

Original

mines
and
mining notes
in the
Province of
Ontario

1871.

X

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1871

ACC. NO. 275856 REC'D 1932

125
10
1250
62
1312



1871

M15874



No. Montreal per

The Exchange Bank

of Montreal

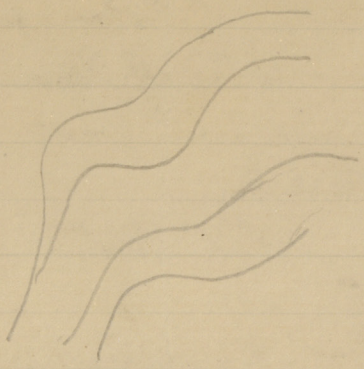
to the order of

Handwritten scribbles and signatures

\$12.

Geo. Bishop & Co. Montreal.

ario



Memo

Morris & Griffin -
Wolverhampton -
Manufacturers of Mineral Art-
Mannes - have bought -
N. Burgess -
VI. R. Lot 14. 16. 17. } Acres -
VII. R. " " } 750

Prospecting is going on in the
above lots - this season (1871) by
N. Davis - but work will likely
be commenced extensively next
Spring - (Phos Lime - Aug 18th 1871)

Mica N. Burgess -

IX Range lot 17. traced 300 feet

" " " 16.

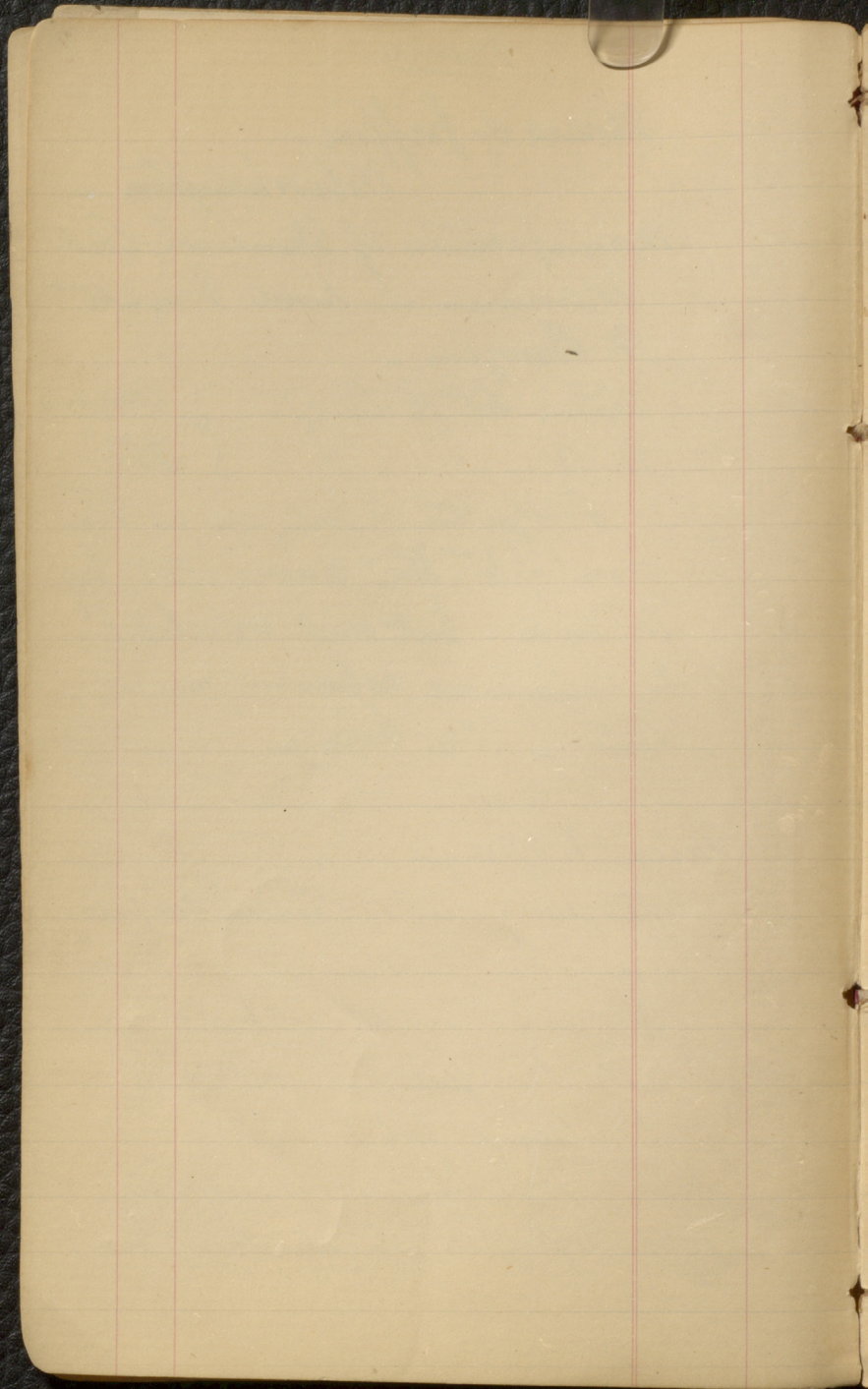
V " " 21

South Burgess

TV Range lot 1 -

These lots have already ^{been} noted in
1863. Rept - (investigate their present
conditions 1871) -

275856



Aug 18th 1871 3

Phosphate Lime - Memo -
Hm N. Burgess

R. Matheson -

✓ N. Burgess lots 2 & 5 - R VIII -
(working) -

✓ Ritchie & Jackson -

N. Burgess lot 3 R VIII

working Manager Mr Hargreaves -
Pelote - (working)

✓ J. Watts - lot 4 do -
lot 6 do this

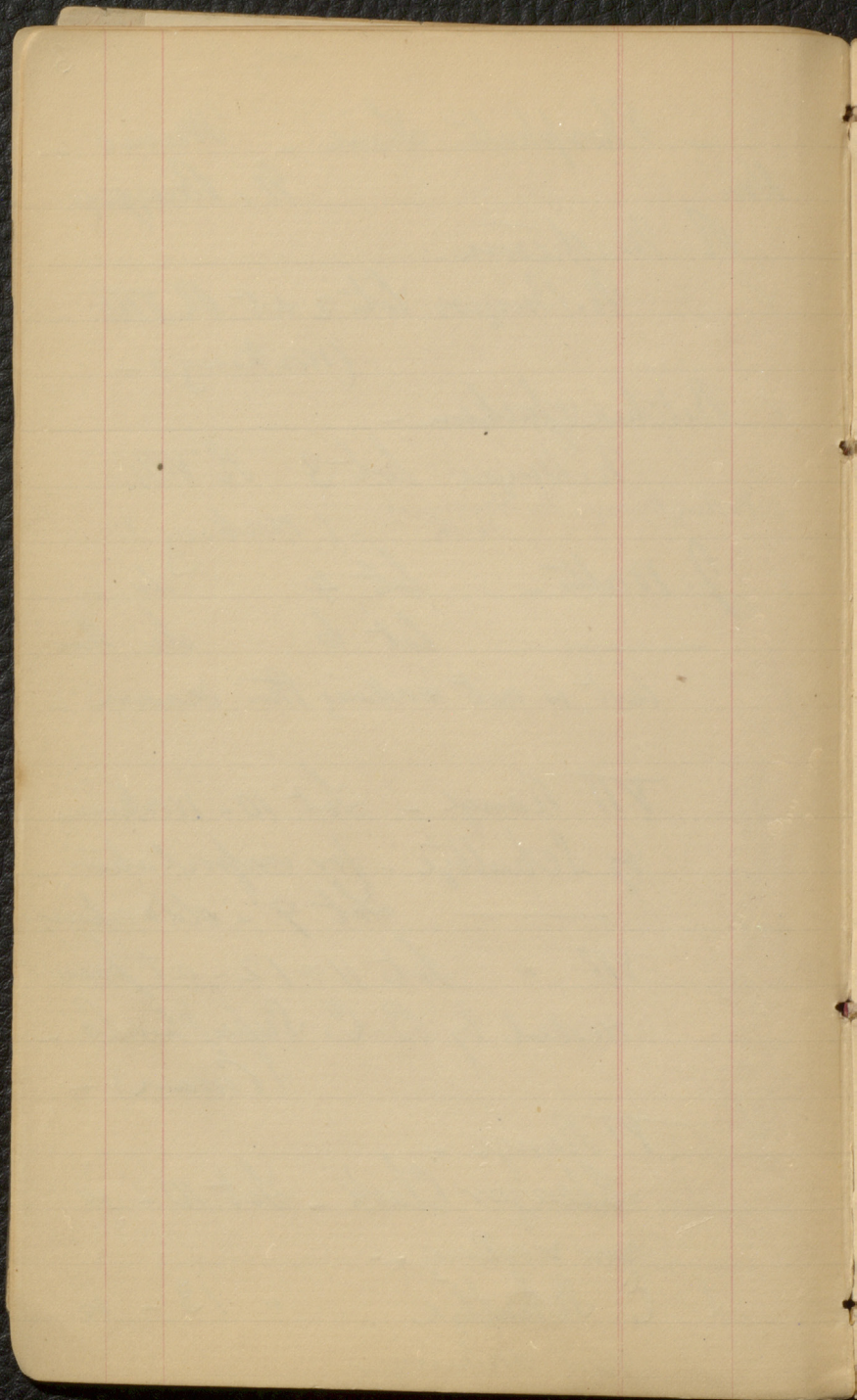
last is not working this season -

VII Range - Lot 10 - working
by Schultze - for importation -
Lot 9 - old workings

VII " Lots 11 & 12 - at present
worked by B. C. Superphos Co -
(Corran) -

✓ VI Range -
Eleazar Clark - Lot 10 - is
now working -

✓ E. Schultze " 13 - is
now working -



Matheson & Bell

✓ N. Burgess - lot 19 - R VII
working now - Aug - 23^d

✓ Montreal Co - " 20 do

shaft 50 feet deep -

Matheson & Bell

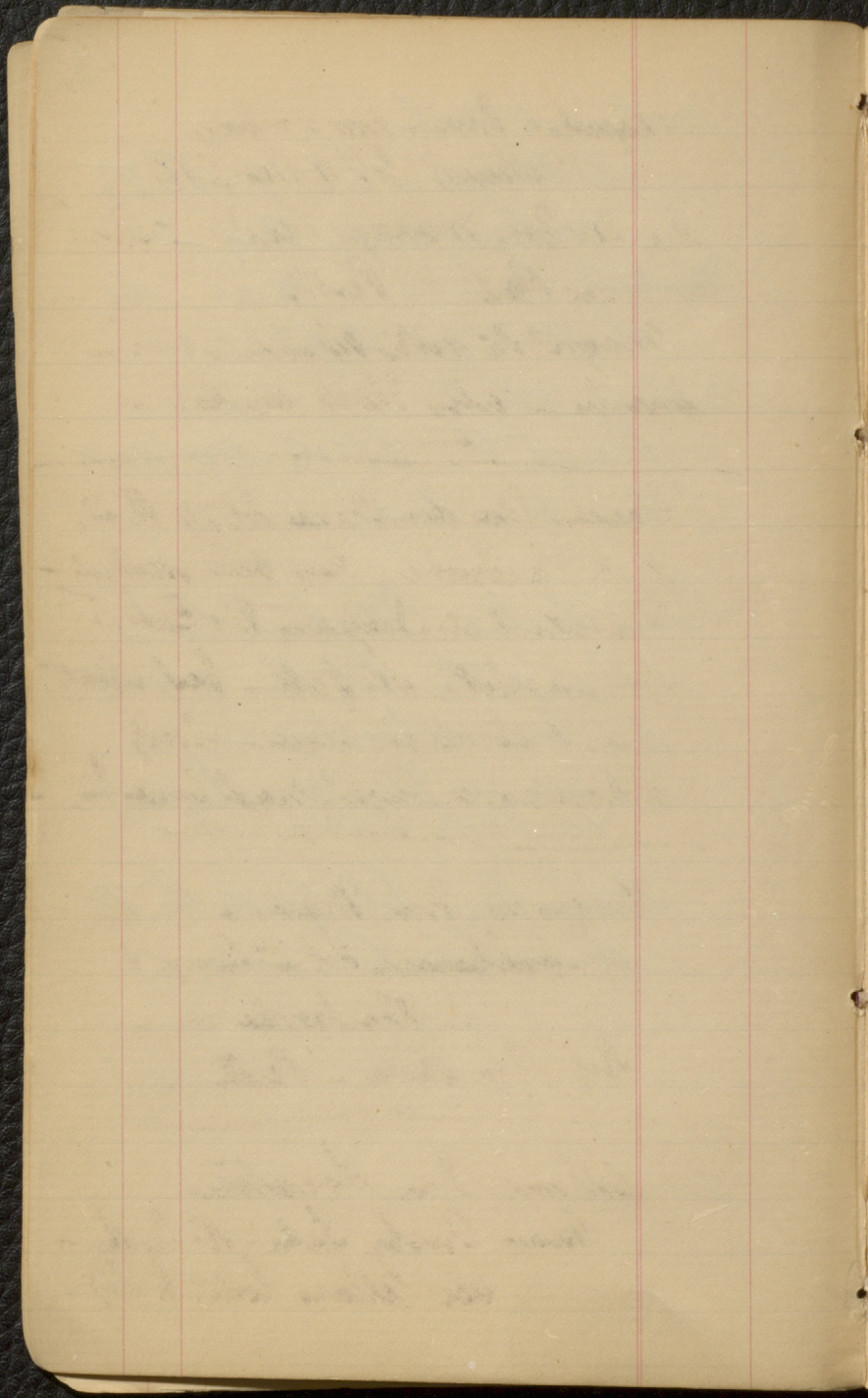
Range V. lot 18.20 work
has been done -

✓ Robert Leckie - Montreal Co -

Range V. lot 16. about
60 tons extracted -

(ask for John Donnelly) -
Yield NNE + NW -

✓ Nobles Bay - lots 9 & 10 R V
American Co -

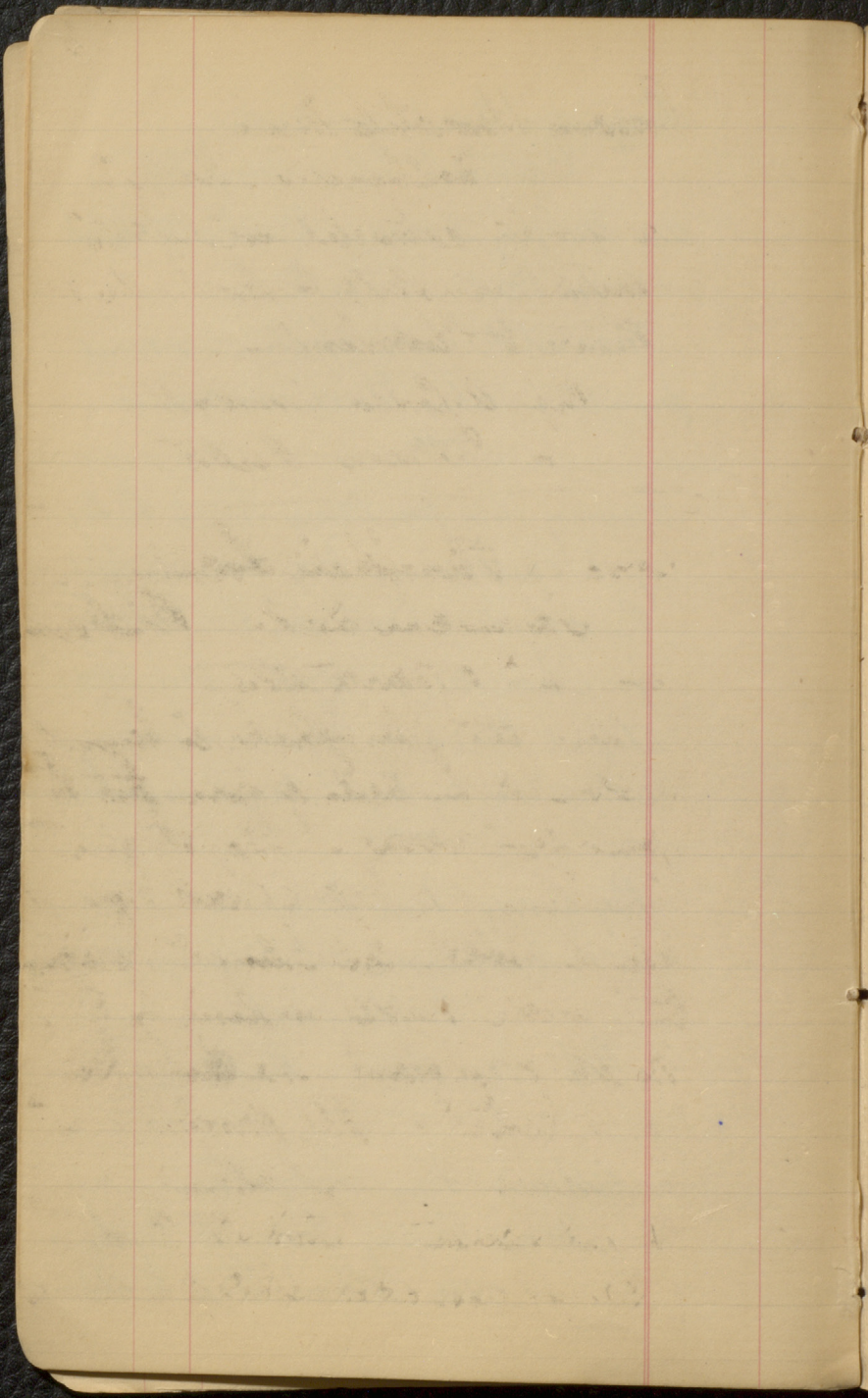


Magnetic Iron - now working
 Bathurst lot 10 Range VIII
 See Mr Gray manages Merchants Bank
 Mr Kent Perth
 magnetic with apatite - + iron
 pyrite - also black mica -

Ferning May Iron Mine lot 14 R.I.
 of S. Sherbrooke - has been worked -
 President of Company Mr Eaton
 of Charlotte N. York - bed about
 12 feet thick in green, clay
 adjoining a highly cryst limestone -

By groves Iron Mine -
~~Sherbrooke~~ lot 3 Range I
 S. Sherbrooke -
 Rep. Geo. Oliver - Perth -

Allans Iron Locations
 near Crosby Lake - N. Crosby -
 see Allans letter to self -



Corrans Hematite Mine

Dalhousie - Range I -

10,000 tons extracted see "Return"
shipped via Perth to Brockville &
thence to Cleveland -

Rep. - A. Corran Brockville
" J. Brown Perth

Corrans Phosphate Location

Opemicon Lake - Rideau
on lot 1 range XVIII

Here the phosphate is beyond
a doubt in beds of from two to
four feet - The strata
consisting of a heavy dark brown -
blende rock, lie almost horizon-
tal with slight incline to the
North westward - the strike being
North East - The phosphate is
a beautiful crystalline green
& red variety - About 3 tons
(20.00) are extracted per diem

minings about 1/2 mile from water -

Mr Corran has taken out up to this date about 230 tons of 2240 lbs - & last year some one hundred tons were bought by Mr Chaffey from Mr Davis for \$7.00 per ton - Owners here are asking & getting from 12 to 13 dollars per ton of 2240 lbs -

No limonite was observed through this lot - The phosphate is mixed in places with Black Jack or hornblende - & a light green mineral - possibly Logansite -

Limonite covers a considerable area on Murray's point Opinicon Lake - enclosing quartz nodules with graphite -

213
236
449
100
549

230
110
380

150 tons additional up to Dec 31st 1871
213 + 236 + 100 = 549 -
20 tons with phosphate -

9

Schultze Phosphate Location
S. Crosby lot 12 Range 11
near Sand Lake -

Rocks strike N. Eastward -

There is a considerable show of Apatite
but not much work has yet been
done - about 15 tons extracted -
very good prospects - easy ship-
ping by Rideau - only a few
chains to draw -

Opposite this lot, on the long
point, there is an extensive band
of limestone - through which
are traces of phosphate -

This band, trends along the
north western side of Openacum
towards the Steam Mills -

- a Heavy dark brownish rock
- b Layer of light green apatite
with black mica 8 to 12 in-
- c 5 feet bed fine pink Calcite
with large p/c of a Crystals -

Dip steep.

9

Harts Phosphate & Iron
Bathurst --

Lot 10 R VII --

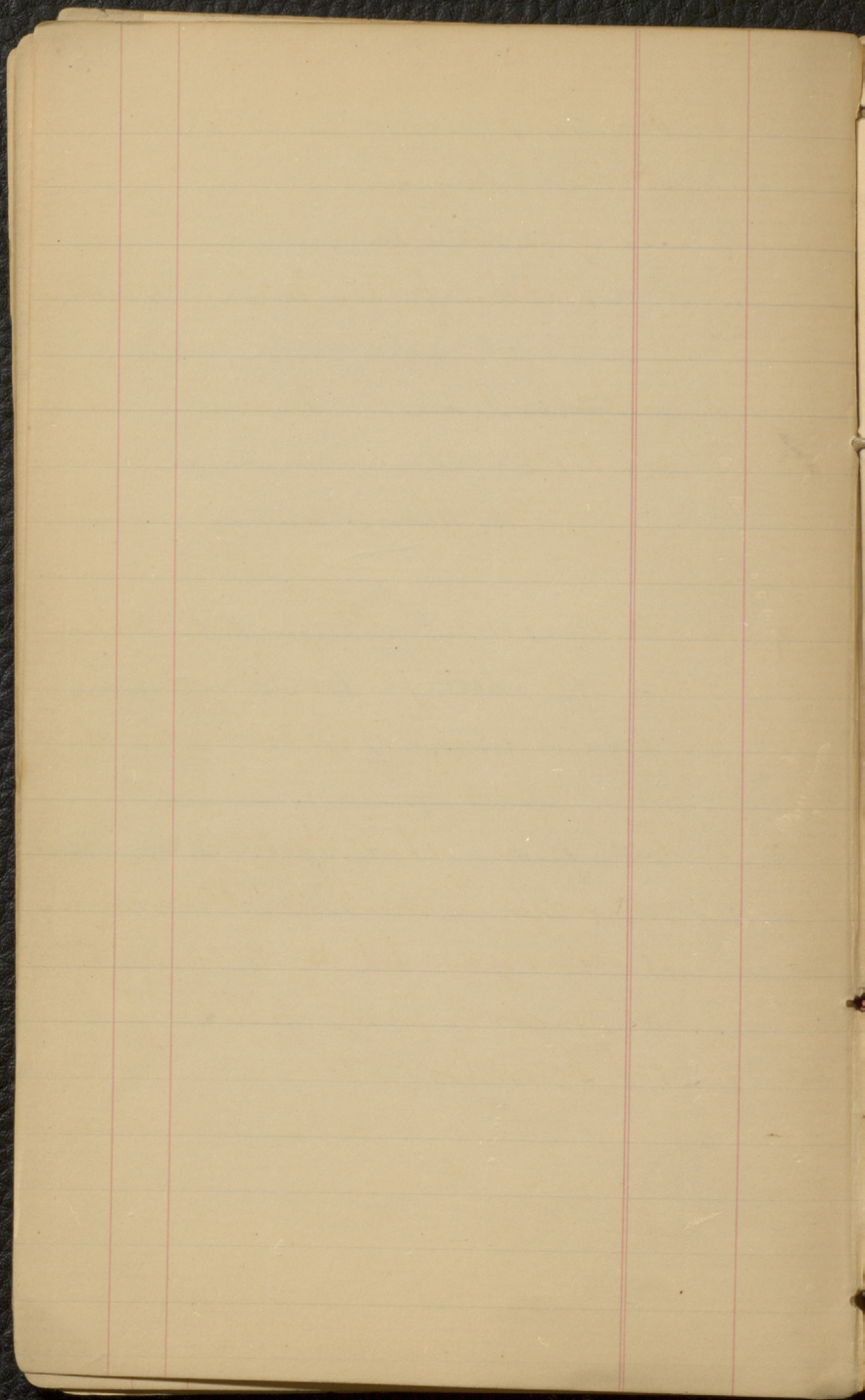
Pink Calcite with a crystals -
& magnesian iron & Crypt-
apathite -

worked for Iron

Perth Company -

Dr Rue of Syracuse N.Y.
on the borders of Dog Lake 2 miles
from Batterssea -

Lead drawn to Kingston
& shipped by the C. T. R. to Montreal



1 Dec 1871 -

Wrote today to

1 Hargreaves Esq

Ritchie Jackson Mines - Perth

2 - Davis Esq Mines "

