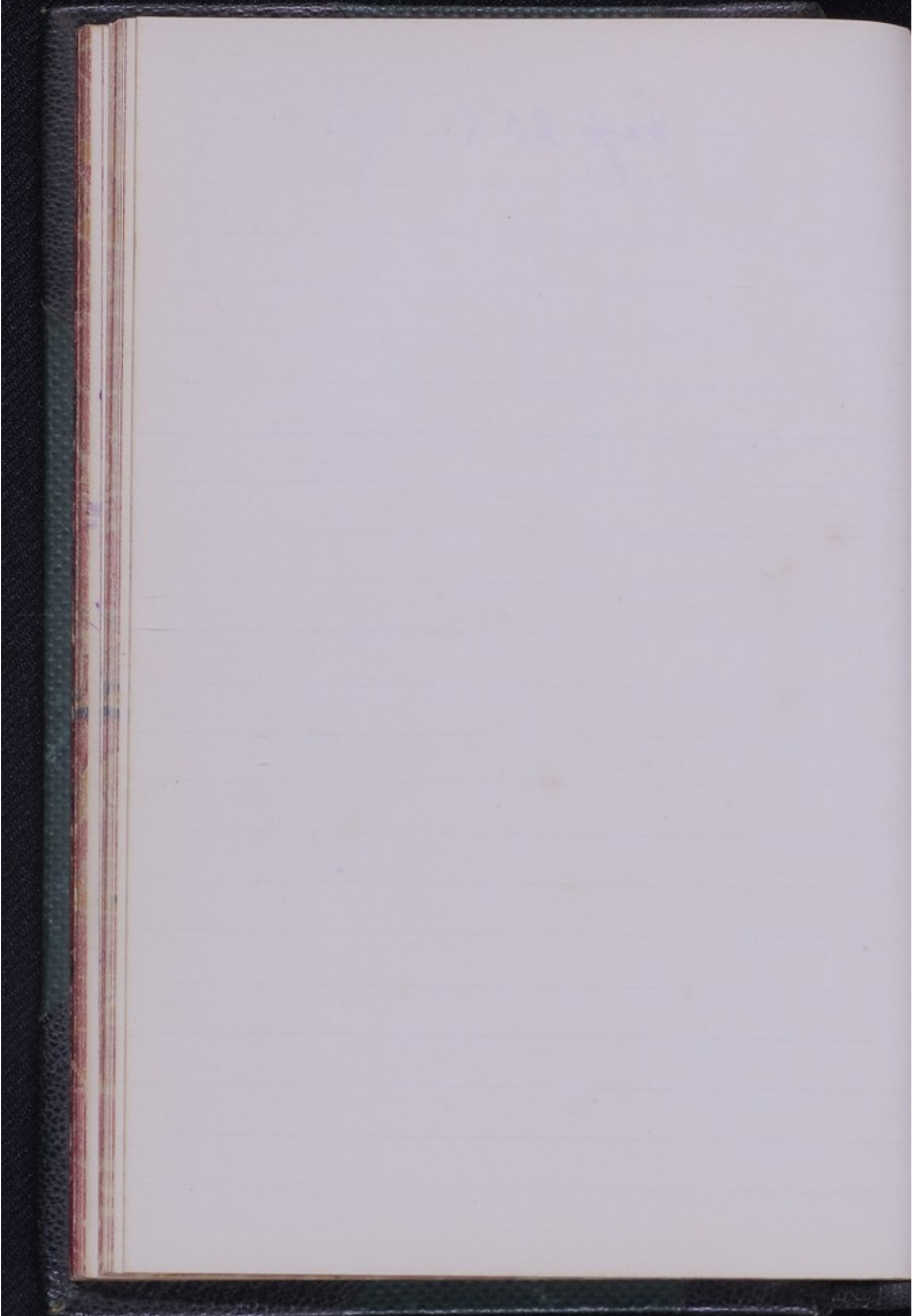
six ovaries were placed under bark of lower cut + 4 under upper cut

the whole was band tightly with bast + covered with grafting wax

The shoot cut off leaving one leaf with a bud above the upper cut of the tree placed in greenhouse

Exp 19

Exp 20.



Exp 21