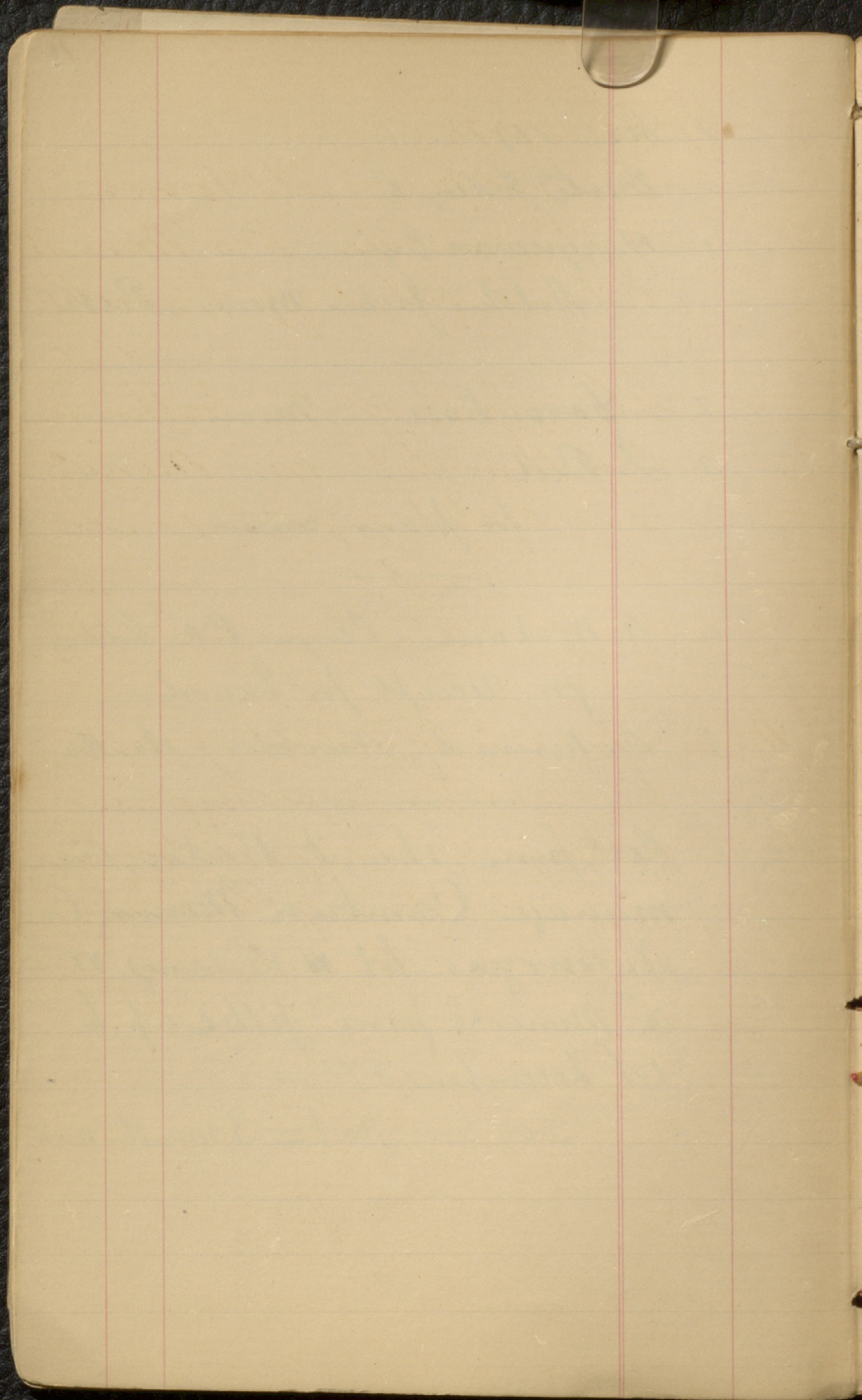
X 3 J. Bell " " "
for plans mines

4 A. Wickwire - Cloyne P.O. - Admⁿ
for receipt for board

5 O. Kennedy Newboro - do do

Dec 16 Rec^d from John F. Baker, Esq
manager Cambria Mining Co
St. Burgess - lot ~~x~~ 13 range VI -
a "Mineral form" filled up to
1st December 1871 -

200 tons No 1 = 3 months work

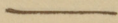


29 Dec - 1871

Received from Gerald Brown
of Playfurnville - two Mineral
Returns filled up to Nov 6th
1871

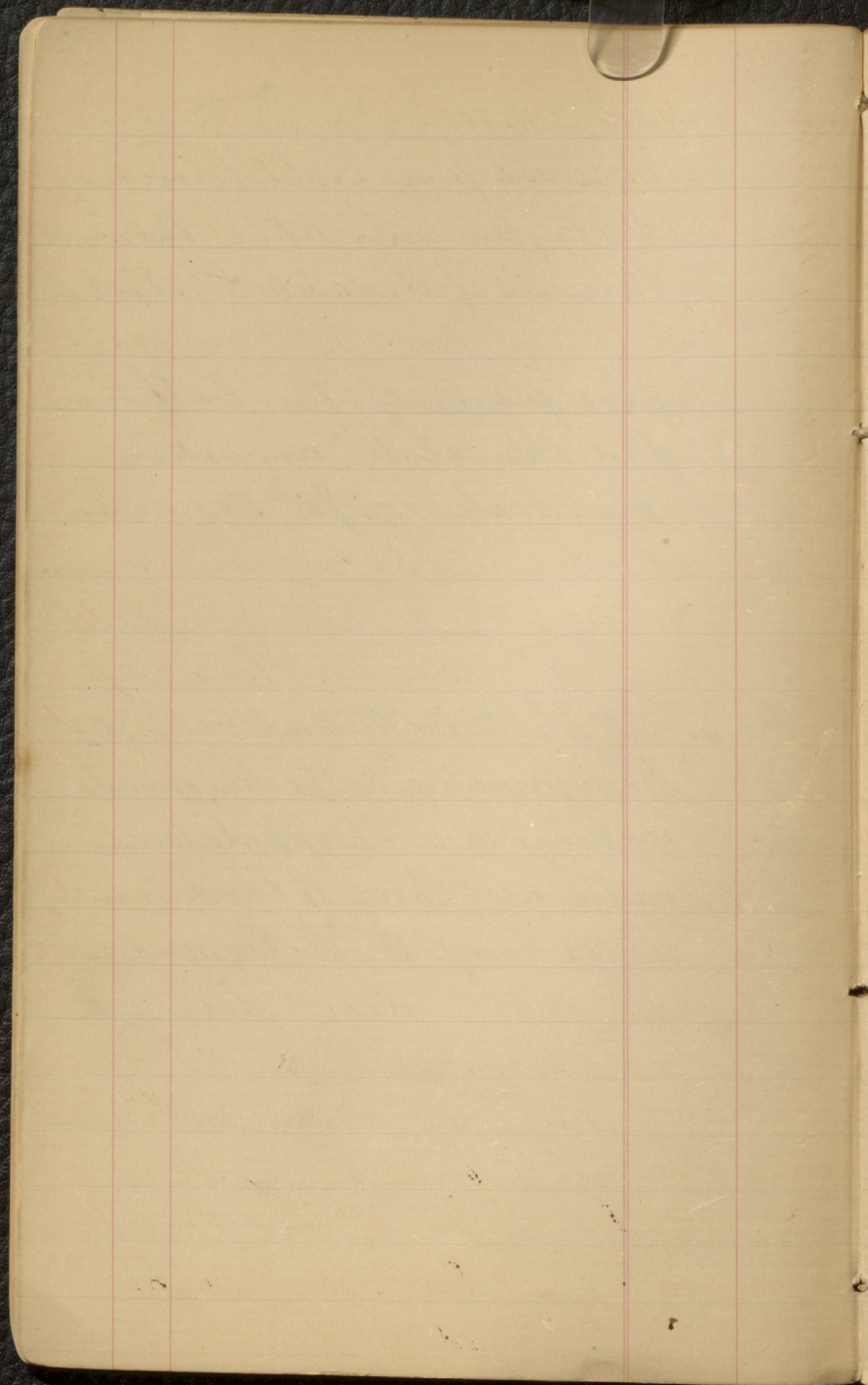
also plans of the Dalhousie
Red Hematite iron Mines -

- 1 - scale 100 feet to 1 inch
- 1 - " 50 " " " "



Memo - Write to Mr Mitchel of Perth
for information respecting former
workings of a Phosphate location
on the west shore of Black Lake
lot 20 range VI N. Burgess -





Lot 10 Range VII N. Bingham memo

12

Mr E. Schultze informs me that
he owns 150 acres on the Powers'
Lot - viz 50 acres NE quarter
100 .. all West half

He tells me that - There is a small
lake about the very center of the
lot which is not mapped -

Immediately south east from this
lake they have uncovered a vein
of mica & phosphate for over 400
feet - the mica is clear & ap-
pears to be of a good quality - it
predominates over the phosphate -
The latter occurs in crystalline
masses and is of the red variety
being more or less mixed with small
sized sized crystals & plates of a
dark mica -

Owing to the mica constituting
the greater portion of the vein, &
the low position of the ground
he does not think the phosphate
can be mined to advantage -

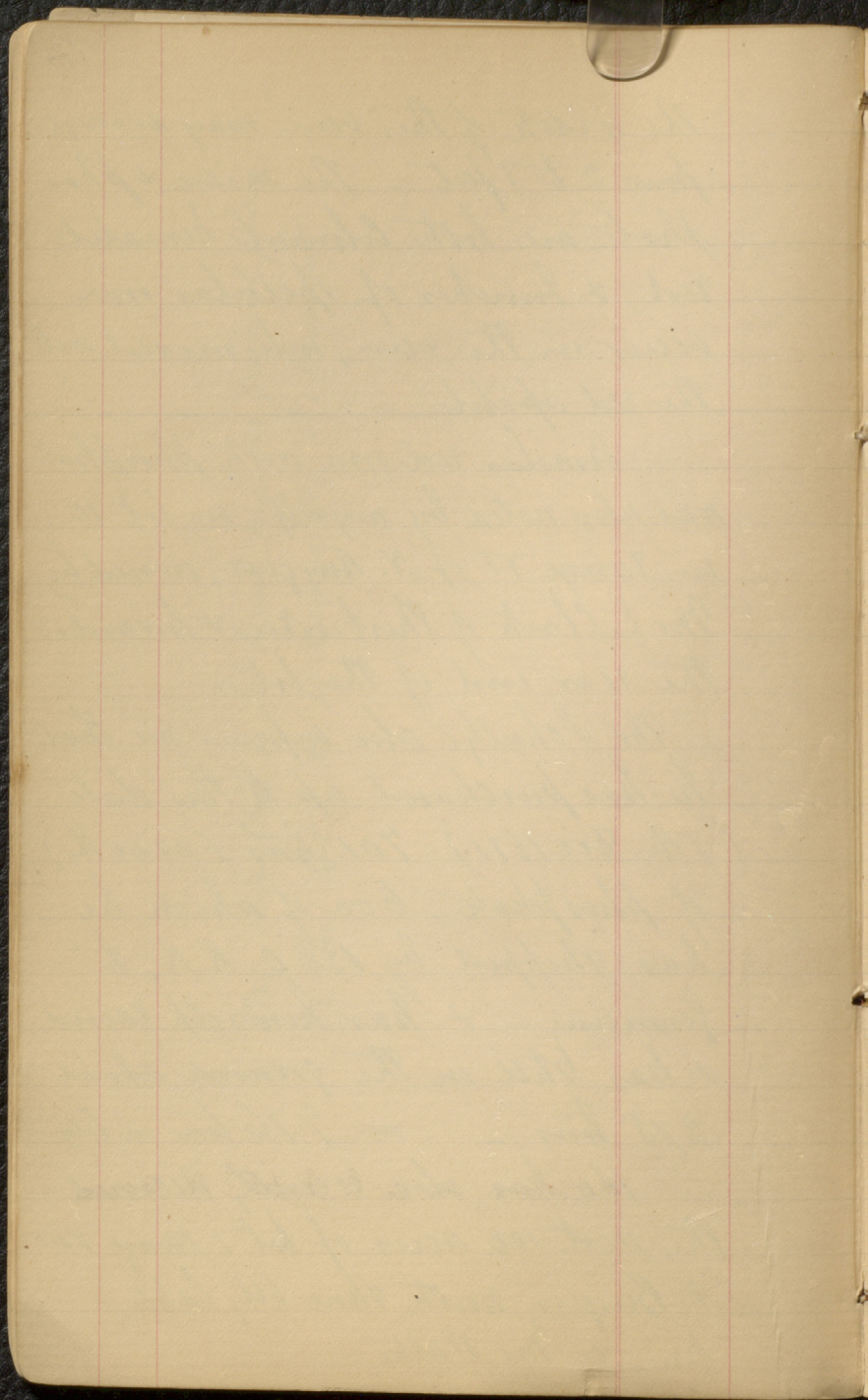
Mr Schultze is to send me a ground plan
of the lot - 900 10 camp VII Mr. Bensen

The width of this vein may average from 2 to 3 feet - The mica & phosphate are both coloured hematite red, & bunches of specular iron occur in the vein, intermixed with the red apatite -

Similar red iron with phosphate was also noted by myself, on lot 10 in range VI of N. Burgess, owned by Mr E. Clark of Sherbrooke - & towards the rear end of the lot -

Mr Schultze also informs me that he has purchased up to this date (7th Dec 1871) 701 tons (2240 lbs) of phosphate, 600 of which he has shipped by B & O. R.R. to Germany - & has himself raised & has still on the ground about -
 275 tons - = 976 tons in total -

He has also recently secured the west 100 acres of lot 1 range VIII N. Burgess, north Shore of Lake - from Mr Watts -



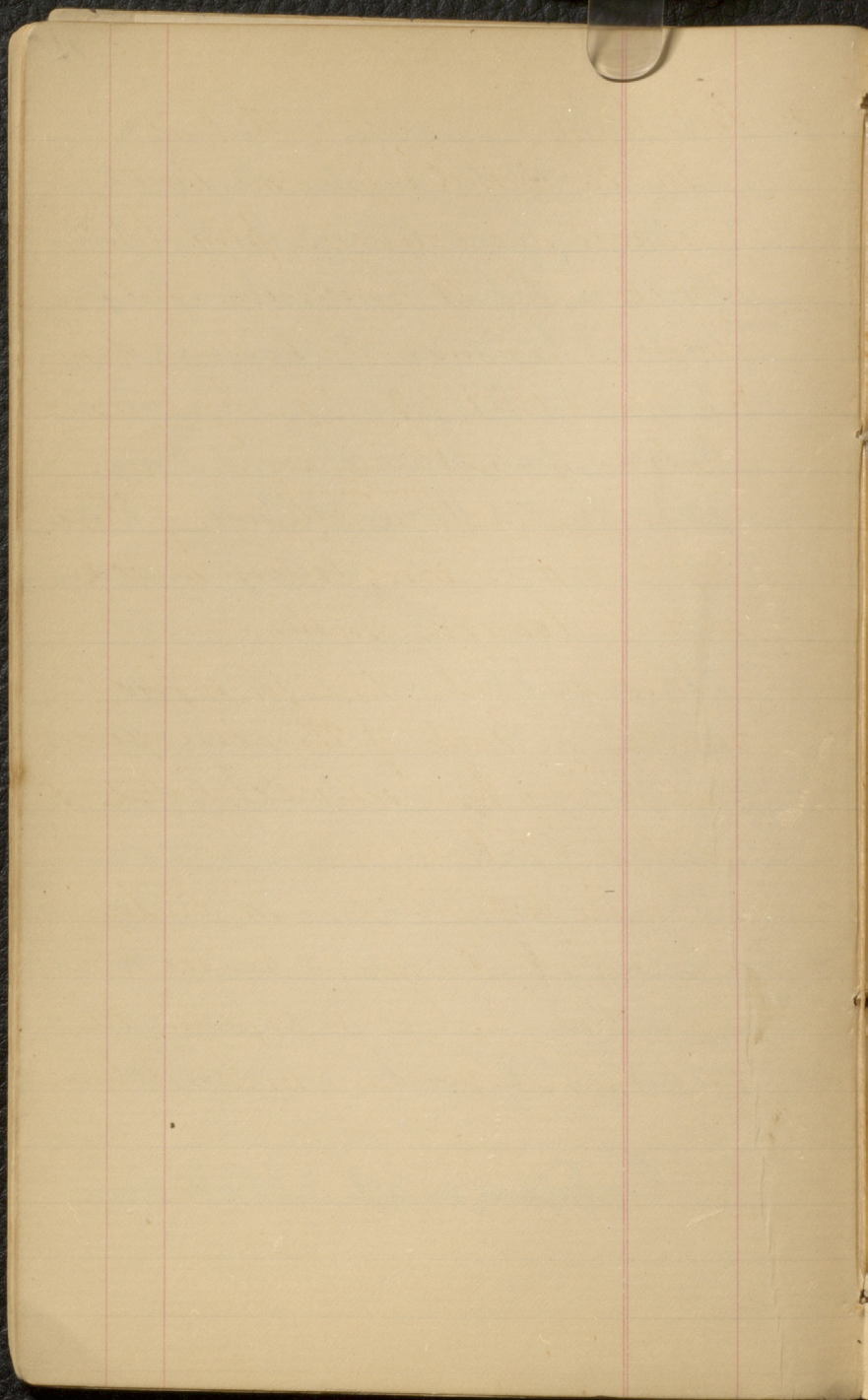
Montreal Apatite Company.

W^m. B. Lambe - Montreal -

During June of 1868 - Mr Chas Roth made a Report for the above Company on their lands in N. Burgess - They then held the following lots - which however, have since changed hands -

Lot	27	in the VIII Range N. Burgess	50	acres
S.W. 1/2	1	" " " " N. Burgess	100	"
	4	" " " " "	190	"
"	2 & 3	" " VII "	295	"
"	8 & 9	" " VI "	335	"
"	12	" " " " "	192 1/2	"
"	24	" " " " "	260	"
"	3	" " V "	120	"
NE 1/4 } SW 1/4 }	12	" " " " "	100	"
SW 1/2	12 & 15	V " " "	100	"

Comprising in all 1,682 1/2 acres -



Phosphate Location -

15

see Bell's letter

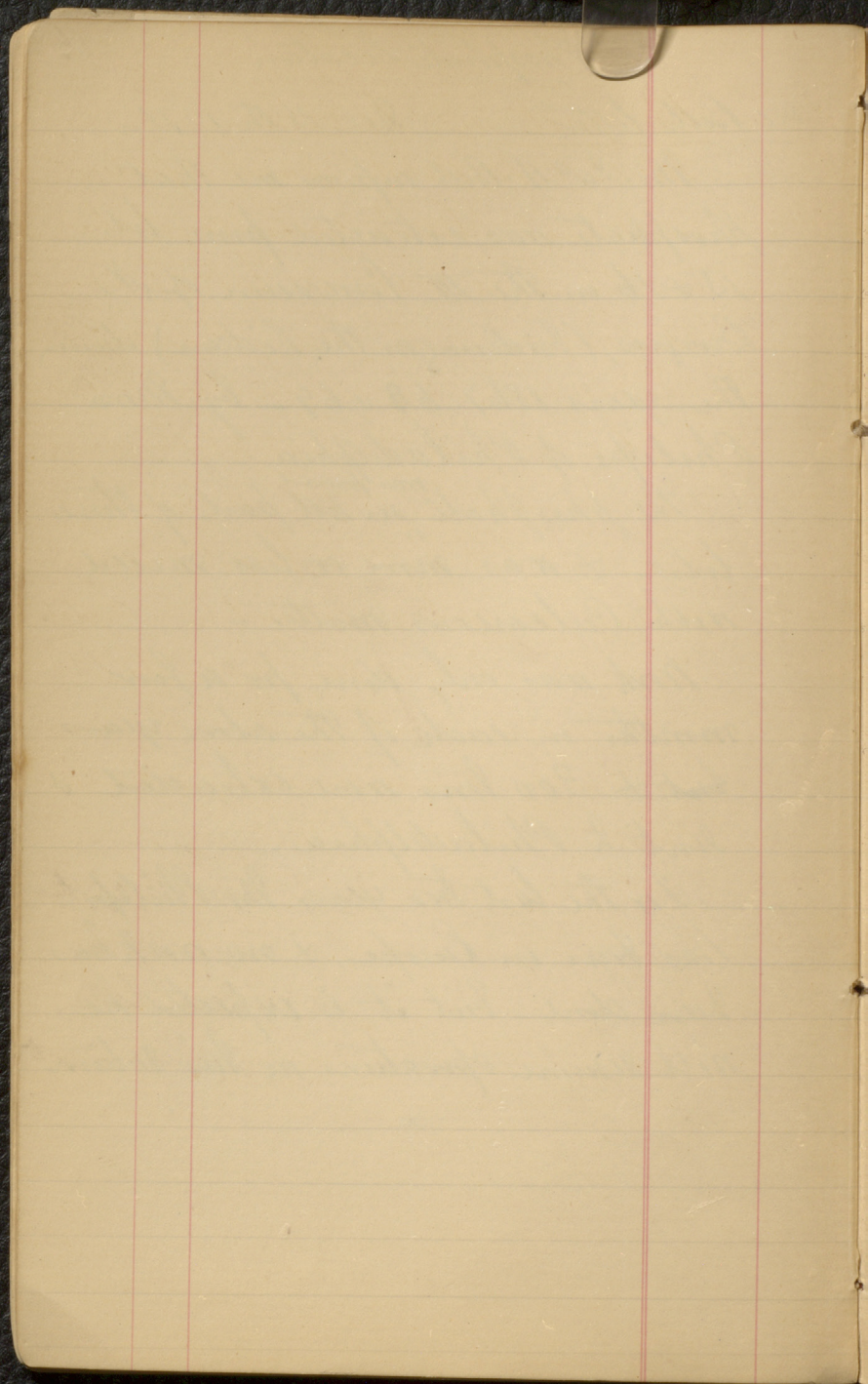
Dec 15th 1871 -

Mr Jas H. Bell informs me that phosphate was extracted from lots 15 & 16 in the III Concession of St. Bourgeois, (bordering on the Rideau) during the years 1867-68 & 69 - by Messrs Philips of Philadelphia -

The phosphate ^{was found} in all parts of these lots - & was more or less mixed with Calcareous matter -

Work was only done for a few months in each of the above years but 300 tons were extracted & sent to Philadelphia -

For the last two years Mr Philips has been in Europe, & no work has been done - but it is expected he will resume operations on his return -

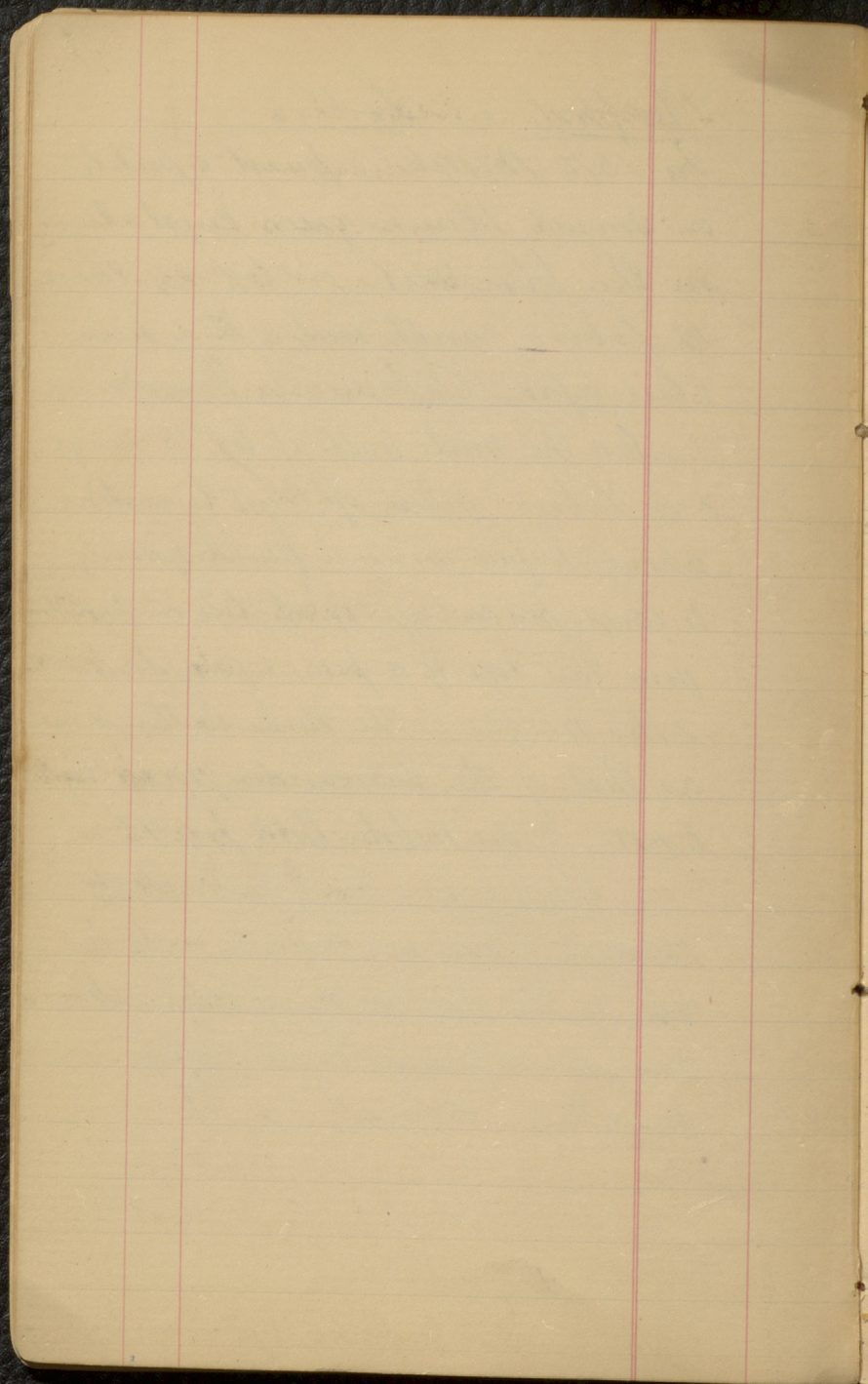


Phosphate in Loboro -

In 1870 Mr Webster found apatite in small bluish green crystals in the loose soil on lot 13 - range 1 x Loboro, north end - It is here close upon Calcareous bands -

On the north half of lot 18 range x of Loboro, a bed of Cryst limestone about 10 feet wide is found having a large per centage of apatite in crystals from the size of a pea, upwards to 2 lbs weight - The strike is the same as that of the surrounding rocks, viz E & W - See Webster Book, page 73 -

Phosphate - Devil Lake - Bedford -
Phosphate of lime was found by one of my men on the shore (south) of Devil lake near an extensive band of white Cryst limestone - 1871 -



Galena - Bedford -

In a note to the Geological Report for 1858
 pg 48 - some 5 veins are noted traversing
 the rocks (limestone) on lot 19 range VII
 of Bedford, the direction of these being
 in a North North West direction - or more
 correctly $N 85^{\circ} W$ -

Another similar series of veins of galena
 is noted by A Murray on lot 21 range VIII of
 this same township - Report 1852-53 pg 143 -

Near the line between 18 + 19 lots of the same
 concession are two more galena veins -

Most of these veins are accompanied
 by dislocations or faults, one of which
 noted by Mr Murray, is a break of
 about 150 yards - in the vicinity of
 lot 21 range IX - in a mag^e direction
 $N 25^{\circ} W$ -

On lot 14 range V - Bedford is galena -
 2 shafts on East $\frac{1}{2}$ of lot - 10 feet square
 one to the depth of from 35 to 40 feet -
 both full of water -

Rock - a coarse graphitic Arg^t limestone -

Webster
 Hunt

Murray

Murray

Webster -

Probable Subscribers to Hanks & Co's

Mrs. H. Vennor -	1
Mrs. E. Vennor -	2
Mr. Popper - + 3 Colours -	3
Lindsay -	7
Murray - W.	8
Sinclair -	9
Baldwin -	10
Wragg - + 5 Bellville	16
Dr. J. A. Grant + 6 Ottawa.	23
Silchardum + 5 Kempton	28

50
50
2200

50 4 | 50
50 12.50
25.00

3^d Feby 18

Gatting's Mine - Marmora

N. E. Corner Lot 9 - VIII -

30 Acres -

6 miners - 2 shafts - 3 each shaft

Vein - N + S -

Total length traced - 1 1/2 miles -

Average width - 10 feet -

Depth of shafts - as follows -

No 1 - 55 feet -

" 2 - 48 "

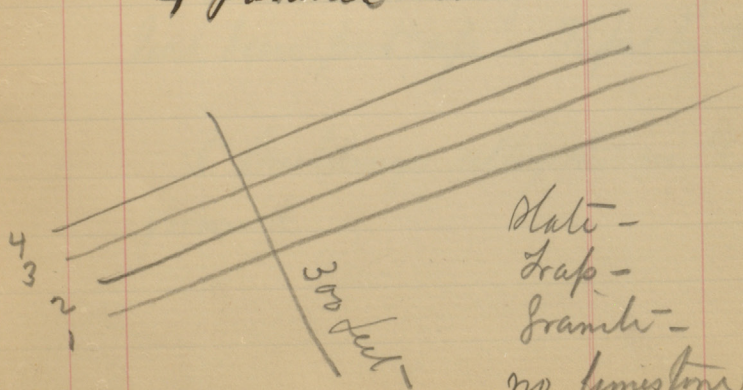
No 1 shaft 80 feet distant from No 2 -

Quartz with mispickel -

No 3 shaft 20 feet -

300 feet west of main vein -

4 parallel veins -



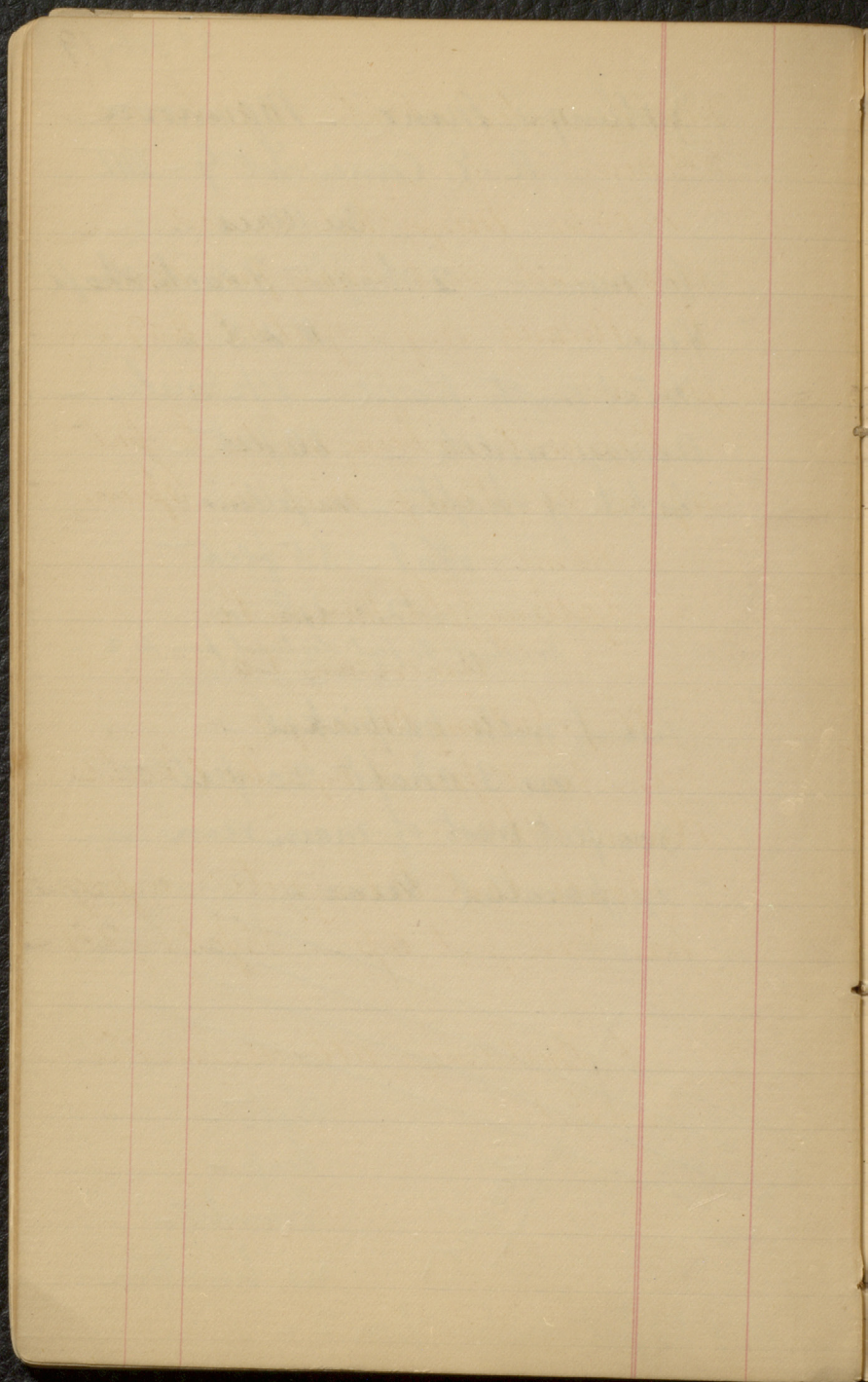
Slate -

Trap -

Granite -

no limestone -

No 1 80 feet distant from 2 -



19
makes water about 50 gallons per
24 hours -

1500 tons Misspickel raised -
1100 pounds sent away from mine -
to Newark N. J. - yielded \$39.00 -
per ton -

Preparations being made to put
up a 20 stamp Mill in Spring -

Name -

Gatting Gold Mining Co -

American Co -

W. J. Gatting Manager -

Veins first found by a Mr O'Neill
during 1868 -

Since last taking note - a forge
has been put up - 36 feet by 24 -

5 Buildings altogether on the
ground -

x

Two samples submitted to Dr. Greenwood by Mr
Chris Roth from this mine - June 71 -

The following epide was returned -

Gold - 012	3.10	70.00
Silver - 028	8.3.8	10.60
		<hr/>
		80.60

of 50
12

20

Hawkeye Co - Jones Iowa
Shaft - No 1 - 46

2 - 30

Lot 10 Range VIII - E¹/₄ -
limestone west -

—— Not working -

Neill's shaft - Lot 14 - ~~RXX~~
N¹/₂ - Opening made in a
vein of Misspickel -

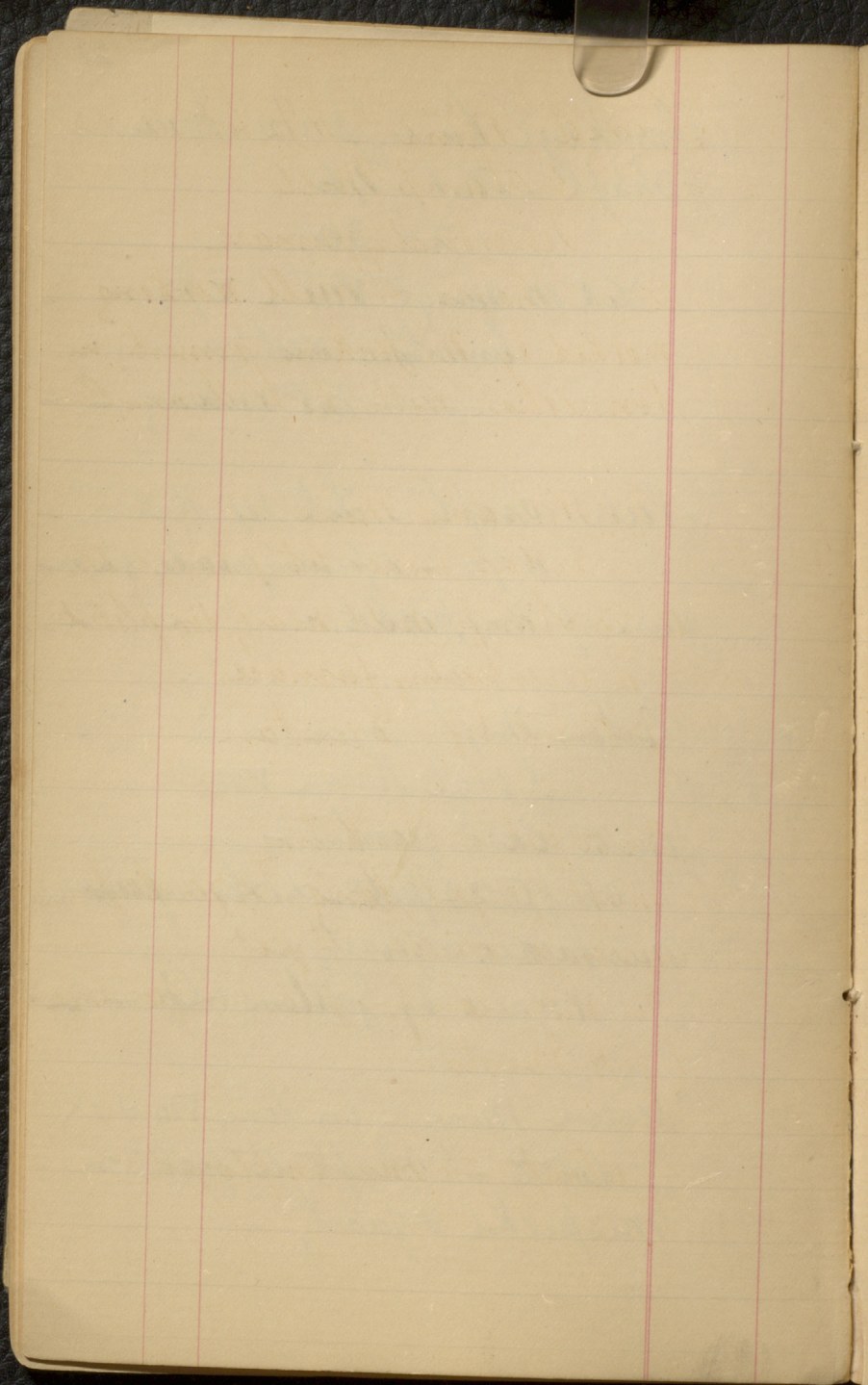
* Gillen Shaft -
Lot 6 Range VIII

North East quarter -

Shaft 22 feet - & other openings
Misspickel & quartz -

owned by Gathings & Co -

Severn Mine - on Line VIII & IX
lot 8 - Shaft 15 feet in
Misspickel & quartz -

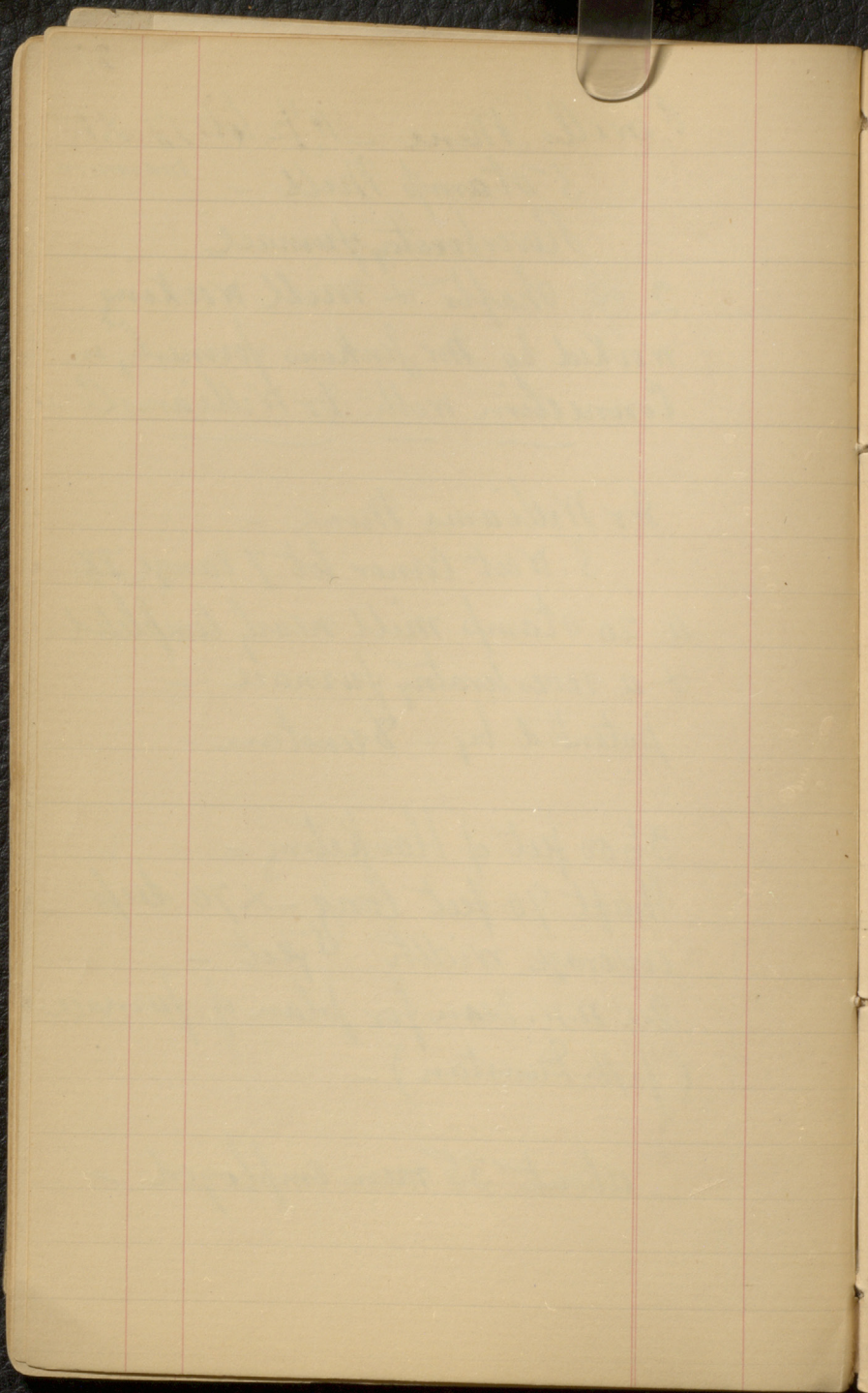


Powells' Mine - N¹/₂ lot 17-X1
 5 stamp Mill - *marmora*
 Reverberatory furnace
 2 shafts & mill working
 worked by Mr Jenkins formerly, in
 connection with Dr Williams Co -

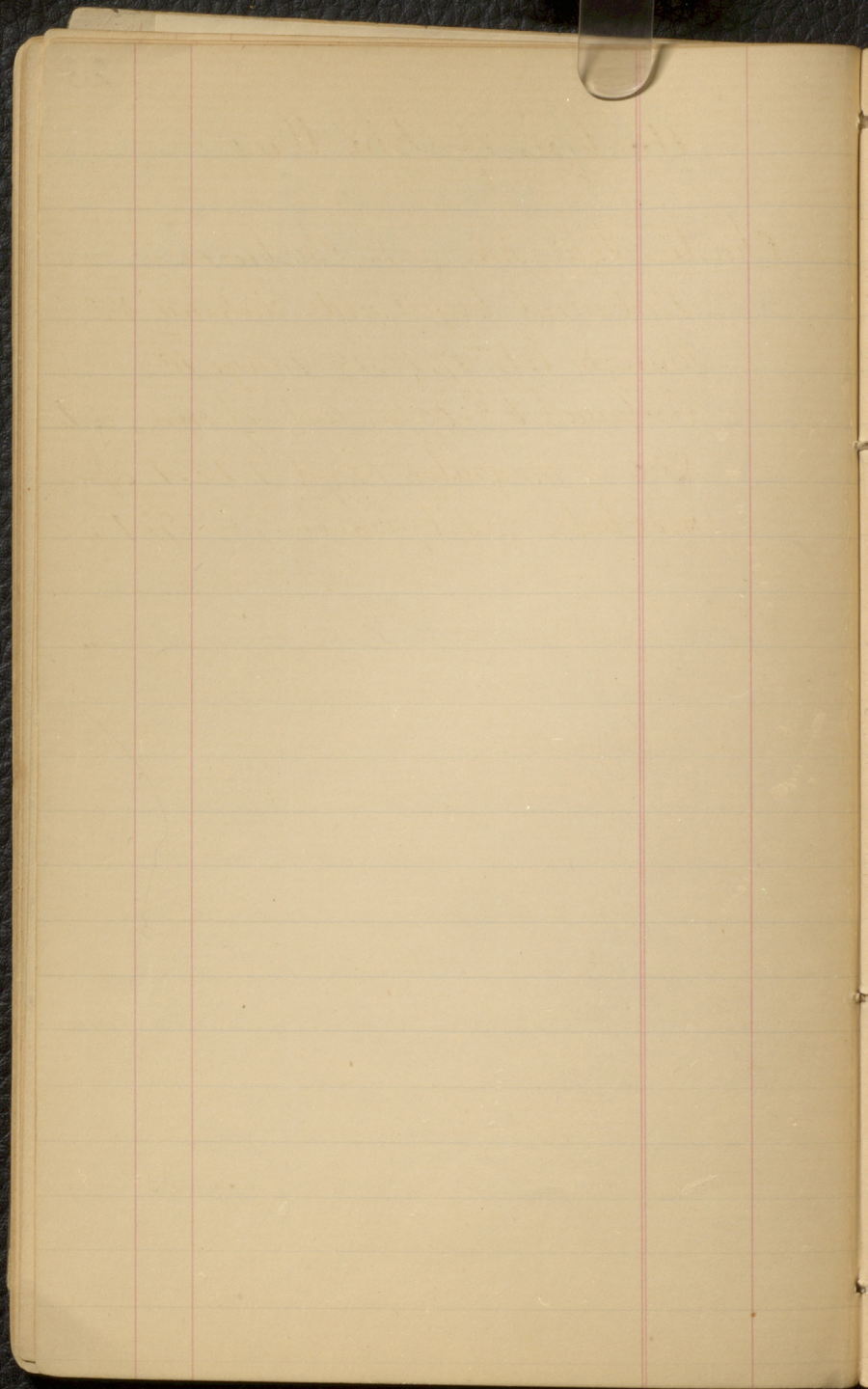
Dr Williams Mine -
 S. West Corner lot 7 range IX
 a 20 stamp mill nearly completed
 & a reverberatory furnace -
 patented by - Dunstan -

3600 feet of blanketing -
 Shaft 90 feet long - x 70 deep -
 average width 5 feet -
 see W. W. Dean for plan of furnace -
 (J. H. Dunstan) -

about 35 men employed -



Gold found on lot 8, Range IX
" 1/2 " 9 " "
Dr Williams & Co —



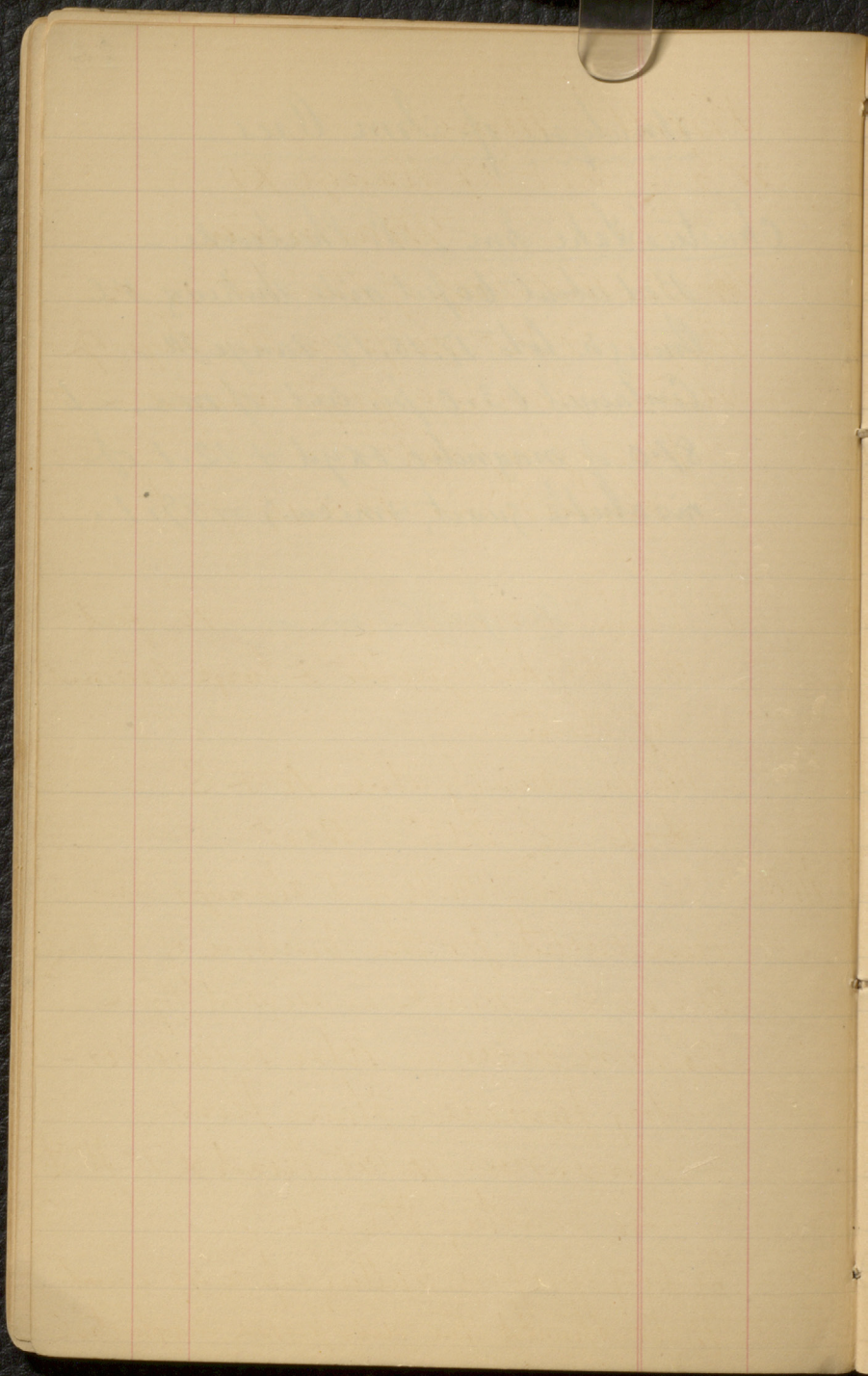
Analysis of Iron Ores -

Christie's Lake Iron + S. Sherbrooke -

Bed about 60 feet wide striking N.E
through lots 17, 18, 19 Range III

Contained 63.0 per cent of iron, = to
87.0 of magnetic oxyd + 12.1 of
insoluble quartz & mica; = 99.1.

See further on -



Porrell's Mine

N $\frac{1}{2}$ - Lot 17 Range XI

Mamora

On the west half of this lot is a shaft - 50 feet deep on the dip of vein - having a perpendicular depth of 47 feet -

Dimensions 10 x 14 feet -

1 Vein averaging 10 feet
 mispickel quartz - & large amount
 of slate -

Strike nearly due N & S

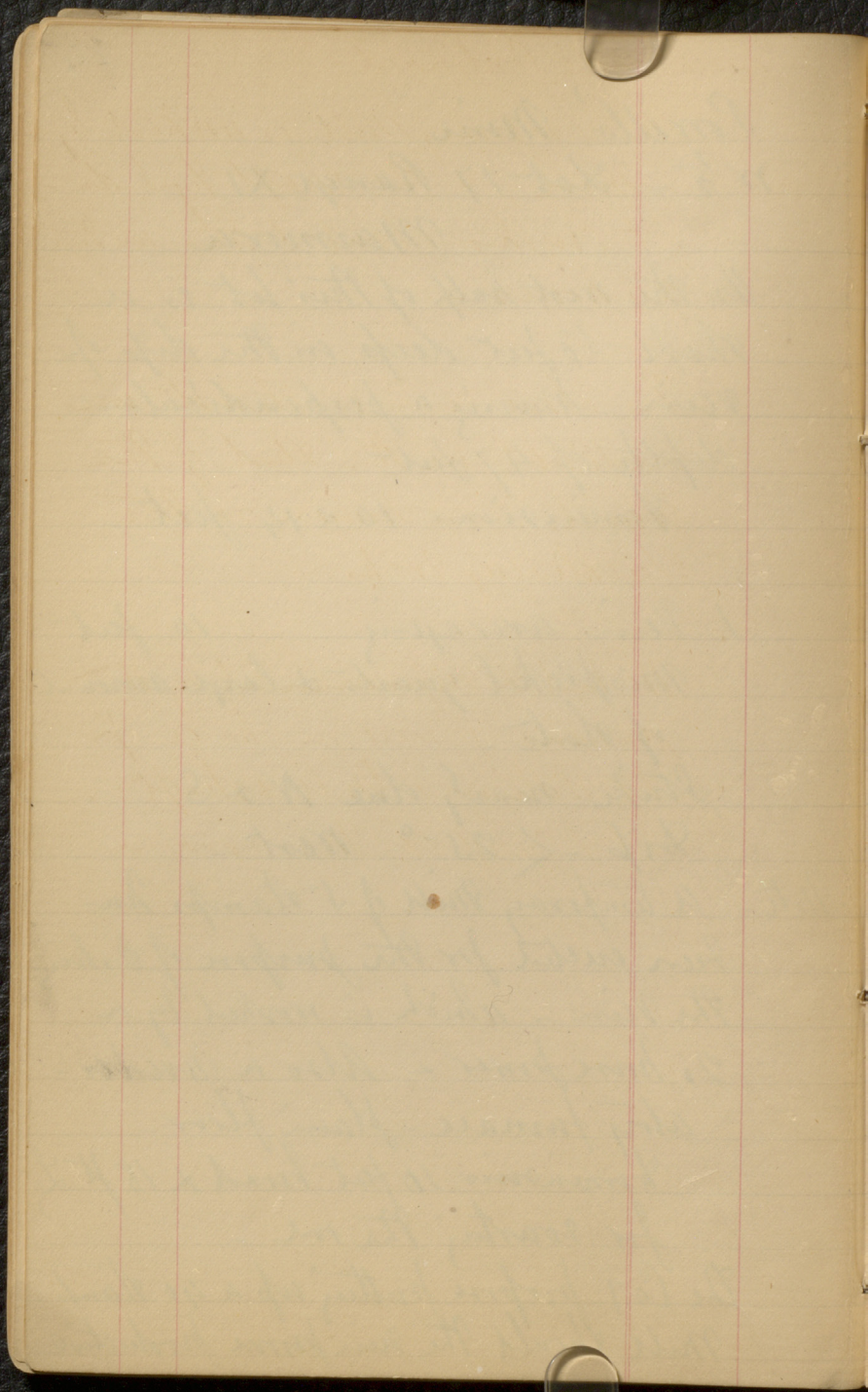
Dip $< 25^{\circ}$ West -

Note - A temporary mill of 5 stamps has been erected for the purpose of testing the vein - which is worked by a 20 horse power - Also a reverberatory furnace - plain floor -

Dimensions 10 feet broad x 18 ft. Lg

for roasting the ore -

The Co. propose putting up a 40 stamp mill should the vein prove productive



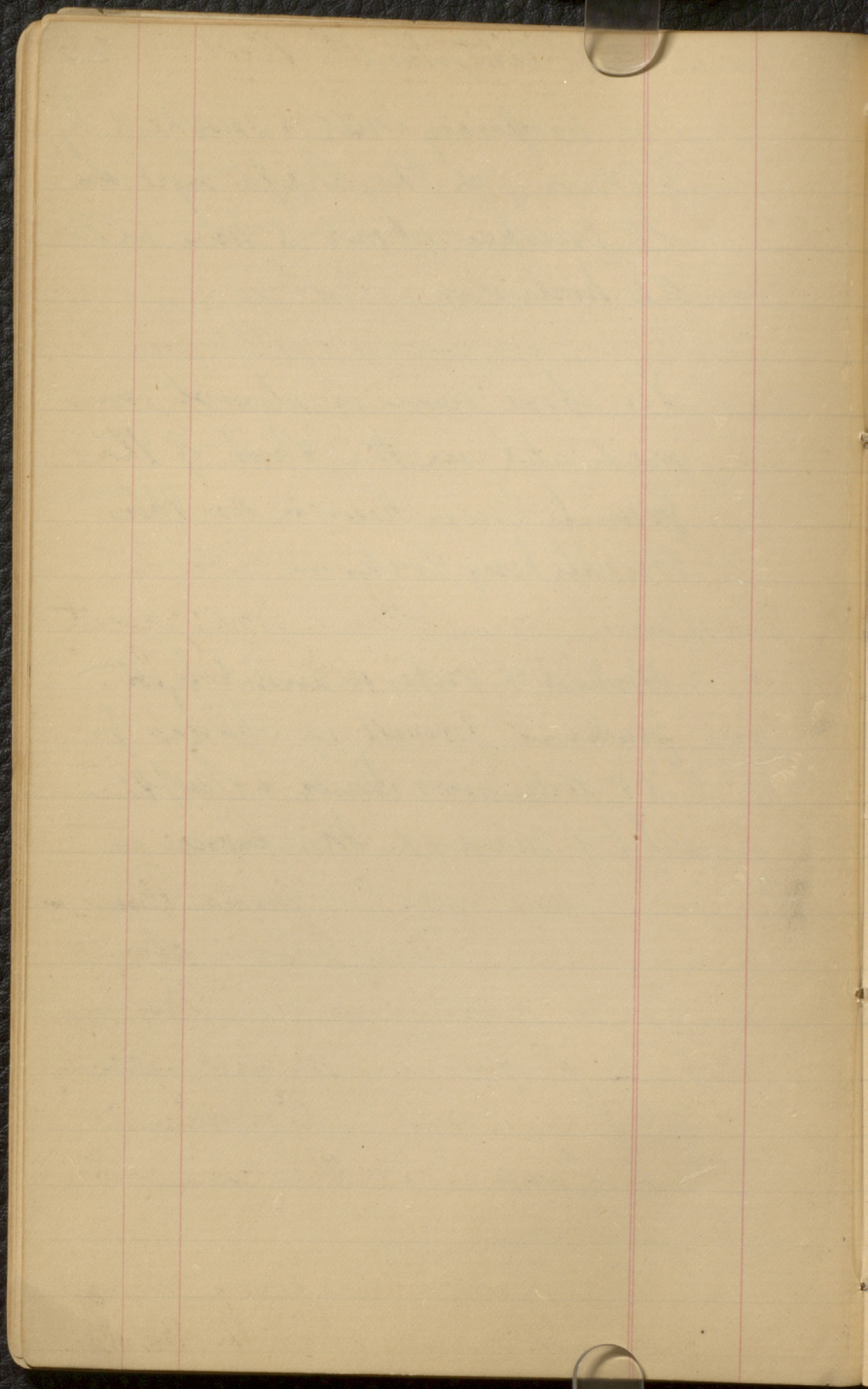
Powell's Mill Continued -

25-

This temporary Mill, is worked by 3 men, & the shaft by 5 do -
It crushes about 5 tons in the 24 hours -

The above vein is almost immediately on the west of the granite area known as the Buckleberg rocks -

Worked & superintended by Wm Jenkins former in charge of Dr Williams Mill & shaft -
lot of Gangs & Marmona -



Newtown 27th Jun 1871

Mr Wm Chaffey is in the management of the Chaffey magnetic iron mine, located one mile from Newtown -

The mine has been wrought more or less every year since first opened.

The cost of raising - is one dollar per gross ton - freight to Kingston seventy five cents & from there to Cleveland one dollar - Consequently it costs two $75/100$ dollars per ton laid down at Cleveland - Ohio -

Mr Fryfield is manager at the Matthews mine - Sit 1 Range VT common known as the Yankee Mine - South Crosby - It is located about one hundred rods from the "Chaffey Mine" - It has been wrought - steady since first opened - Cost delivered at Cleveland about the same as the Chaffey Mine -

The Howe Iron Mine in Bedford is covered about the same

Note

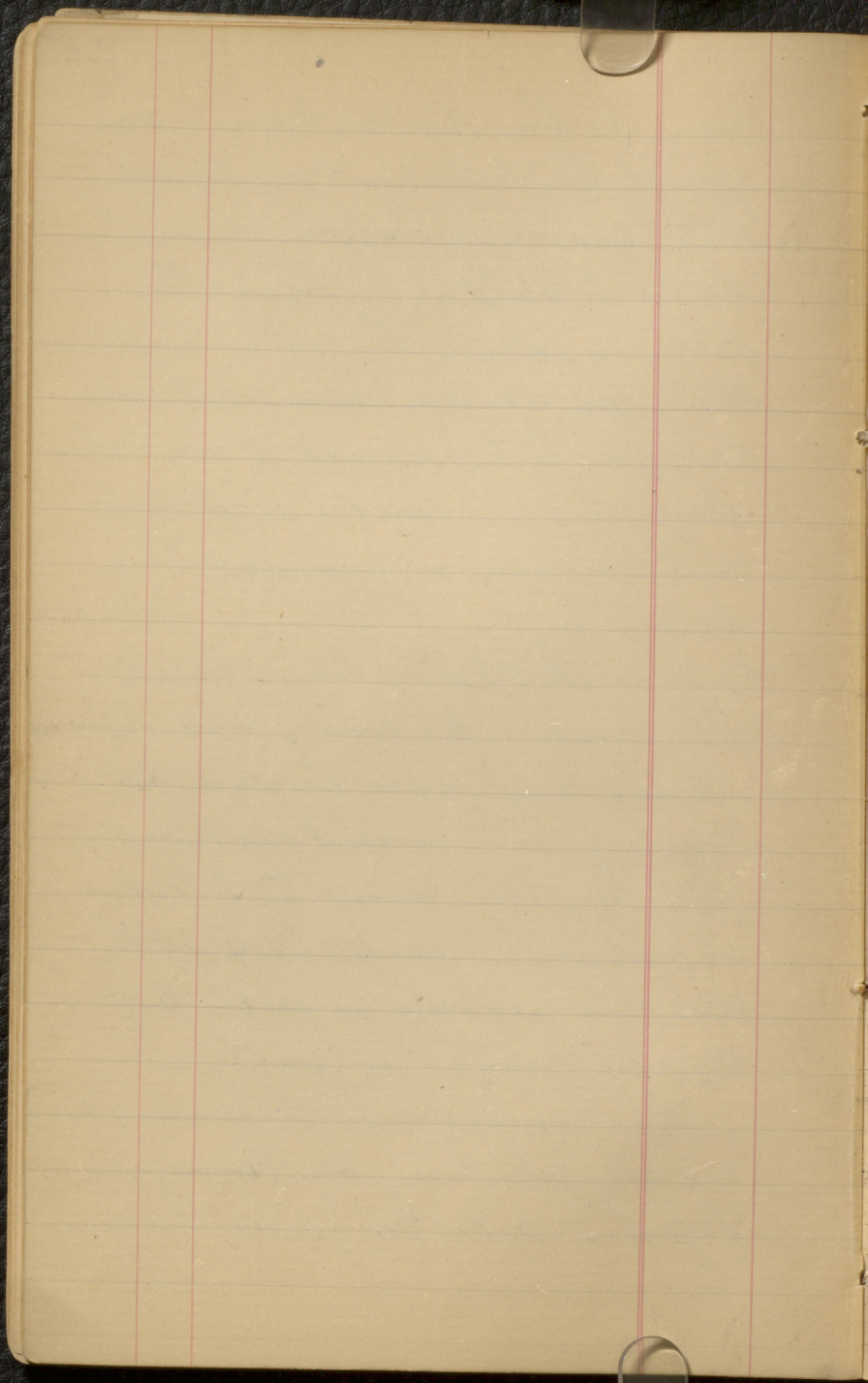
From Home's Mine to West point is 14 Miles
on a very sandy & shelly road - Cost
for drawing \$4.00 per ton -
Will not pay -

time as the Newboro Mines - was
 opened this summer & one hundred
 tons drawn in waggons fourteen
 miles to Westport Village on the
 Rideau Lake - The quality is poorer
 than the Newboro mines, but will
 not pay to be wrought to any extent
 at present - Iron ore in St. Cooby
 & S. Sherbrooke is unlimited ?? in
 extent -

Phosphate of Lime

There has been two beds of Phos. Lime
 opened this fall in the South west-
 Corner of South Cooby & one hundred
 tons has been raised by S. Poole
 on Rideau - Mr Wm Chaffey tells
 me there has been no proper test
 regarding quantity or quality -

The Burgess Phosphate Mines which
 are very extensive, see Yennors
 Report - & Mr Jos Jordan Broom's -



~~Chapman~~

Brief Report
on the
Mineral Location
Lot 6 Con. VIII
of the
Township of Abarnon

28
Cops
Oct 21/71

To Messrs Dowin, Blomfield & Associates -

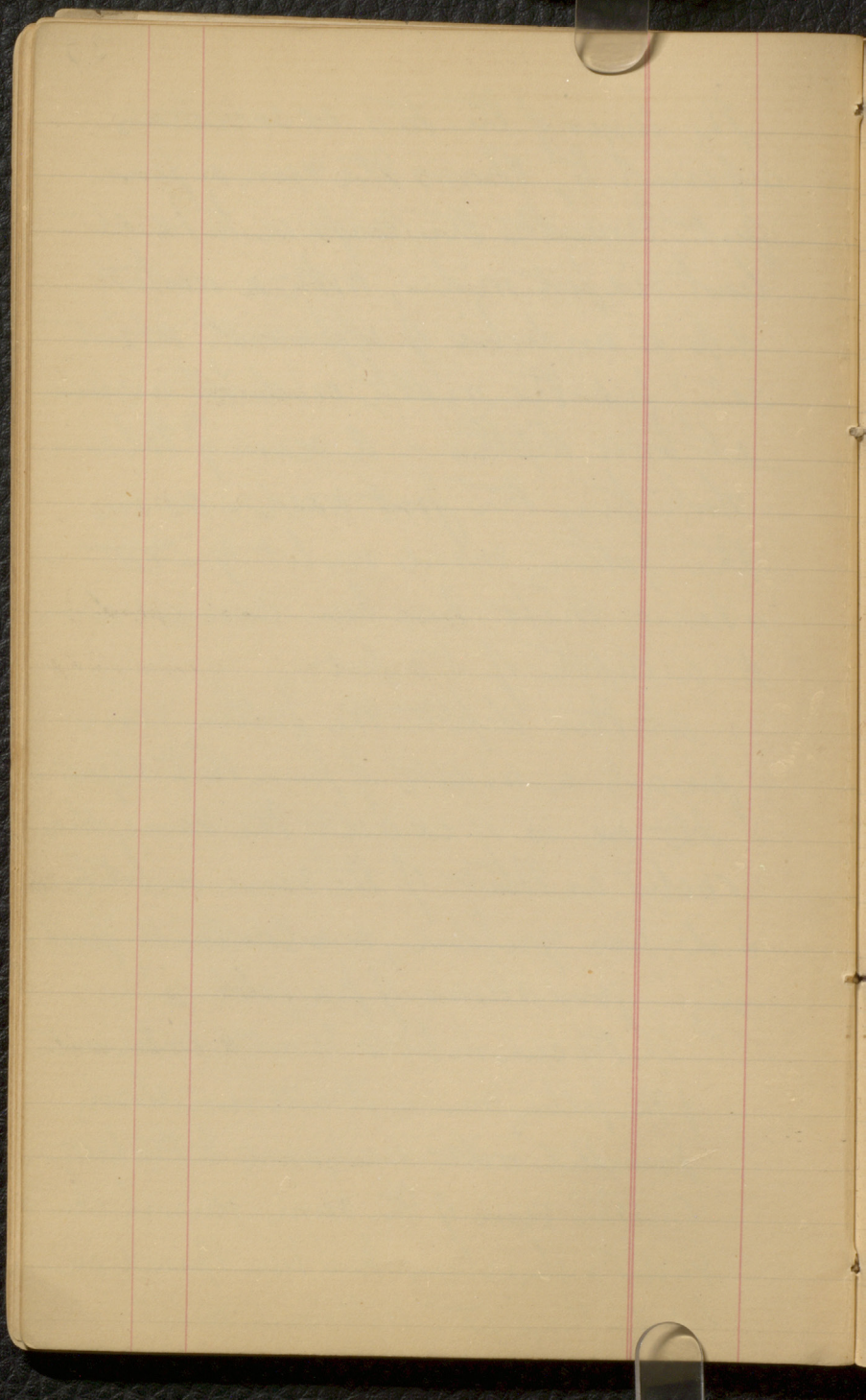
. A well defined vein
carrying a large amount of mispickel
or arsenical pyrites, with frequent shows
of free gold, traverses the lot in a NW-
& SE direction (N 24° - 30° W) - at
present this vein has only been opened
in two places & to a depth of about
six or seven feet only - The decomposing
or disintegrated earthy matter along
the course of the vein, is here examined
by wash panning in four different places,
however, gave few shows of gold.

State

The layers of the two excavations referred to, shows the vein a few feet beneath the surface to be at least six feet wide, with a westerly dip or underlie of apparently about 30° ; but the width evidently increases at lower depths - a seam of talcose slate turns the foot wall - as in the Jattin mine on lot 9 - VIII - where a shaft has been carried down to a depth of 50 feet -

at this depth the Jattin vein presents a width of from 16 to 18 feet - Its ore is of exactly the same character as that of the vein on lot 6 - & it has yielded, & is constantly yielding - good shows of free gold -

If the vein on lot 6 be not a continuation of the Jattin vein - it will run closely parallel with & adjacent to the latter - Another vein of the same general character & direction has been opened on lot 7 - Range 14 - "Williams mine"



Assays

A single trial assay made from a selected piece of the pyrites, free or nearly so from quartz (with no gold visible) gave me per ton of 2000 lbs. the extraordinary yield of 8 oz 3 dwt, = $\frac{1}{2}$ \$168 per ton - (Chapman) ???

Assay 1 - (Portions of powdered ore from both No. 1's)

(Two blast were put in 12 feet apart)

Gold - 6 oz - 10 dwt - 16 grs \$134

Silver 9 " - 8 "

Assay 2 -

Gold - 6 oz - 8 dwt - 8 grs \$132.56

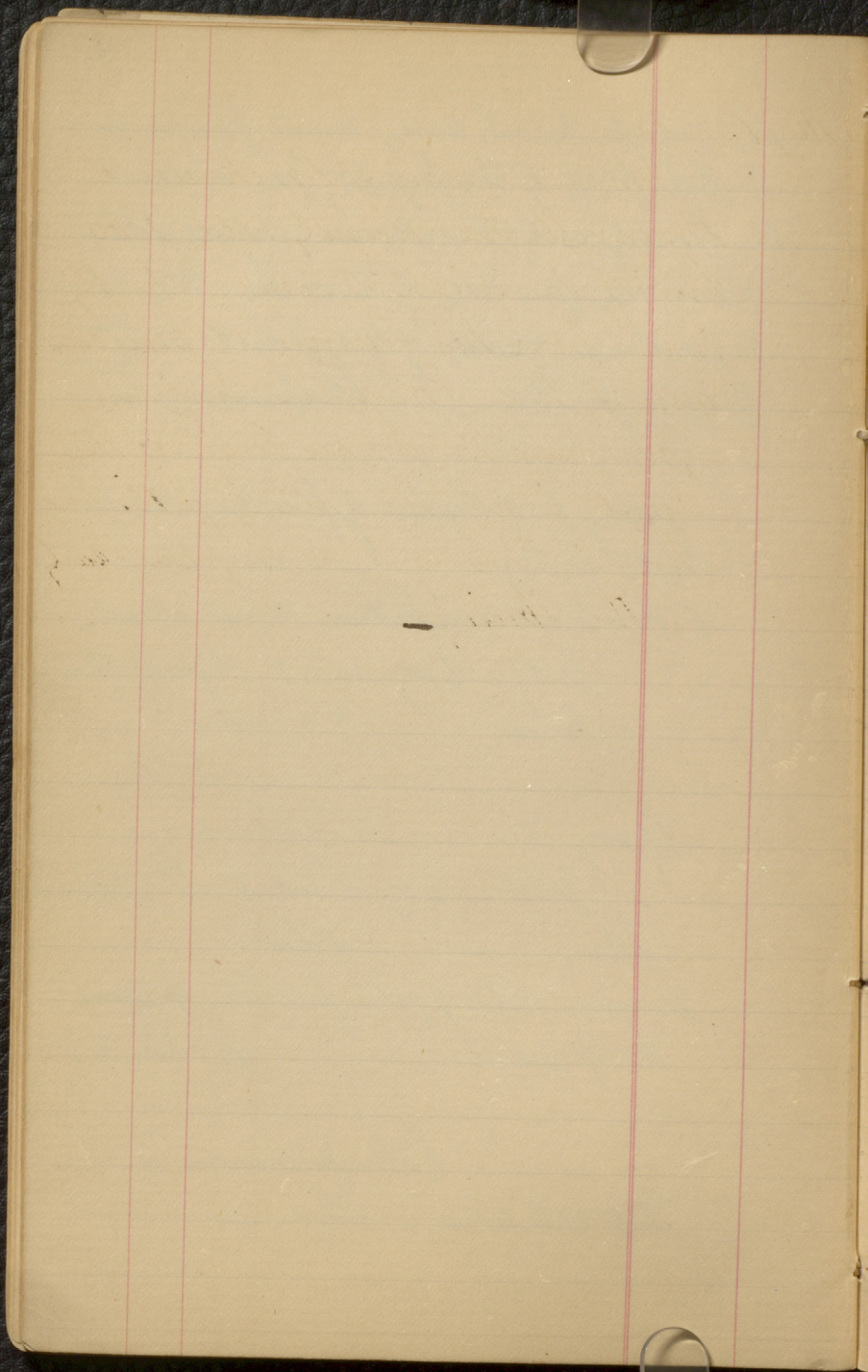
Silver - 7 dwt.

Average yield of gold per ton of 2000

lbs of ore - \$132.28

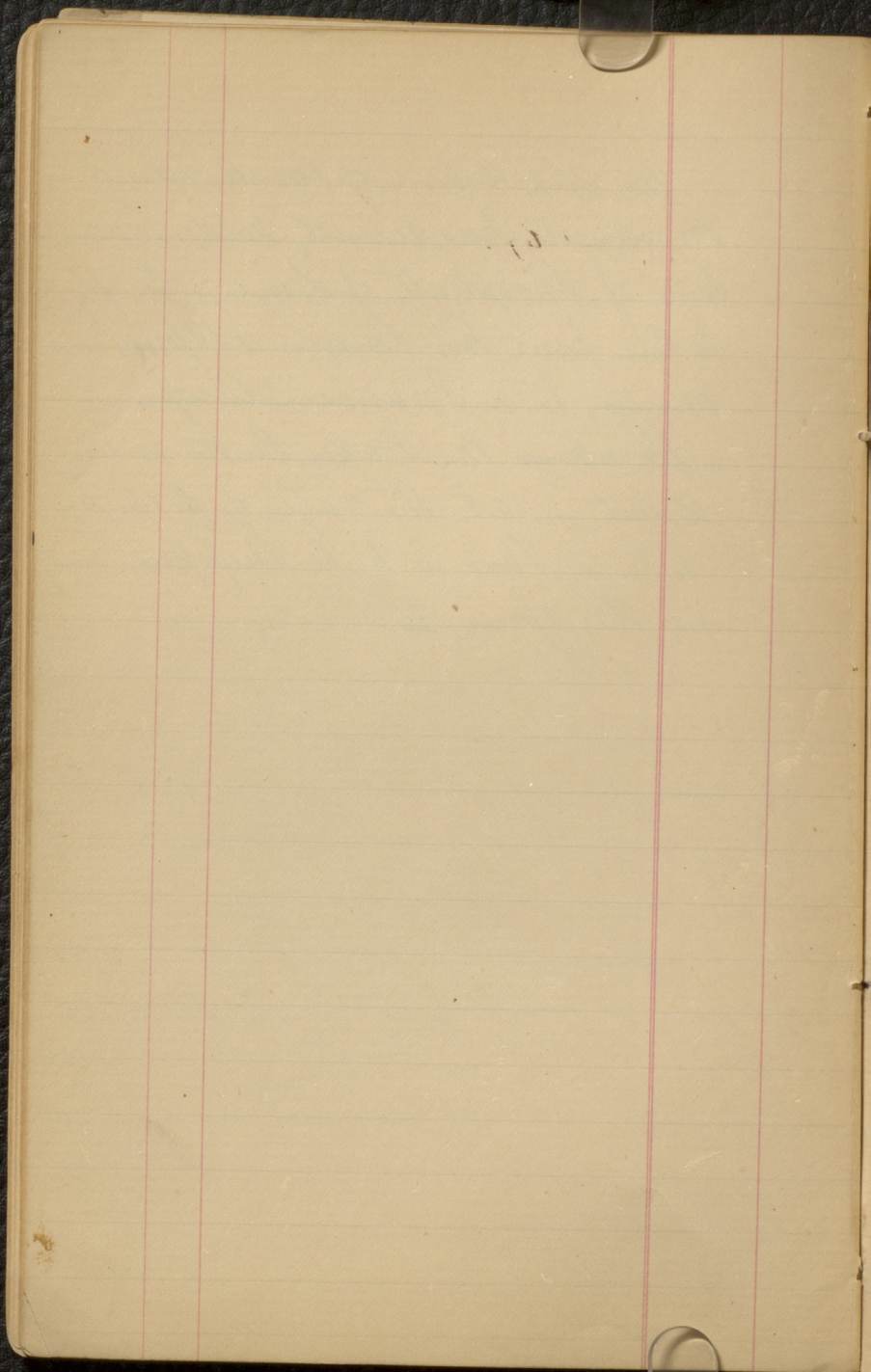
" Chapman "

- Not reliable - Wfr. -

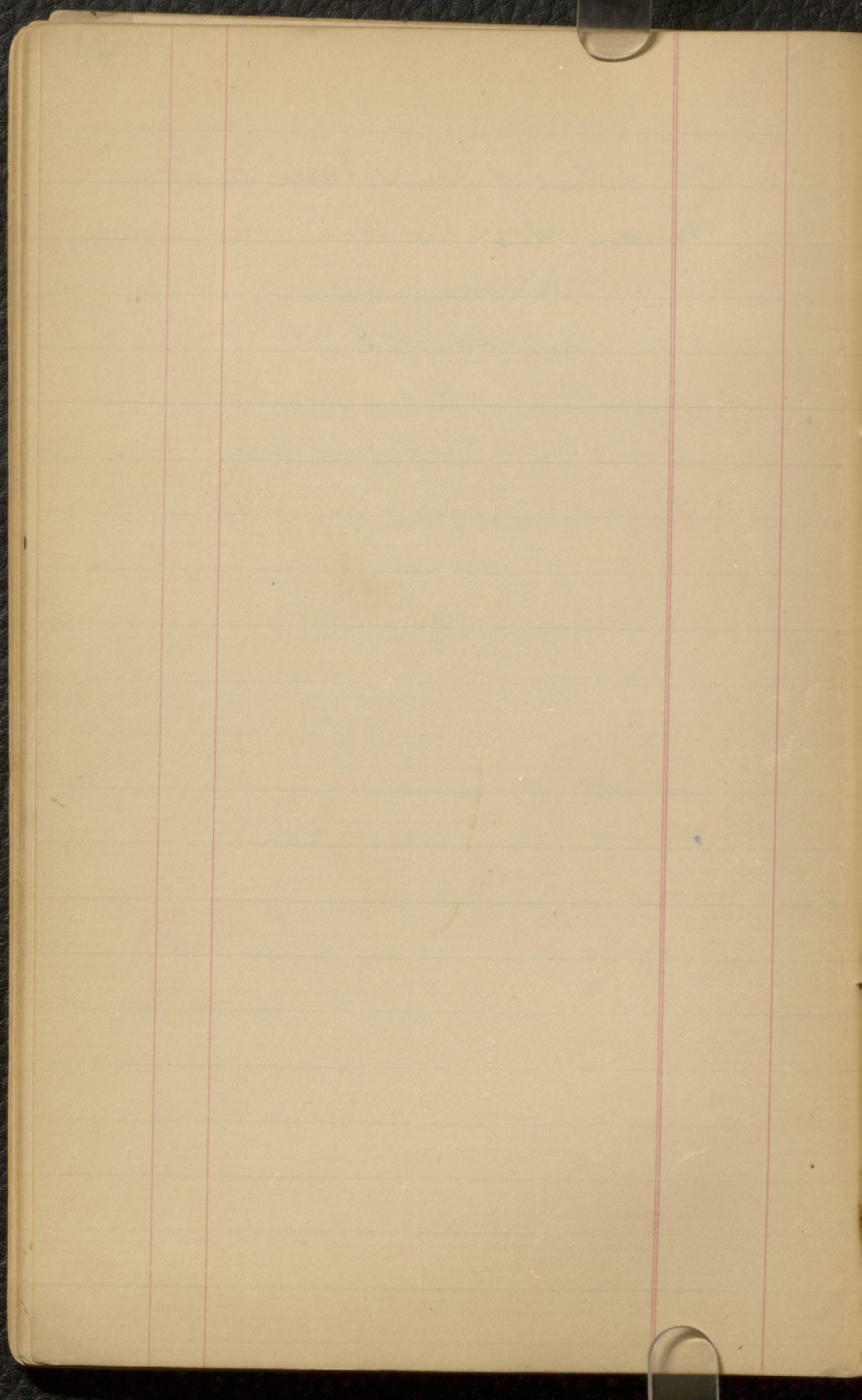


May 1. 1872

Mr Alex Corran of Brockville of
Brockville has recently sold 1000
tons of Phosphate of Lime, chiefly
taken from his Burgess & Opineau
mines, to a Swanson Company,
- for whom Mr Baker Putte is the
Agent - at the rate of \$13. per
ton - This is to be shipped early
in the Spring -



The section of County examined since
the year 1869



Limestone Bands -

The limestone band traced thro Lanark Village is undoubtedly the same as that crossing the Mississippi Riv at Playfairville - it is an exceedingly broad band of limestone - From the bridge over the M. River - the band was followed for a considerable distance along the XI Line road towards S. Sherbrooke -

1873

Hematite -

Lots 11 & 12 - Range XI

Salvoane -

Mr Mahon -

Sequence of Rocks in N. Burgess

- 1 Red non stratiform Granite -
- 2 Banded Pyroxenic Gneiss -
- 3 " " " with Garnets -
- 4 Red + dark ortho gneiss
- 5 Band C.L with mica + plumbago
+ pyroxene -
- 6 Band Garnet gneiss
- 7 Fine red + grey mic gneiss
- 8 C.L with quartz ortho rock +
small gneiss bands -

1872

Oso - Lot 10 Range II -
James Long -
on Sharbot Lake.

Heavy band of a grayish speckled
hornblende gneiss, + reddish feldspathic
gneiss - clearly stratified + running
N 35° E - with dip $> 50^{\circ}$ - 60° - S.E.

Streaks of Epidote + Serpentine in places
mark the stratification.

To the south of this point is the
western bay, as seen on the map
towards the foot of Sharbot Lake
+ here limestone Comission -

Oso - Lot 13 Range ~~IX~~ - I
Garrett's

Large body of white crystalline
limestone running out on to pond

Fall River Belt
Quartz + Serpentine limestone

G. W. Fellows }
Ottawa }
13 old Cavendish St }
Cavendish Square }
London - Eng. }

Sept 20th 1873 -

Mr Schultze's phosphate lots in
Burgess, Bedford or Loughboro & at
Sand Lake are in the market just
now - no work is being done

Do Grants - S $\frac{1}{2}$ 18 Range VII
 McNaughton S $\frac{1}{2}$ 19 " "
 Specimens from both lots
 for analysis & Report -
 Buckingham -

Memo

- 1 mark the positions on the Hall map of the Baldwyn, Haycock & Grant mines (Iron Ore) - + any other Economic Minerals -
- 2 mark the positions of Plumbago deposits on the Buckingham map - as well as those of Phosphate of Lime. (See Chalkey & McNaughton Buckingham)

Graphite or Plumbago

a sample from Joenville, similar to those collected by me in Buckingham was of great purity - By long continued ignition it lost

Buckingham Levant
Molybdenum?

Specimen from Matas alham - resembled plumbago precisely - gave the greenish streak on porcelain - did not blacken the fingers - was easily bent & not elastic -

gave a green streak on paper - no lead mark - certainly not plumbago - nor galena -

Further from the Phosphate
Locations - Oct 18/73 -

Burgess

- Ramp VIII - Burgess - Lots 1, 2 & 3.
nothing further done since last report -
- " " - - - Lot 4. is now being worked
by Arthur Meighen of Perth & E^d.
works with fair success. They will
probably have 300 tons by X mas.
- " " } Lot 5 } not been worked since the
" VII } " 10 } same of my report.
- " " Lots 11 & 12 (Corrins) are still being
worked profitably (see mineral returns
for amounts extracted) -
- " VI Lot 10. is the lot on which Mr
Anthony's shaft is situated. work
was suspended for a short time this
season at Mr Anthony's went to Eng^d.
but he is again on his way out
to recommence operations - The vein
still looks well & they have a pile
of about 600 tons at the shaft -

Bedford Lot 2 Concession XII -
+ Beautiful apatite of high per -
centage -

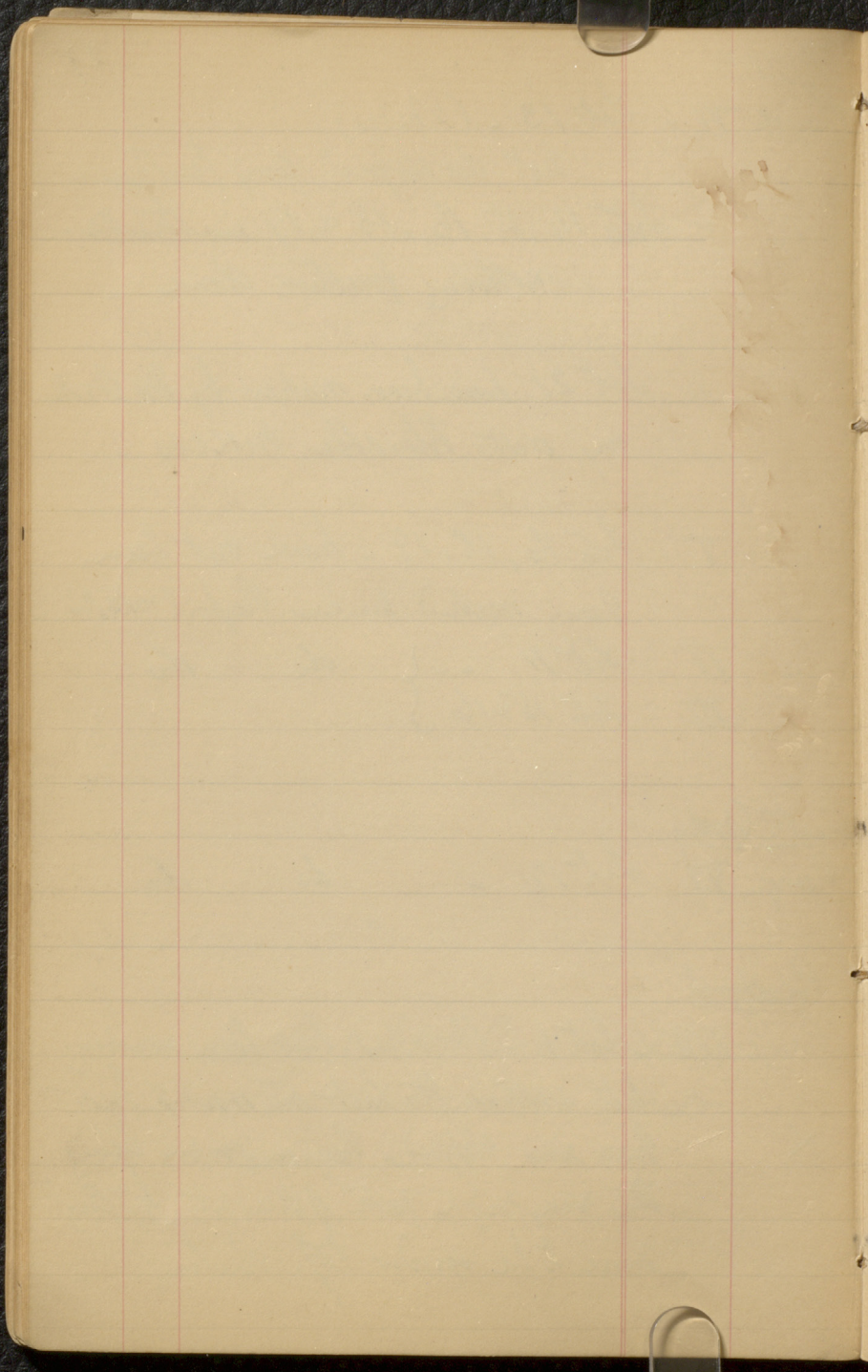
- Range VI - Lot 13 - (2 halves) -
 not developed any further -
- " " Lots 14, 15, 16, 18 & 19 in the same
 nothing further done -
- " " Lot 21 has been worked by Mr Arthur
 my work tolerable success -
- " V - Lots 16, 18, 19 - have not been
 been worked since Report - 1873 -
- " IV Lot 11 - - } do do
- " III Lots 15 & 16 } do do

South Crosby
 Range VI

Lot 12 - do do

Bedford

Range XVII - Lot 1 - (Covans) has been working
 till within the last two weeks, but -
 has now stopped - Reason given being
 the very high rate of per cent to Eng^d -
 none to be under 50% Sterling -

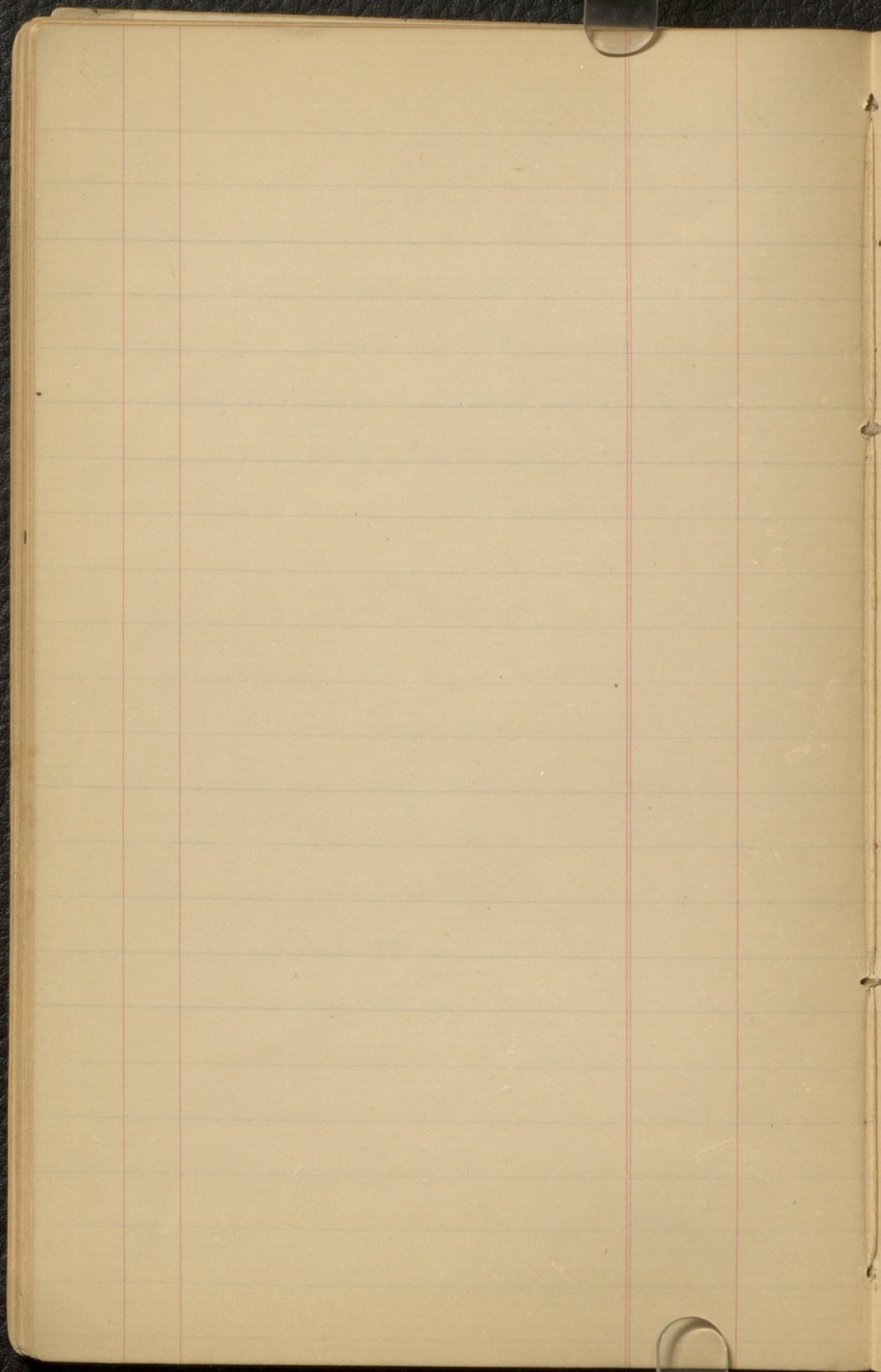


Prospects of Phosphate -

Altogether the phosphate prospects of Burgess are not encouraging & I am afraid all its glory has departed & gone over to the Buck Lake & Loughborough section where they are said to be doing well.

E^d Schutze is to work the Pixley mine this winter. - he says he has one show 82 feet x 4 and one 30 x 12 & other smaller ones - (Lot 12 Range IV Bedford) he has also got an iron mine about 17 miles from Kingston on which he made a show of 20 feet x six in a few days - good hematite.

Mr Baker is still getting out phosphate on lot 11 Range IV of Burgess, but not doing much good at it -



Memo of Plumbago Lots in Buckingham
 owned by Messrs Gouin, Fellows & McNaughton

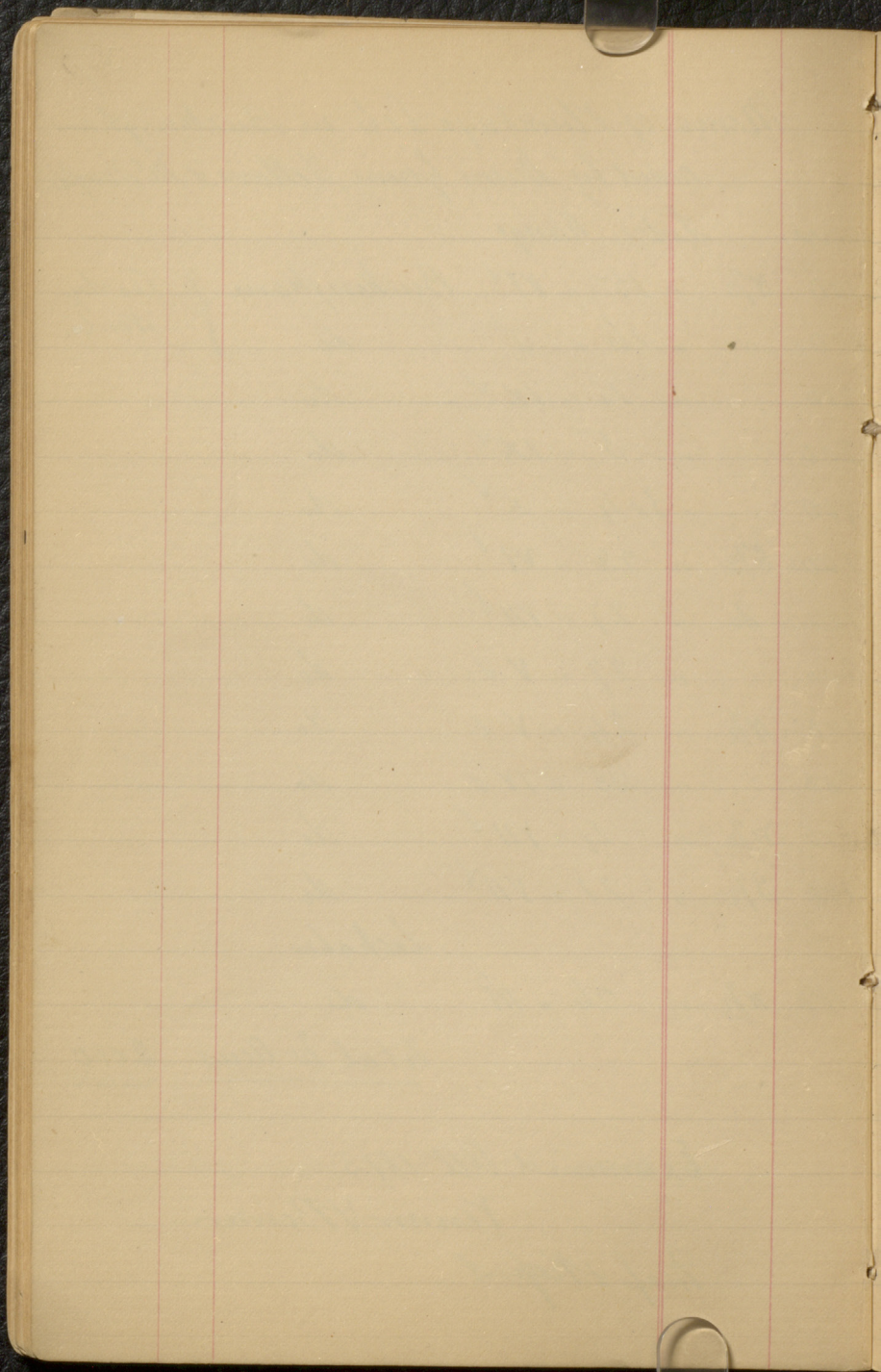
Acres	Lot	Range		
100	N ¹ / ₂	" 15	" VI ¹	Buckingham } Crosby Newlin
100	"	" 16	" " " " " " do	
200	"	" 4	" IX ¹	do
200	"	" 5	" IX ¹	do
400	"	" 3+4	" X ¹	do
100	S ¹ / ₂	" 23	" VI ¹	do
100	do	" 27	" VII ¹	do
200	"	" 27	" V ¹	do
100	N ¹ / ₂	" 24	" V ¹	do
200	"	" 25	" IV ¹	do
100	N ¹ / ₂	" 4	" VII ¹	do
100	S ¹ / ₂	" 21	" VII ¹	do
Lochaber				
100	N ¹ / ₂	" 26	" III	do

Total No Acres 2000

Examined Oct 1873

Yennor & Beaman

Map & Report -



Important facts

Phosphate of Lime, Graphite or plumbago, & veins of Sulphate of Barium are all characteristic of the upper portion of the Lower Laurentian series. These latter veins, have for some time been considered as of comparatively recent origin, & I have recently found that they occur chiefly among the laminations of pyroxenites in which graphite & apatite are found.

1873

Measurements to Phosphate

The eighth ~~lot~~ range of North Burgess, towards the eastern end, & on the northern shore of Otty Lake, has been much worked for apatite, & in it are situated some of the most promising locations - The following are notes & measurements, made on & about the various openings, commencing on lot A, & going westward -

Range Lot

VIII

A

About 30 acres more or less are owned by Pat Flaherty - The only opening worth noting is near the side line, & about $\frac{1}{4}$ mile back from road - It is about 12 feet by 8, & 3 or 4 feet deep. About 5 tons of coarsely granular phosphate were got here - No vein seen - Rock soft micaceous & pyroxenic - The opening is not sunk on to the solid rock. Two smaller openings nearer the road show a little in patches mixed with mica - no dis-

Openings in North Burgess -

Range Lot

tract vein. Phosphate has been found but not worked on other portions of this lot owned by Watts. Did not see openings

III E 1/2 1. The east half of one is owned by John Watts - mineral right by Morris & Jeffrey of Wolverhampton Eng^d.

Opening No 1. is about 10 feet x 7, & about 15 feet deep - A vein of green massive phosphate traverses the bottom in an E + W direction - It varies from 1 - 2 feet wide & is enclosed by walls of a hard micaceous Red Rock in pit is very quartzose, containing also feldspar & pyroxene - About 15 tons have been taken from this pit - Its position is about opposite to the principal opening on A & nearly on the side line -

Opening No 2, is about 1/2 a chain to the N.W. of No 1. It is about 35 feet long, & 6 feet deep, following a vein running N. 15° E. It has

Phos photo

Range Lot not been worked for some time, is overgrown
VIII E:7 & filled in. Country rock is the same as in
the other pit. About 10 tons of green apatite
have been obtained -

Opening No 3, is about $\frac{1}{4}$ of a chain W of
No 2. It is about 40 feet long in a N.E.
direction & from 8 to 11 feet wide, & about
12 feet deep in deepest part. For 15 feet
or so, the vein averaged 3 feet broad. A
vein ran off for 10 feet in a N.W. di-
rection from the N.E. end. Altogether near-
ly 50 tons of green phosphate have been
extracted. The bottom is filled with water
& debris. The Country rock is the same as
in other openings - There is very little mica
in No 2 & No 3. The rock contains a good
deal of pyroxene & reddish feldspar -
There is also some fine micaceous granite

Opening No 4, runs N.E. + S.W. about 1 Ch.
to N.W. of No 3. It is 30 feet long + sunk
in one place to 12 feet deep. The phos-
phate occurs as crystals in pockets of
reddish carbonate of lime - Not worked at
present, about 3 tons were obtained from
this opening -

Opening No 5 - to N.W. of No 4 + parallel
to it. About same length + 10-15 feet
broad - It is about 25 feet deep + $\frac{1}{2}$
full of water - No regular vein - green
phosphate in groups of crystals in
carbonate of lime. Over 60 tons have
been extracted - Not worked now -

Opening No 6, with derrick rigged
over it. About 1 Chalm to West of No 5
+ parallel to it - About 25 feet x 10
broad. The phosphate vein in bottom
is said to average over three feet
wide, for a distance of 12 feet - Pit
to about 35 feet deep. Rock is a hard

Phosphate

Gneiss, containing much pyroxene + some mica - About 80 tons have been extracted. There is 10 feet of water in pit

Opening No 7, is about 1 ch. to S. of the derrick. It is sunk on a pair of prockets - to a depth of 12 feet - about 3 lbs were obtained. not worked now -

Opening No 8 is a trench running N. 70° W about 1 ch in length. Sunk in one place to a depth of 12 feet

Opening No 9 - is about 2 chains N 80° W. of derrick. It is on a group of three prockets - each of which has yielded from 1 - 2 tons of green crystals of phosphate, in light colored Carb. of lime -

Opening No 10 - is about 12 chains N 75° W from derrick. It is about 10 feet by 4' + about 5 feet deep. Seen phosphate in crystals in Carb. of lime - About 1/2 a ton has been obtained -

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Explorations in 1874 -

The season of 1874 was spent, ~~in~~ for the greater part, in the rear part of the County of Lanark, Ont. The Lanark band of limestone, which has been already mentioned in one of my late reports, was first particularly examined - This is a very marked band, being of a beautifully banded character - The bands are alternately white & bluish grey & the rock splits easily, in the direction of these layers.

The general appearance of this band is that of a great Calcareous sheet, spread over the greater parts of Dalhousie & Lanark townships in gentle ~~step~~ undulations, ~~again~~ ^{or in} steep & overturned folds, a section of which might be represented by such a line as the following:



It has interstratified with it bands of a very black finely speckled hornblende rock both massive & schistose, some of which are characterized by garnets. This latter rock often graduates into a glistening mica schist, in which the mica occurs in large silvery white foliated plates, &

This variety is particularly characterized by
 garnets. Throughout this volume of lime-
 stone ^{in general} the bedding or stratification is clearly
 marked, & cannot for a moment be mis-
 taken for the cleavage. There are ^{however} occasional
 bands of a coarsely granular character, &
 in these the planes of bedding appear to have
 been entirely obliterated. Much of this lime-
 stone is magnesian, & weathers out ⁱⁿ brown or
 dark grey colors, & there ^{also} occur ^a zones of nearly
 pure brown or pinkish dolomite. The whole
 mass is more or less characterized by graph-
 ite either in a finely divided state, or as scales
 or plates of some size - & it is to be specially
 noted that this mineral ~~becomes~~ increases
 both in quantity & in the size of the scales as
 we ascend approach the summit of the
 mass or masses of limestone, until among
 its highest beds we have large & apparently
 workable deposits of graphite - where these
 latter exist the limestone is always coarsely
 granular & highly crystalline, while the beds

in which the graphite occurs in a finely disseminated form, and as a general rule are finely granular & evenly stratified -

1874

In my surveys through Lanark Co. this year adopted a plan differing somewhat from that of former years, & one which, gave far more satisfactory results while ~~although~~ ^{it requires} requiring more time, furnished me with far more satisfactory results.

This was to first carefully measure & survey by Chain & Compass all the available roads & paths in ~~one~~ ^{each} township, noting all prominent objects such as houses, bridges, swamps, & intersections of Rivers, & Creeks, ~~but~~ ^{as well as} lot & Con Lines, but without taking note of the outcrops of the rock masses. This work was then plotted on a suitable scale (20 chains to 1 inch), & properly inked in on a number of sheets. I then proceed-
ed with these sheets in hand again went over the same ^{roads} ground & sketched in by means of Colored Crayons ^{each} ~~each~~ ^{evening} respective outcrops of ~~the~~ ^{the} gneiss slate limestone or granite, making also additional offsets from fixed stations ~~on these roads~~ by means of the wheel or by pacing to points of

such as seems opening 12

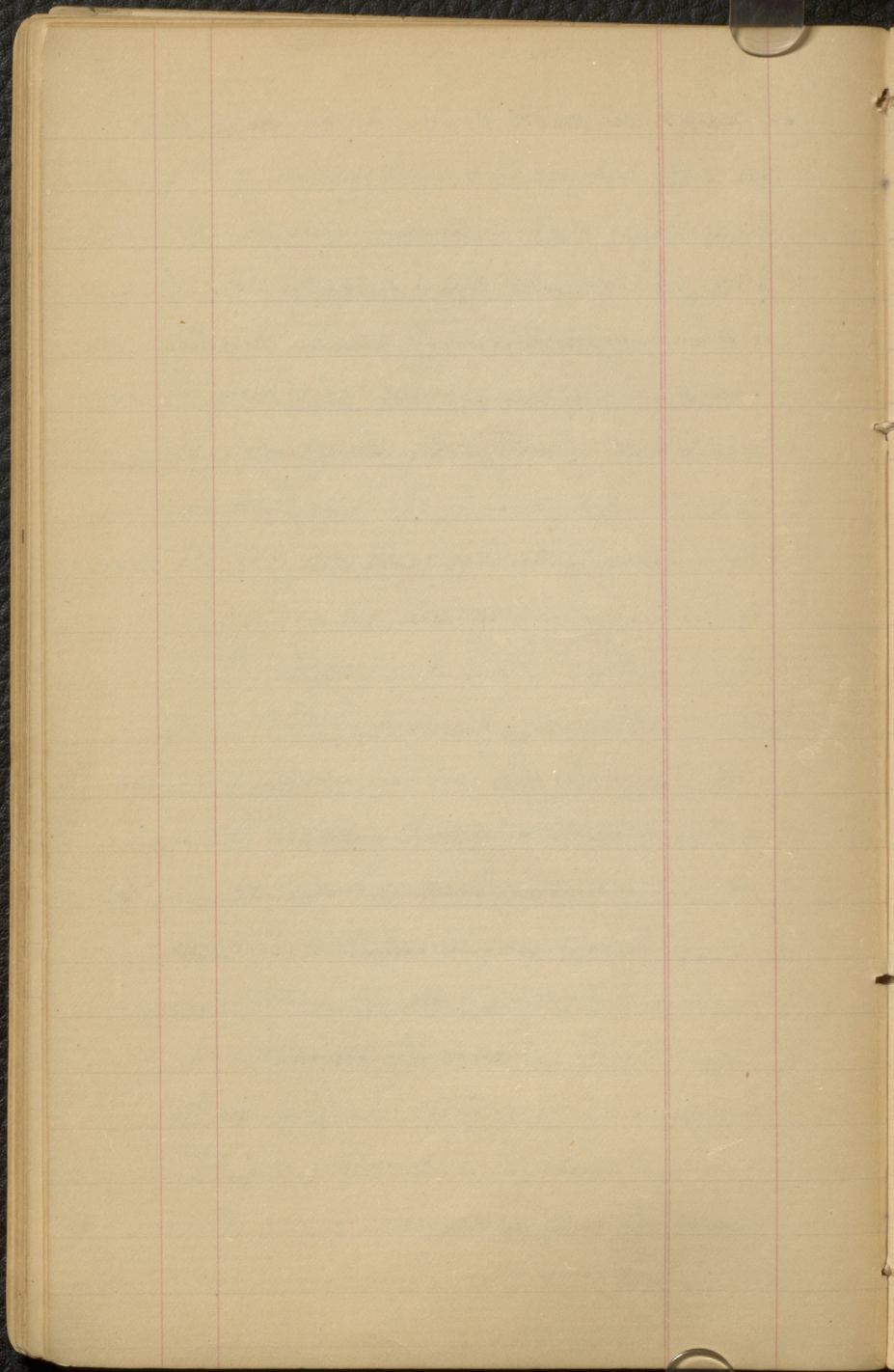
importance, intermediate to these roads.
Thus before commencing my surveys in
a ^{second} ~~the~~ ~~next~~ township, I had a complete plan
of the geological structure of the first, & the
data thus obtained necessarily much
facilitated ~~the~~ subsequent operations.

The measurements thus made in the
seven townships I have already alluded
to viz. St. Sherbrooke, Bathurst, Lanark
Pembury, Levan, Darling & Lakesham
& the portion of Bathurst, St. Sherbrooke
Co. & Palmerston to connect with previous
work, amount in all to close upon
1000 miles, the whole affording a plan
of roads the whole of which has been
letted to their respective townships & re-
duced to the scale of 4 miles to 1 inch
as seen on the maps which I have pre-
pared for the present report. (— On this
map I have also ^{attempted to show} ~~shown~~ the distribution
of the chief rock masses, & indicated the
position of a number of the deposits of
mineral —)

omit-

The Lanark band of limestone & the White Lake & Bolton Creek band are both parts of one & the same band, consequently the first name may ^{be} given to the whole volume, particularly as it is at Lanark village & its vicinity ⁱⁿ that it is most characteristically developed. In describing this great calcareous belt I ~~may~~ ^{may} ~~would~~ ^{would} first consider ~~the~~ 1st its Distribution; 2nd its Characteristics; 3^d its position.

Distribution. In the map which I have prepared to accompany this report the distribution of this band of limestone is clearly marked & defined, ~~to it & to it~~ ^{now} I would refer you in such further particulars as to this I now beg to direct your attention while making some general additional statements respecting it. Commencing in the township of Chs., we find this band of limestone measuring exactly in superficial width ~~of~~ from the under ^{lying} to the overlying series



I may state further respecting this map, that it has been prepared with a special view to the clear elucidation of the geological structure of the whole County of Lanark, & for the purpose will consequent by render unnecessary the usual lengthened verbal descriptions of the varied windings of the respective outcrops of rock. It will I trust it shows at a glance the relative positions of the following:-

- 1st The sandstone & limestone of the Lower Silurian
- 2 The St. Buryan Apatite-bearing rocks
- 3 The inferior bands of limestone
- 4 The iron ore deposits.
- 5 The separating volumes of gneiss.
- 6 The areas of Diablic rocks
- 7 The doubtful rocks, such as, dolomite, fine gloomy slates, chlorite schists, & ^{fine white} Selkirk mica schists & quartz slates.

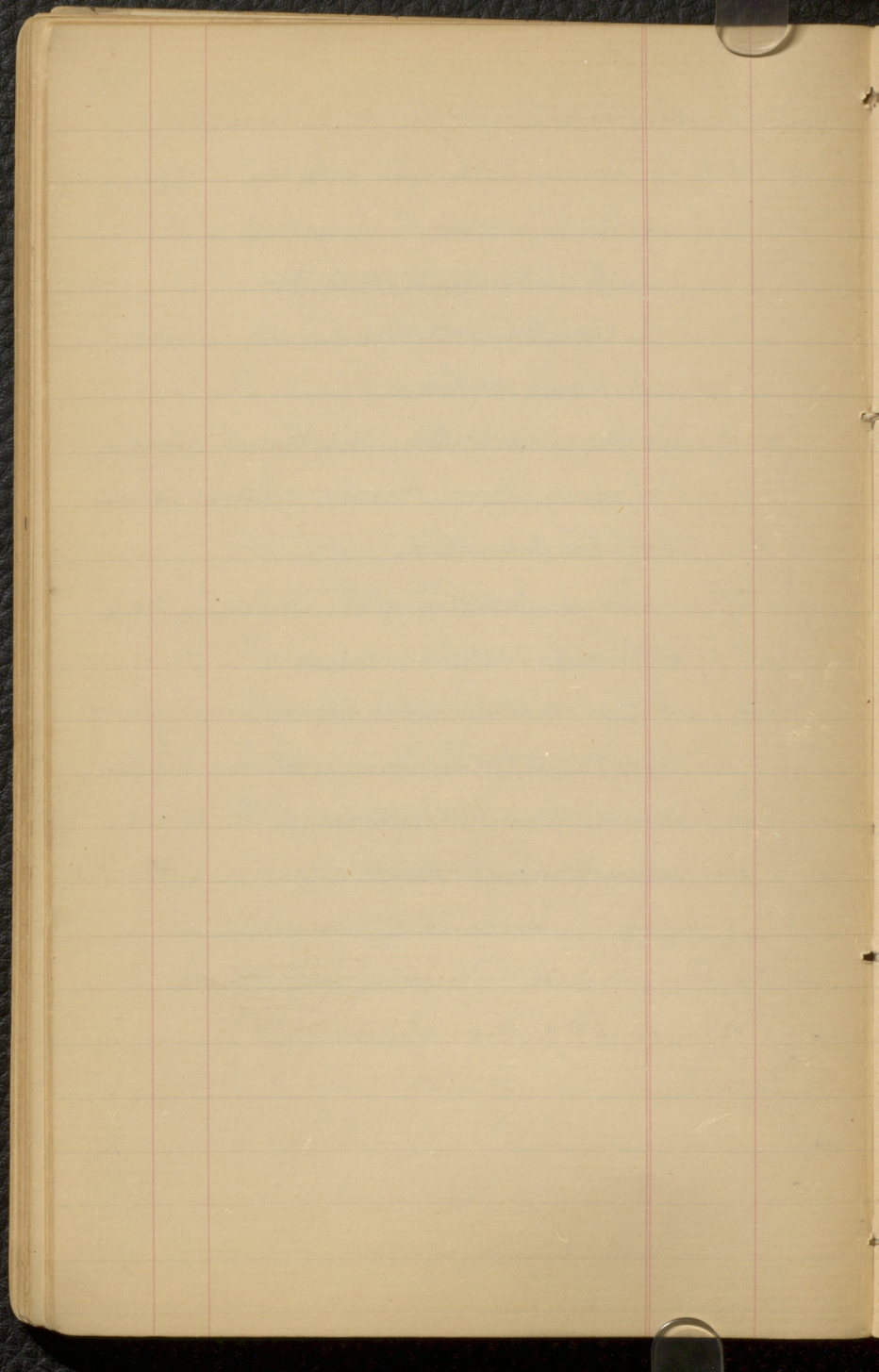
It will be followed by another map in a subsequent report, now being prepared by Mr Robert Barlow draughtsman to the Geological Survey, that will embrace, besides this County, all the country lying between it & Glasgow as far southward as the river St Lawrence.

This last map, would have been ^{ready} published for the present report, had not the incorrectness of surveys on several points of the Counties of Frontenac & Addington, required further time for their re-examination & adjusting.

The results of the foregoing explorations may be given under the following headings, viz:

- 1 Work done in St. Burges - Cessation of work at the Apatite mines - Cause of failure
- 2 The iron ore deposits of Lanark & Frontenac and the Kingston & Pembroke Rail Road -
- [3 Extension of the Upper Charbot Lake Playfairville, & Lanark band of limestone through Dalhousie, Lanark & Ramsey -
- 4 Extension of the South] the area formed by
- 3 The Geological structure of St. Sherbrooke Dalhousie, Lanark, & Ramsey -
 - a. Great Area of Crystalline limestone
 - b. ^{Area of} Dioritic or hornblende rocks - Serpentine limestone.
 - c. Gneiss Areas or Belts.

- 4 Section through Levant.
- a. Area of schists, white mica schist & quartz-
Plutē - with C. Lenseshous -
 - b. Granitic Belt, with mm.
 - c. Ferriferous & Cupiferous dolomites, with
slates & diorites
- 5 Comparative sections, in Levant, Barre,
Katabar, Elgin, Madoc & Marmora ~~of~~
~~of~~ the green slates
- 6 Probable position of the dolomites, slates
& diorites & chlorite schists -
- 7 Section on Addington road through Barre
Katabar & Sheffield - ~~to~~ from the east
granitic Area of Angelsen, to the "Bald
Mountains of Sheffield.



Explorations in 1874 -

49

The greater part of this season was spent in tracing out the distribution of the rocks & determining the general geological structure of the western portion of the County of Lanark. Before proceeding to commence the proper work of the season leaving H. Burgess I spent some time, first in making ^{some} ~~some~~ additional surveys & corrections on this last named township necessary for the small map which accompanies my Report for 1872-73, in investigating & enquiring into the Cause of the cessation of work at the Apatite Mines & in reviewing further examination of the iron ore deposits of South Sherbrooke, North Crosby & Bedford, with special reference to their export of ore via the Kingston & Pembroke R.R. which is now graded as far as the tunnels of Sherbrooke Lake in God a distance from Kingston via direct line of about 38 miles. On the completion of my explorations in Lanark & Edwards the close of the season I further made a section on the Ad-
dington road in Addington County from the Red Bank Area of Angleron to the French Area known as the "Bald Mountains" in

Sheffield et al. see Report.

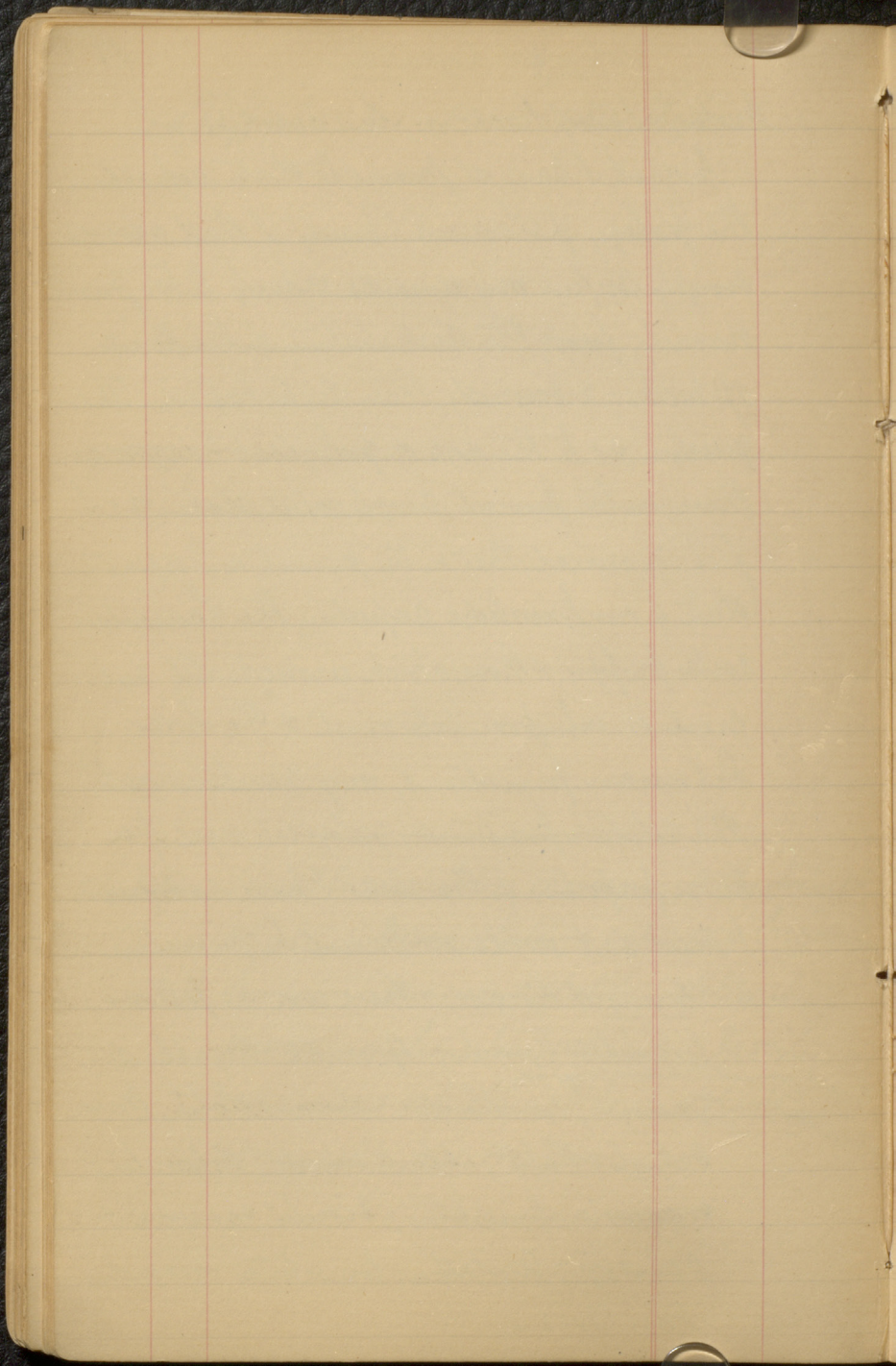
* Note. Hornblende rocks, massive, ochreous & slatey; mica slate, & ochreous; Crystalline micaceous massive & slatey; dolomitic; magnesian micaceous (sparry); Dioritic, massive & ochreous; Chloritic ochreous; magnetic iron ores.

Distribution of Rocks in Lanark County -

In what I have at present to state respecting the Geology of Lanark County, I shall advisedly simply confine my remarks mainly to two points, namely, first, the distribution of the kinds of rocks; & secondly, their distribution. The question as to the age or geological horizon of these, in the present complicated state as I feel convinced, that in the present imperfect state of our knowledge respecting the Laurentian rocks proper, & those which immediately succeed or interpose between it & the lower Silurian formations, any assertions as to the relative position or geological age of a large portion of the rocks I have examined traced out would at present be premature.

I Kinds of Rocks, There are as follows
 Granites & Gneisses; Granite & hornblende
 Gneisses; ^{* note.} hornblende schists & slates; mica
 schists & slates; chlorite schists; dolomites;
 magnesian limestone; Siouxi massive &
 schistose; Crystalline limestone, magnetic
 Iron Ores -

Revised
 opposite Page



Cessation of work at the Apatite Mines.

During 1874, the ^{only} work being done was by Mr Anthony on lot 10 in the VI & on lot 21 in the VII of North Bourgen (since closed)

By Mr A. Conant on lots 11 & 10 (by contract) in the VII.

By some private individuals in Bedford & Loughboro. in the vicinity of Lydenham well are -

Hence an almost entire Cessation of work may be reported -

Causes of Cessation. The cause of this

General

Cessation of work, is not from any "giving out" of this mineral, as, although in a ^{few} number of localities this is the case, there yet remains visible in most of the openings of any extent, a great amount of marketable apatite, & new discoveries are ~~will~~ be made being brought to light in many quarters -

Consequently I say decidedly that the present fallure is not caused by the want of material.

Section at Sharbot Lake

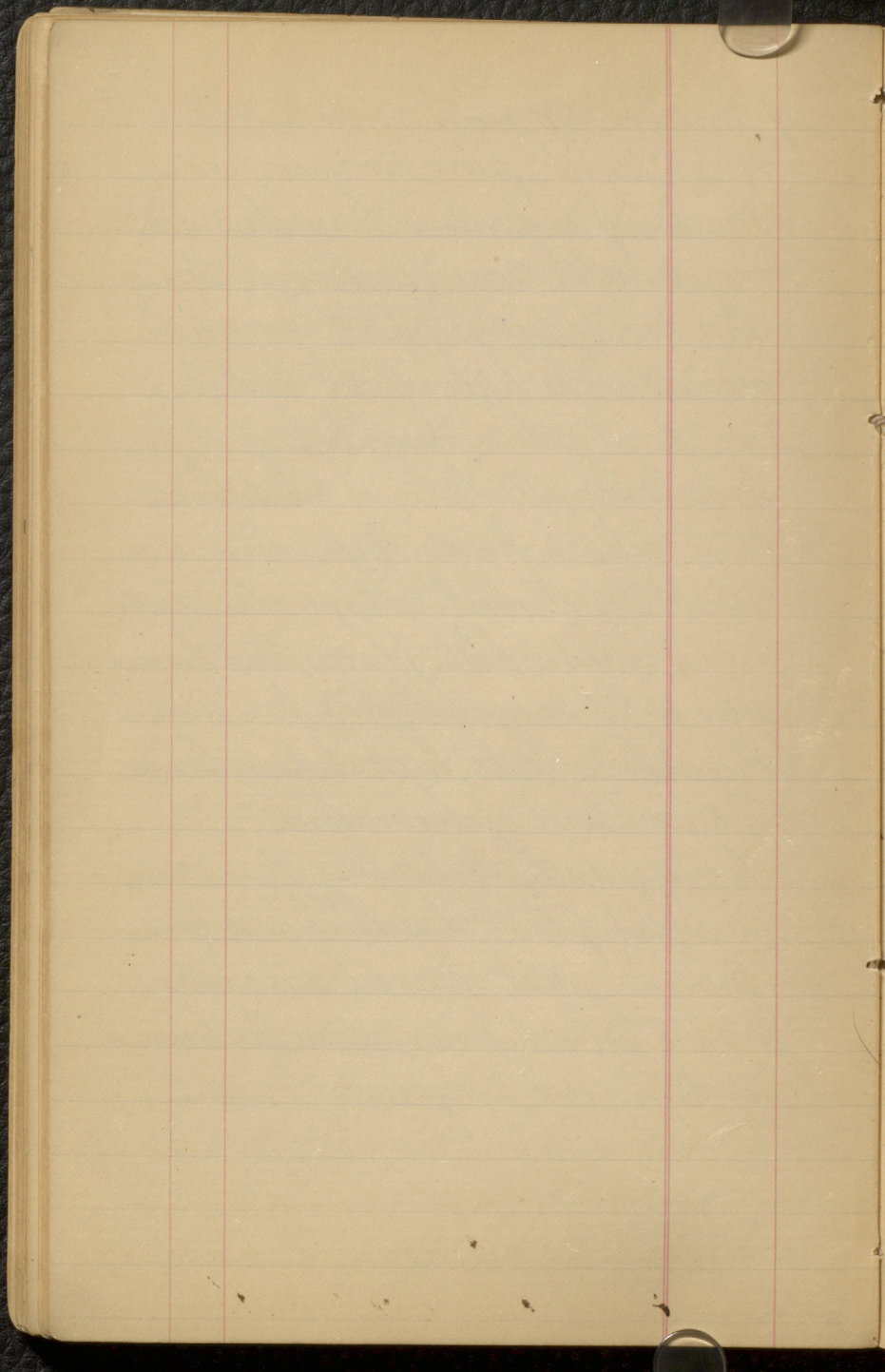
This lake is divided into an eastern & western part by a narrow straight known as the Narrows. The eastern part is further divided or characterized by two parallel limbs of water or deep bays which run in a northwest-southeast direction. The western portion has likewise two indentations or deep bays & an intervening promontory.

Between the Narrows & the most northern transverse arm of water, the shores of the lake & numerous islands are composed of red ortho-clase gneiss & dark grey hornblende rock in portions a diorite. This is the same as that seen in South Sherbrooke a short distance to the north of Mabel's village, & along the southern shore of Bennetts Lake in Bathurst. It is probably on the crown of an anticlinal as it separates the two forms

of limestone shonblende slate rock to the northward, from some important bands of serpentine limestone which occur to the southeastward through the two transverse belts of water.

There can be little doubt but that the crystalline limestone of St Jones Lake & Leggett Lake, is the same as that which holds serpentine to the north of Moberly village & the Fall River - & in both places, this band has the same relative position to the Silver Lake, Rock Lake & Crow Lake band of limestone.

Consequently Serpentine characterizes the lower of the Calcareous ^{belts} in a special manner, & it occurs to some extent in the highest zones, as in the limestones of Burgin & Loughboro.



Plumbago or Graphite.

Plumbago though occurring as disseminated scales, or ~~fine~~ ~~small~~ divided particles in the whole of the crystalline limestones of Lanark & Fife Counties, is only in a comparatively few instances found in masses of sufficient extent to be of economic value, & the whole of these occur in or in proximity to the highest band of limestone yet known.

This scarcity of the mineral in the Counties just named, & its abundance in the crystalline limestones of Buckingham, Templeton, Lochaber & adjacent townships north of the Ottawa river, is a curious point & one that is of great interest. For as I am convinced of the bedded character of the majority of the workable deposits of Plumbago, or in other words, consider these to mark out & characterize certain belts of

limestone & gneiss, these must either
be wanting in Lanark or Frontinae
or must be concealed by some sur-
lying & unconformable formation.

This last conjecture is probably the
correct one - It has already been
~~shown that in Lanark County.~~

For in Burgess & Elmsley, where
Plumbago is first observed to occur
in anything like economic quantity
the Lower Silurian Sandstones come
in & conceal the greater part of
the succeeding ~~lower~~ measures of
the Laurentian between the Rideau
& the St. Lawrence. In South Burgess
& immediately across from the deposit
of Plumbago worked in North Elmsley
there occur numerous traces of the same
mineral, & in rocks whose character
resemble strikingly those of the plum-
bago region of Buckingham.

The Plumbago is everywhere closely associated with the rocks which contain economic deposits of apatite, both in Lunenburg & Fundinac & in the townships already named north of the Ottawa river.

Stone (the Pick Lake band) again makes its appearance & continues along the line to within a short distance of the town line of North Elmley. Turning down the line between Bergen & Elmley, to the north line of the last township named - we again come upon white crystalline limestone with east & west strike & northward dip at a very low angle. This strike must take it up to the Scotch line, where it would connect with the exposures already noted. From the 9th line of Elmley (on the town line of Bergen) it strikes to the eastward along the Doctors Lake & thence along the general course of Gibbs Creek & to the northward of the Eastern shores of Otty Lake. Here it becomes covered by the overlying sandstones. Thus we find that the Brochy & Pick Lake band runs through the whole of the greater part of the 10th Concession of Bergen & into the 9th of N. Elmley. A little further down the town line of Bergen & towards the 8th line, we

Come upon the Black or Salmon Lake
 & Murclay's Lake band of limestone (which is
 the same band as that just traced, but on the
 opposite side of an anticlinal) - also striking
 in an east & west direction but with south
 & west dip, & along the south side of Jobs
 Creek - Thus there are two outcrops of limestone
 almost, if they do not completely, united, on their
 course through this portion of Mt. Elmly -
 We may therefore, can speak confidently as
 respecting the anticlinal form existing between
 Peter & Black or Salmon Lakes - — —

The Rocks overlying the Peter Lake band

The point at which Grants Creek crosses the Scotch
 Line at the Fall Gate, may be said to denote
 the line of separation between the limestone
 on the one hand & the overlying green rocks on the
 other - Immediately we step across this creek we
 come upon a great volume of coarse greyish
 porphyritic gneiss, which dips slightly across
 the town line between Bergen & Bathurst
 & entering the 1st Concession of this last named

Pike Lake Band of Limestone,
in North Burgess. Ont.

The Pike Lake band of limestone has now been beyond a doubt proved to be an extension of that from Crosby Lake in North Crosby, the general trend of both lakes, illustrating precisely the curve taken by the band through both of these townships. The true incline of this band is to the north eastward, northward & north westward, corresponding ^{in this part} to the easterly middle, & easterly portion of its distribution. Along the north shore of Pike Lake the dip is very steep or vertical, but & even in some instances slightly overturned. The course taken by this band, from its position on Grants Creek, at the outlet of the lake, north eastward has up to a recent date been doubtful, but at last we have obtained a sufficient clue to enable us to trace it ~~through~~ from this position through the remainder of North Bergen township into N. Cloudy.

~~This~~ On leaving the northeastern extremity it
 follows the water of Grants Creek through the
 # x Concession of Burgen, but runs through
 low ground along the valley of this stream & is
 but little seen. Towards the front of lot 12 in the
 tenth Concession, however, traces of limestone may
 be observed along the road & to the rear of the tavern
 which stands close to the line between lots 12 & 13.
 Here, the exposures of limestone are underlain by
 rust, weathering slate bands, similar to those
 underlying the limestone along the northwestern
 shore of Pike Lake; consequently the main portion
 of the band must run somewhere between this
 tavern & Grants Creek. Its further course would
 take it to a position in the vicinity of the Fall
 Gate on the Scotch Line, but here there is a
 heavy sandy drift, & no rock is seen. From
 the Fall Gate no rock but sandstone is seen
 all the way to the Glen Jay road, on the Scotch
 Line, or to the side line between lots 20 & 21 in
 Bathurst. Beyond this point, a few chains,
 the sandstone terminates, & crystalline limestone -

townships occur along between Grants Creek
& The Lay River, its dip lessening much as
it nears the town of Perth in the corner of
Drummond - This rock is especially char-
acterized by being intersected by a great mul-
titude of white granite veins, or dikes from
a perfect net work upon its weathered surface -
This rock is passed over all the way along the
Scotch line from Grants Creek to a point where
another creek crosses the line, opposite the

lot in the first concession of Bathurst, & as the
dip along this distance is invariably steep
some estimate of its volume may be arrived
at - This volume of rock must course along
at a short distance to the northward of Poke
Lake & to the northward of Grosby Lake in North
Burgess; & probably comes in between the
Allans in mine & the shore of Grosby Lake -
It is apparently overlaid or graduated into
towards its summit a red orthoclase gneiss
in which the feldspar ~~is~~ prevails largely over the
pyroxene. (see page 62)

57
wyate

The "Robt Perry" in Canada or a Canoe journey
from the shores of Lake Ontario to the Madamaska
river - by Henry J. Vennart F.S.S.

- 1 From Kingston up the Cataragui river, to Mad
Lake + Newboro -
- 2 Newboro to Westport on Mud Lake
- 3 Sand Lake, Westport Mountains, Wolf Lake or
upper Rideau Lake - on Redford -
- 4 Owen Bay, Bob's Lake, Cross Lake - Trip to Eagle
Lake in Henchingsbrooke -
- 5 Cross Lake to Phorbard Lake in Oso -
- 6 Phorbard to White Lake -
- 7 White Lake to Mink, Perry + Cross Lakes
- 8 The Salmon River - Tamworth -
- 9 Cross Lake to Full Lake in Barrie
- 10 Full Lake to Long Lake, Mississippi River -
- 11 Marble Lake -
- 12 The Great Magnian Clift - on M. Lake -
- 13 Big Bay to Boule Lake -
- 14 Bay Fortune Lake, Big + Little Schooner Lakes -
- 15 Mud Lake on the Madamaska -
- 16 High Falls of the Madamaska -

17 Calabogri Lake

As already mentioned the ore at the Horse opening is very much mixed up with rock, & the whole character of the deposit is an irregular one - ~~Its outline~~ It is further difficult to ^{draw} ~~make out~~ ^{out} any definite line that might be said to represent the shape of the mass of ~~iron~~ ore. ~~It was only after making out~~ ^{ore} ~~but one fact~~ The greatest length however, of this, is on the strike of the bed, viz nearly northeast & southwest, & at one place I determined ~~that~~ the breadth to be at ~~from~~ fifteen to twenty paces, though this last distance however, there are several horses of rock. ~~Further than this~~ Beyond these facts, I can state little respecting this deposit. That there is visible a great quantity of ore is undoubted; & this ^{is} ~~is~~ sufficient can be mined by open cuttings ~~at~~ in the cheapest manner, namely by open cuttings, there seems to me no reason why the deposit should not, for some time be profitably worked. The position of this & the adjoining deposits of iron ore, is

almost

& Crosby Lake & P.M. Lk.

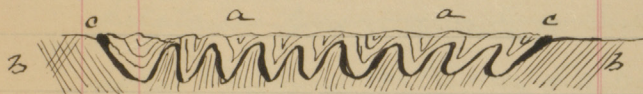
immediately beneath the Wolf Lake band of limestone, consequently which is the southeastern outcrop of the Green Bay, Bobs Lake, Jay Lewis, & Meyer Lake band of limestone, on the opposite side of ^{the} a synclinal already mentioned on page .

Consequently these iron ores are in the same ~~position~~ ^{position}, but on stratigraphical position as those represented by the Meyer Lake & Silver Lake deposits. This fact, of the occurrence of outcrops of iron ore ~~on both~~ in the same stratigraphical position on both sides of a synclinal form, is in my ~~own~~ ^{own} opinion sufficient proof of the continuity of these ore deposits, ~~both~~ not only in length but also in ^{thickness} depth. The occurrence of strongly iron rust colored masses in many parts of the Bedford basin or synclinal, between Bobs Lake & Patspoon Lake, convince me that this ferriferous horizon is brought or almost brought to the surface by undulations in several places between the two divergent outcrops of ore.

Further it seems to me highly ~~improbable~~ ^{improbable} that such ~~deposits~~ ^{masses} of iron ore strata have only been

~~deposited along the limited~~

have only been deposited to a limited extent along the ~~area of~~ opposite outcrops of the same horizon of rock. The following section across the ^{points} ~~horizon~~ of Bedford will explain this more vividly -



a. a. Undulating white Crystalline Limestone

b. b. Underlying gneiss & diorite

c. c. Outcrops of magnetic iron ore.

Iron Zone

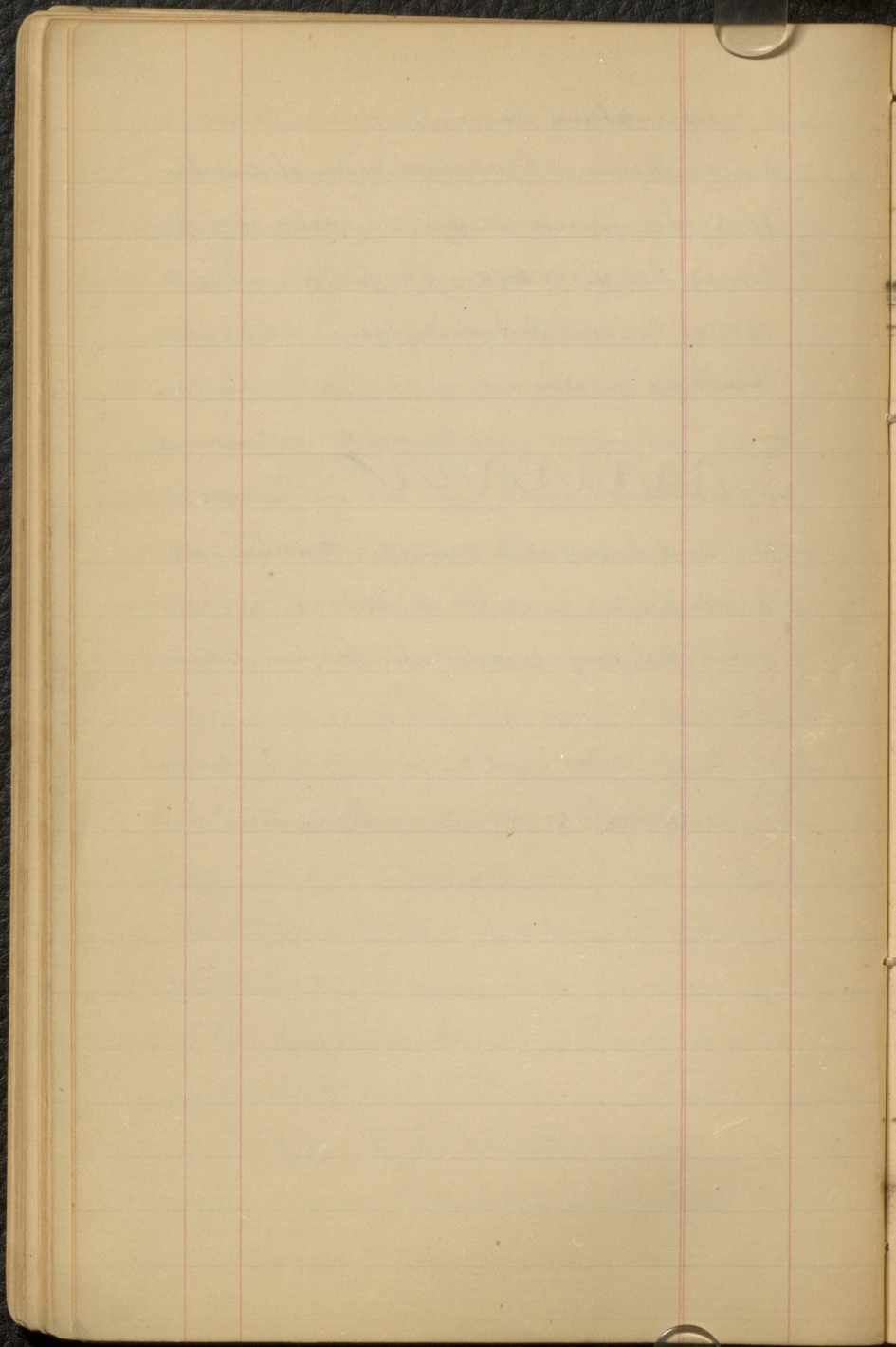
Green Bay

or

undulating White Crystalline Limestone

Horst Iron deposit



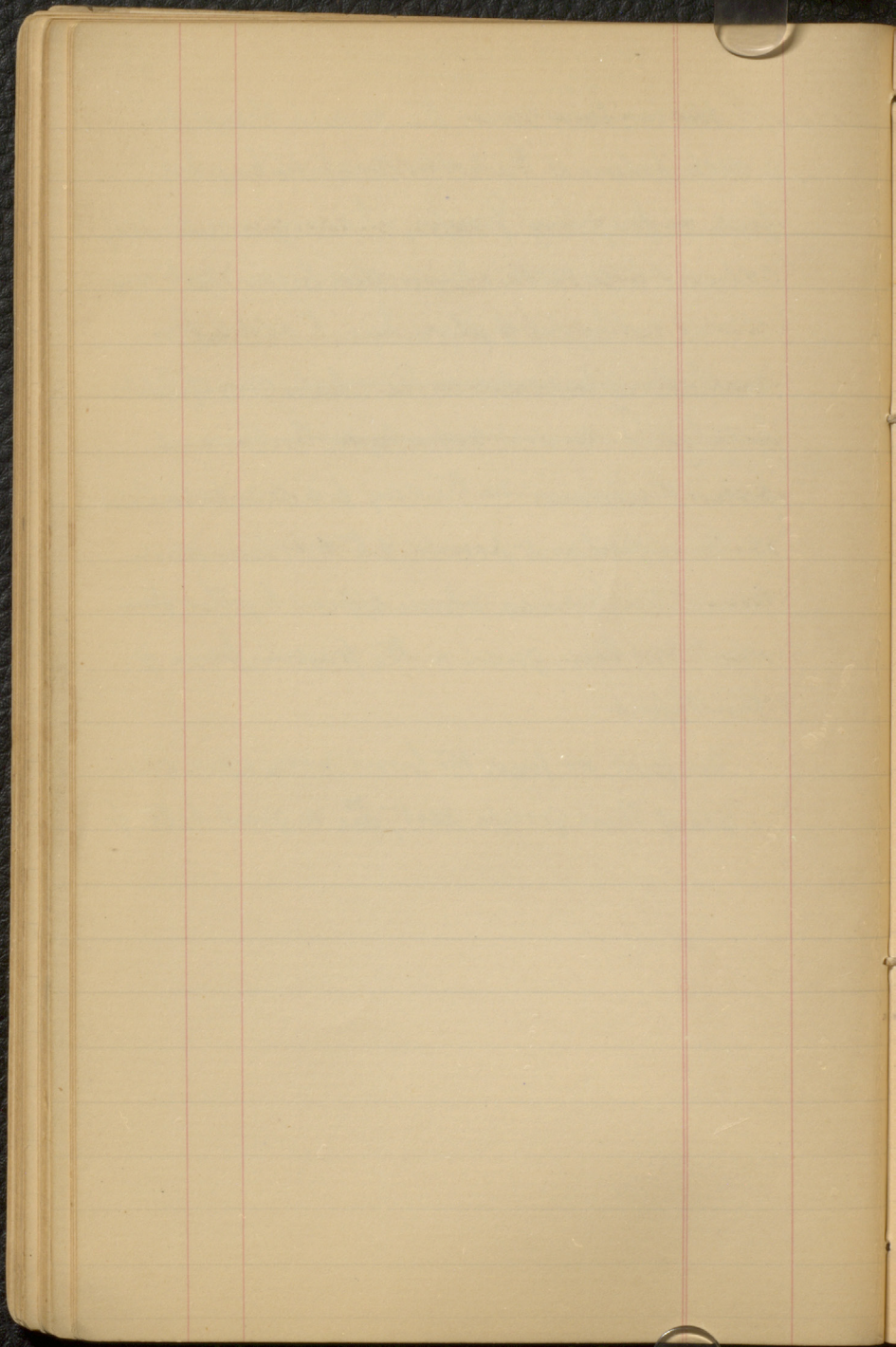


General Conclusions

60-

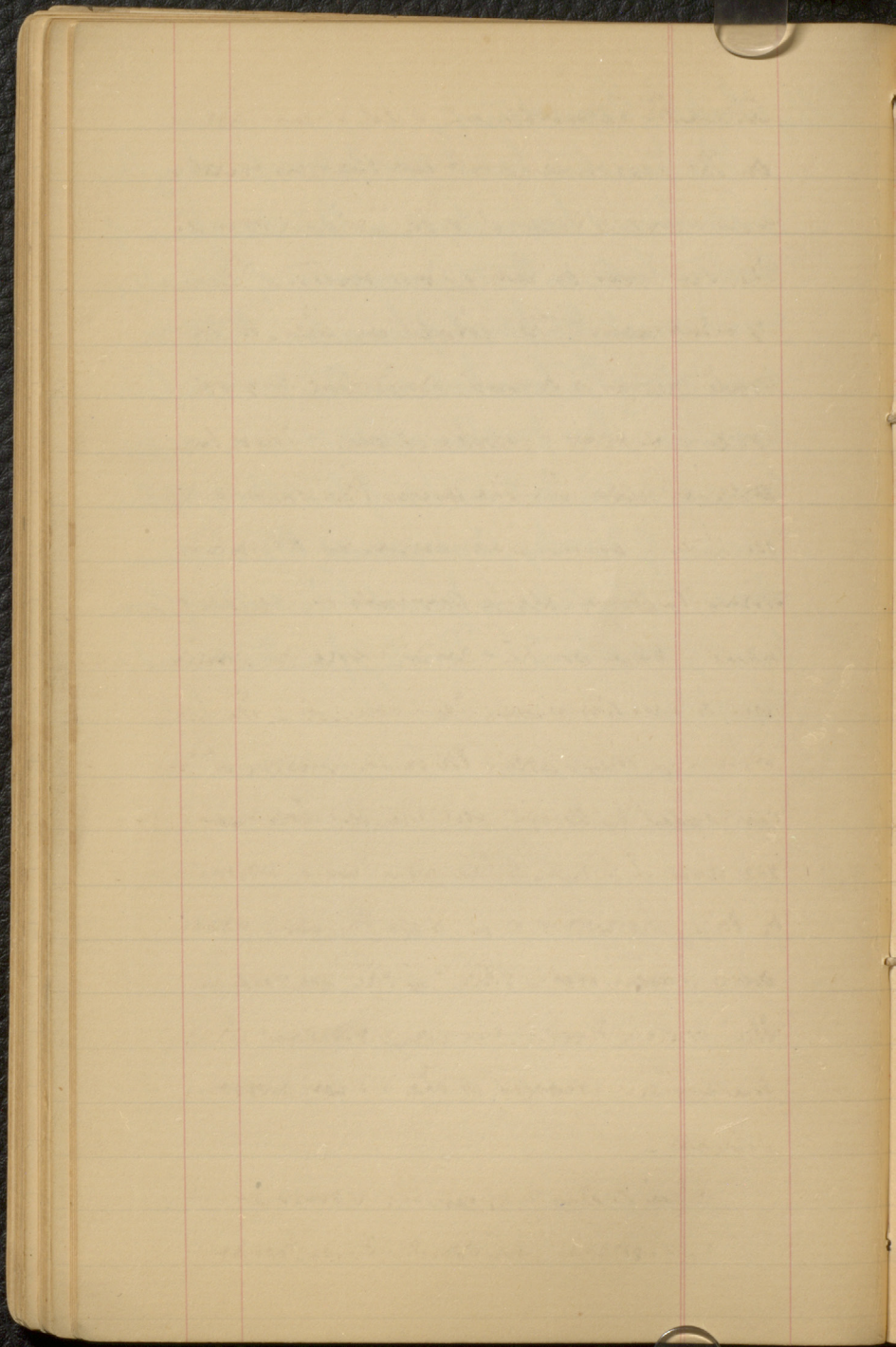
Having ~~thus~~^{now} given the general character & distribution of the rocks constituting the five or foregoing groups, & having incidentally alluded to a sixth & ~~high~~^{still higher} rock series it will not be out of place here to add a few ~~concluding remarks on the whole way of reser-~~
~~vation~~^{concluding} ~~general remarks, or conclusions~~
~~statements~~^{statements} in the way of a recapitulation of the important points, & to mention some general conclusions which appear to follow from what has been given in the foregoing pages of this Report.

And first, we find the lowest rocks upon which all of these groups rest, ^{to} are a great belt of



Ottawa Lake - Limestones -

The limestone band which occurs along the Scotch Line & turns down in the direction of Doctors Lake in the IX Concession of Elmdale, must meet the band of limestone that is seen along the line between the VIII & IX Concessions - This junction would occur in all probability in the last two lots of the 8th of the Concessions of Elmdale, consequently the western shore of Ottawa Lake is found to be entirely composed of limestone (in Elmdale) from the one end to the other -



Above this pyroxene & red green again
 on the Scotch Line between Bergen & Bathurst
 & on in the vicinity of the volcano formed by
 the Jay mine on lots 10 & 11, in the 1st Concession
 of Bathurst, the strata are seen to be alter-
 nate wedges of a dark orthoclase of pyroxene
 green, & beds of pink Calcite. These rocks
 precisely resemble the rocks through lots ~~10, 11~~ 13
 14, 15 & 16, in the 6th Concession of North Bergen
 where the pink Calcite abounds in crystals of ap-
 atite. But on the Scotch Line no apatite has
 yet to my knowledge been found. The further
 course of these rocks through Bathurst is
 concealed by drift, but they undoubtedly follow
 the general course of the Jay mine, immediately
 to the northward of it; & as the dip must
 also lessen with that of the underlying rocks
 they should have a very large spread through
 the eastern quarter of the 11th concession of Ba-
 thurst.

Red Green between the Fournier & Allan
Iron mines - in South Sherbrooke.

The great body of red gneiss between the
Fournier & Allan Iron mines in S. Sherbrooke
is undoubtedly composed of the coming together
of the two volumes of red gneiss, which im-
mediately underlie the gneiss & pink calcu-
lime zone, these latter have thinned or been entirely
pinched out. Thus the volume of gneiss
immediately underlying the Farren & mud
Lake band of limestone in the 2nd concen-
tion of S. Sherbrooke, must represent
that, crossing the Scotch Line immediately
to the westward of Grants Creek Bridge,
this gneiss in both of these positions over-
lying the main band of crystalline limestone.
We thus get a great clue to the general
geological structure & sequence of the rock
masses in ~~through~~ this particular ^{part} portion
of the County, which further ~~must~~ ^{will} throw
a great deal of light upon other ~~part~~ ^{of} re-
~~gions~~ ^{gions} - A very singular feature
is the non-occurrence of apatite, to any
extent, in the Bathurst trough, although

The same rocks are repeated, which in N. Benson are large Asahli-bearing -

Indications of same horizon in Bathurst

on the Car line between 11-111 of Bathurst & just at the point where the road from Glen Lary runs up between lots 20 & 21, there is a small exposure of crystalline limestone, immediately followed on the 111 Concession by very rusty green rocks. This must represent one of the iron horizons of S. Sherbrooke, & all the surrounding conditions make it appear probable that the particular horizon represented, is that in which the Allan Mine is located in North Crosby.

Plumbago. Notwithstanding the fact that all
of the Crystalline limestones of Frontenac
& Lanark Counties, are more or less graph-
itic, workable deposits of plumbago have only
been met with in a very few instances & the
whole of them, at or towards the summit of
the whole rock series, such are the deposits
of North Elmsley & North & in close association
with the Apatite-bearing rocks. In such deposits
In Frontenac County for example, plumbago
first occurs in anything like quantity in the
limestone of portions of Bedford & Longfords
townships & in the highest band of limestone
yet met with. In Lanark County, it again
occurs, in an extension of the same lime-
stone in North & South Bergen & North
Elmsley, where it has been reported in
the Report of Rogers)*
to the ^{North} ~~westward~~ ^{of Bedford, Bergen & Elmsley} ~~from these positions~~, I am not aware
that it has yet been found in anything more
than mere traces. During last season's
investigations I examined a, reported

* see also page 69 -

Plumbago location, on the 9th lot of the 5th
 Concession of Lanark, on the property of the
 Tennant. Here I found some traces of the
 mineral, scattered around a slight opening
 which had been made in a band of serpentine
 limestone. Its occurrence in connection with
 such a limestone was interesting, but the deposit
 was of no economic importance. In other
 portions of Lanark & Ramsay townships, simi-
 lar irregular deposits of plumbago occur,
 none of which are worth considering -
 assuming then that the Loughborough, Bedford
 Burgess & Elmsley Crystalline Limestones & as-
 sociated gneisses, are the true plumbago-
 bearing rocks, it becomes ^{more} interesting to note the
~~further distribution of these~~ ~~this, however, was~~
~~found out of the question in these~~ ~~Franklin &~~
~~Lanark Counties~~ - it becomes an interesting ^{point} ~~fact~~
 to note where they again occur, & whether or not
 they continue to be characterized by the mineral.
~~In Loughboro & Burgess, the general strike or~~
~~bearing of these rocks is to the North Eastward, &~~
~~in which direction they~~ ~~course~~ ~~also~~ ~~pass~~ ~~into~~

North Elmoly. Their distribution in
Fundenia & Lanark, is limited both to the
south westward in Portland & to the north-
eastward in Elmoly townships, by the denudation
of the Lower Silurian, which laps over & conceal
them; the lineal extent of the area along which
they are distributed being only miles -
From following, on what ^{may be} considered to
be the general bearing of these rocks, we pass
pass over from North Elmoly, ~~we are led~~
to a position across the Ottawa river in
the vicinity of Hull, where for the first time
after leaving North Elmoly, the Crystalline
rocks we pass over a great area of
Lower Silurian sandstones & limestones all
the way to a position on the Ottawa River
opposite Hull. Upon crossing the Ottawa
River, & passing ~~reaching~~ the townships of
we again come upon the lower Crystalline
rocks, which we find extensively developed
through Hull Templeton, Buckingham & con-
tiguous townships to the north eastward.

Amongst the first exposures here met with, are
~~the~~ those associated with the magnetic iron ore
 deposits of the Ralswiek Hill, where we at once
 find Plumbago not only in the double bedded green
 & Crystalline limestones, but also in the iron ore
 itself. Further on in Templin, sandy crystalline
 limestones ^{are met with} abundant in Plumbago, both in the
 form of thick disseminated scales, & in stratified
 layers & in some extensive masses. In the ad-
 joining townships of Buckingham, Plumbago
 is met with in every direction, on the continuation
 of the Templin limestones, so much so indeed
 as to permit have originated for this township
 the appellation of the "Buckingham Plumbago
 Region". These most of these deposits I have
 already referred to (Report of Progress 187)
 but I again mention them here in connection
 with what I have ^{now} yet to state ^{to} respect ^{ing} their strati-
 graphical position. The occurrence of this mineral
^{now} in this position abundantly, in a position cor-
 responding to an extension of the line of strike
 of the Loughboro, Bergen & Clinton deposits, rocks
 is very interesting, would in itself be an interesting

but it becomes much more so, when one comes
to examine into & investigate the general geology-
ical structure. * Though but little ^{stratigraphical} work
has yet been done in Buckingham & Temple-
ton, sufficient facts have been collected to prove
that the Crystalline limestone in which the
claystone of Plumbaro occur, are arranged in
trough or synclinal forms. Beneath these
trough forms, & often separating them in
Buckingham, there occur great volumes of
Jurassic & orthocladic strata in which apatite
has recently been found to exist in large or rather
masses. Such rocks these rocks, are largely
developed in the vicinities of the Ave Leam
River on lots 18, 19, 20 & 21 in the Con-
cession of Buckingham, where the extent
up into Portland Township; the position
of these ^{apatite} rocks in Buckingham & Portland
while to the southward, in Buckingham, &
in a position which would appear to be
immediately above them, I have succeeded
in tracing a belt of plumbaro rocks

for several miles - ~~But this is precisely the~~
~~condition~~ ^{relation} of the rocks in Burgess & Blomley
 named in the apatite-bearing rocks of Buckingham
 Mass, we have precisely the same character as
 the apatite-bearing rocks of Buckingham are
 precisely the same in their general character
 as those of Burgess, & in them the apatite oc-
 curs in the same ~~two~~ ³ conditions, namely, as
 irregular bedded masses, veins, & aggregations
 of crystals in a matrix of pink carbonate of lime.
 Now I find, there does not exist in my own
 mind & the slightest doubt but that the
 rocks in both these positions, Buckingham
 & Burgess, are in the same stratigraphi-
 cal position ~~in~~ ⁱⁿ Mass, & are portions of the same
 group. In Ferrisville again, ^{several} ~~numerous~~ localities
 in which plumbago occurs, have been mentioned
 in former Reports, in the Geology of Canada
 1863, page . These I have recently carefully
 & the whole of them I find are connected
 with the Ferrisville band of limestone, which
 as you are already aware, lies in a series

of irregular trough forms - In Grenville
as in Benguer, in this Grenville band
as in Benguer, mica is also found in
sufficiently sized crystals, to render them
of economic value, & the stratigraphical
position of them as laid down by Sir W.E.
Logan, agrees closely with those in Benguer.
Thus it is extremely probable, that Plum-
tazo (in workable deposits) mica & apa-
tite all particularly characteristic of the highest
^{bed} bands of crystalline limestone ext. recog-
nized in the Lower Laurentian series & that
this band ~~is~~ in this ancient series of rocks.
It must, however, be mentioned that these
economic deposits must not be expected
to occur everywhere, where. In Grenville
these rocks are unconformably overlain
by the Upper Laurentian or Labrador
series.

Also see page 69

Position of Cozom, in the

In the section through Mt. Bergen, given on page of this report, I have shown the position in which the Bergen-Cozom specimens of Cozom were found. It will be observed that this occurs immediately ^{at} beneath the base of a band of Crystalline limestone which lies beneath the greater part of the Bergen apatite-bearing rocks. This position is very similar to that in which the Cozom occurs in Jewell, & in both places it is associated with pyroclastic strata & serpentine. More recently again, Cozom has been found to occur in Dalhousie townships in a serpentine & graphitic limestone which associated with the diorite, & hornblende rocks of Group III, & not far removed from the base of the Lanark limestones of Group IV. Now these last, however, ^{are to be compared} correspond to the Bergen band of limestone, we cannot at present state positively - with any degree of certainty -

H. Vernon

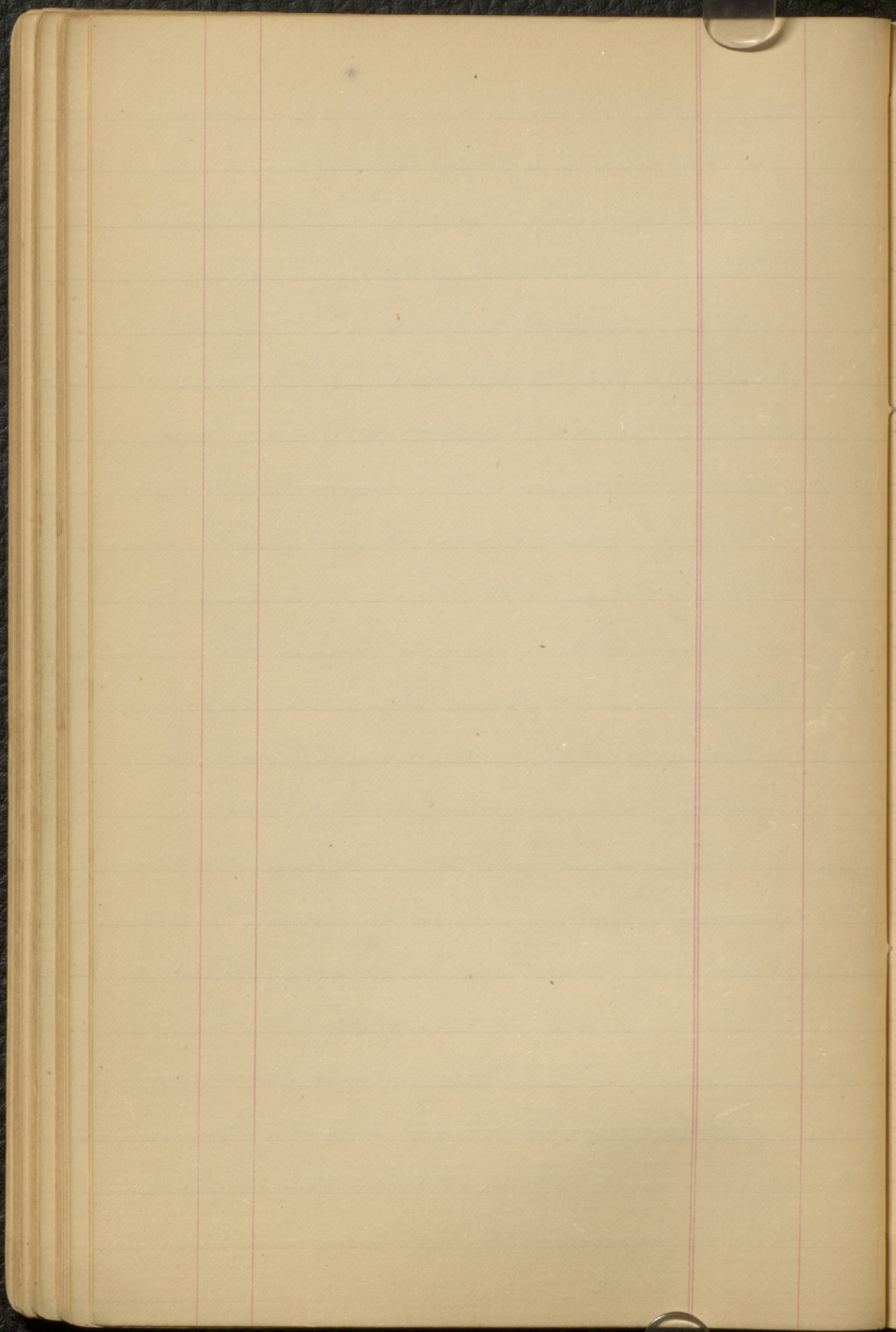
Shell Marl & Peat. It would be also occupy
too much space, to enumerate all the
Lakes in Frontenac & Lanark Counties in
which shell marl is known to exist, but
& I would simply state that those in which
it has not been found are the exceptions -
Loughboro Lake & Floats Lake in Loughboro
Township, White & Sharbot Lakes in Eldon
Townships are localities which may be
particularly noted. In Sheffield a deposit
of shell marl extends over a large area on
the 15 & 16th lots in the second Concession &
on the 12th lots in both the 3^d & 4th Con-
cessions of the same Township. Both of
these last localities have been alluded to
by Mr A. Murray in the Report of Progress
1852-53, page 152, since which our
attention has been directed to them -
The deposit on lots 15 & 16, is in my opinion
very extensive, & it varies from 4 to 15
feet in depth over at least 100 acres.
The deposit on lots 12 in the 3^d & 4th
Concessions, is covered by a consider-

able depth of peat, to which I would particularly direct the attention of those interested in the Economic. This has also been alluded to by Mr Murray in the report just referred to -

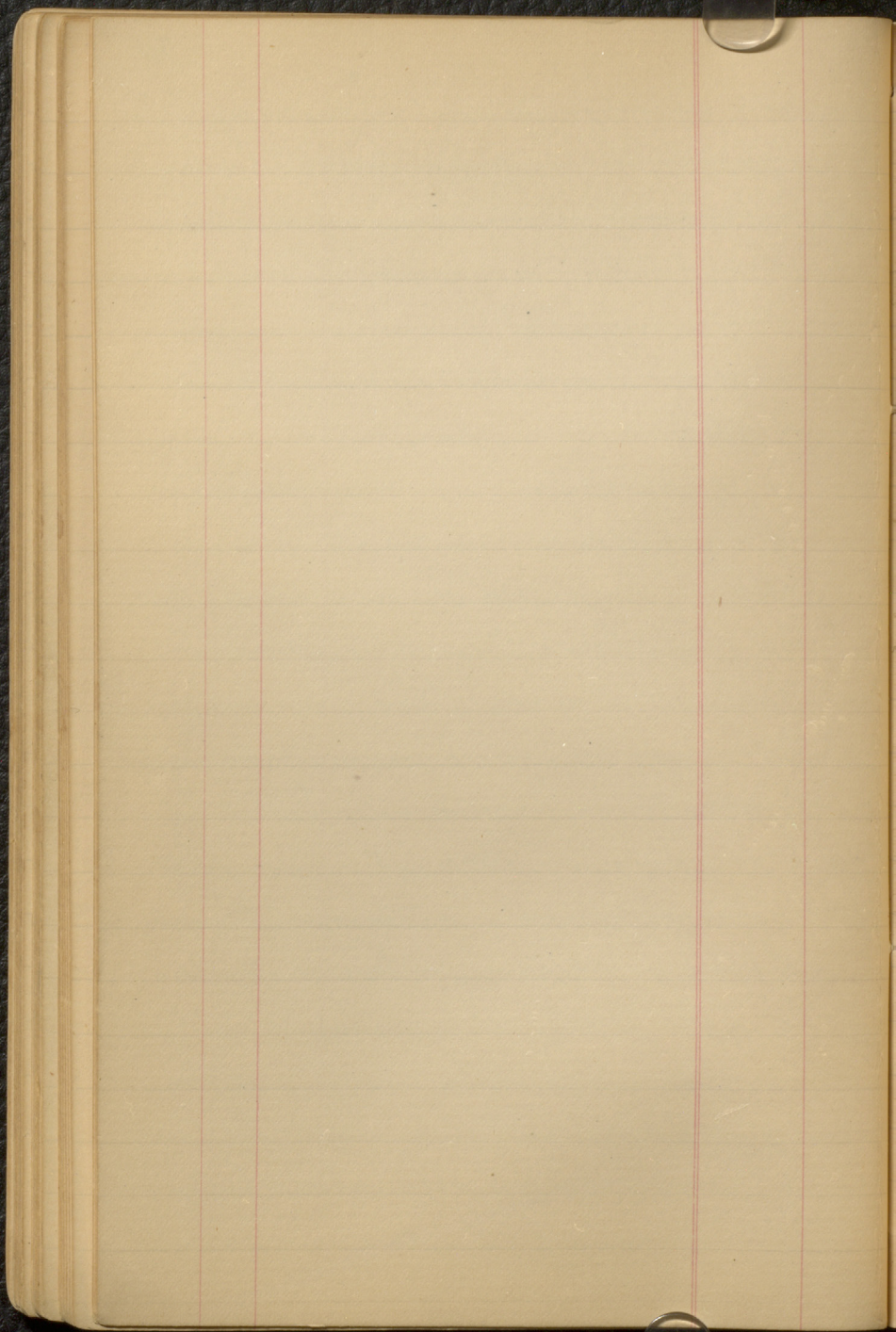
Molybdenum - a beautiful hand specimen of this mineral was shown me by a minister in Levant, who had just returned from one of his circuits in the bishopric of Malabar - Chan. It had been collected ⁱⁿ Galena, & which it precisely resembled, & it was only by the most chance, the thought of testing it suggested itself to me. The locality, ^{from} peculiar locality in which it had been taken could not be ascertained, but from what I could gather it was from the bishopric of Malabar - Chan & not far from the valley of the Madras - or aska river -

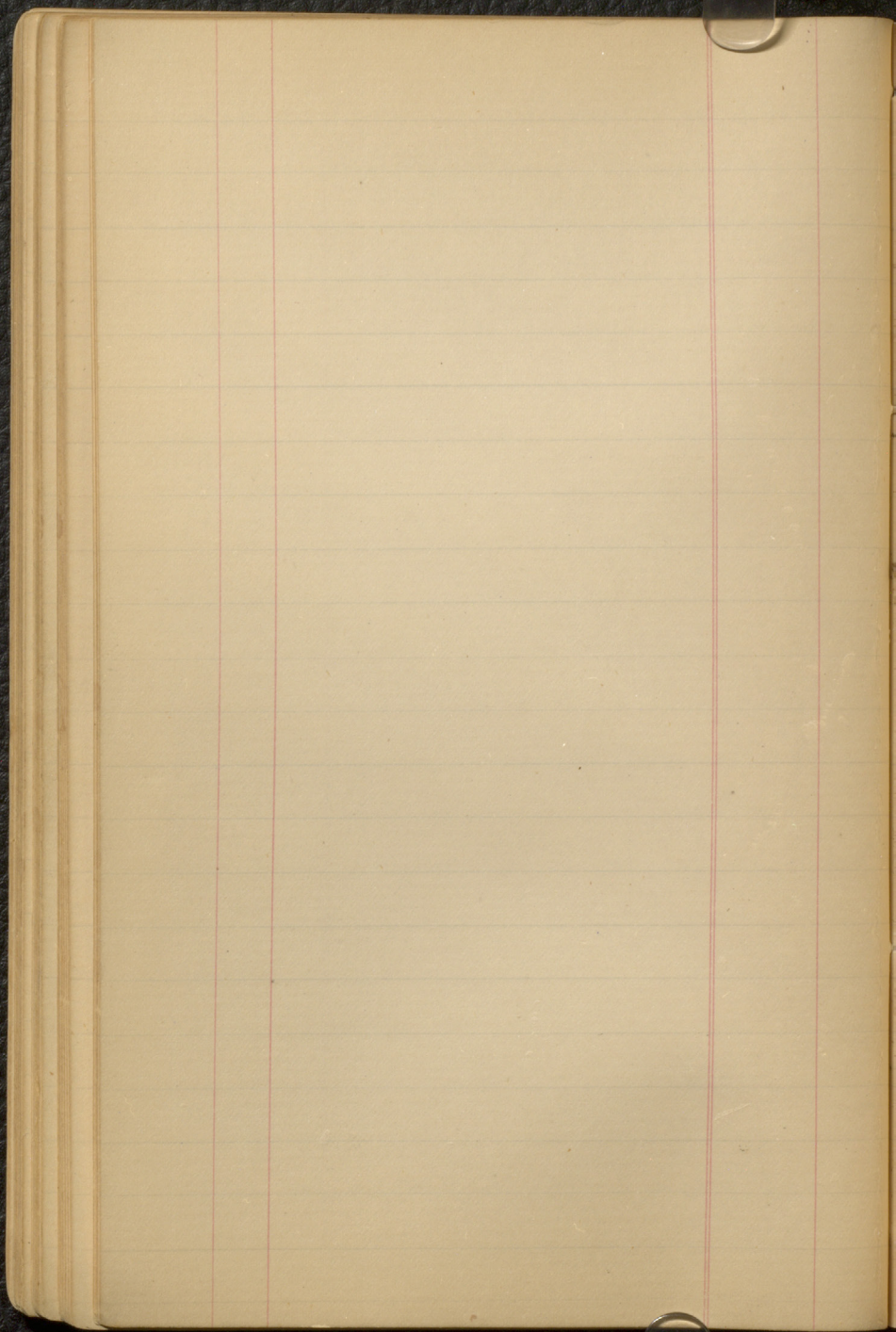
H. J. V.

Othy Lake, & thence north eastward along
 the southern shore of this lake through the
 7th concession of Elmshy - It is overlain
 throughout the whole of this distance by strata
 which are & consist of Proterozoic strata, which
 dip at a very slight angle to the south east
 ward - Above this again, at Adams Lake
 in North Bay is the highest uppermost
 volume of garnetiferous gneiss, which appears
 to fill the center of the Bay's synclinal, & on
 the axis of which Adams Lake is situated -
 This synclinal of garnetiferous gneiss expands
 & flattens out in its distribution through N -
 Elmshy, its north western out crop crossing
 north eastward, & its south eastern margin
 crossing south eastward across the Rideau,
 where this spread out in Elmshy, the axis
 of the trough is occupied by the graphitic
 limestone of Oliver Ferry, which ~~consequently~~
~~would occupy~~ the highest is not represented
 in Bay, & which would appear to be the
 very uppermost of the Calcareous belt yet
 not so.

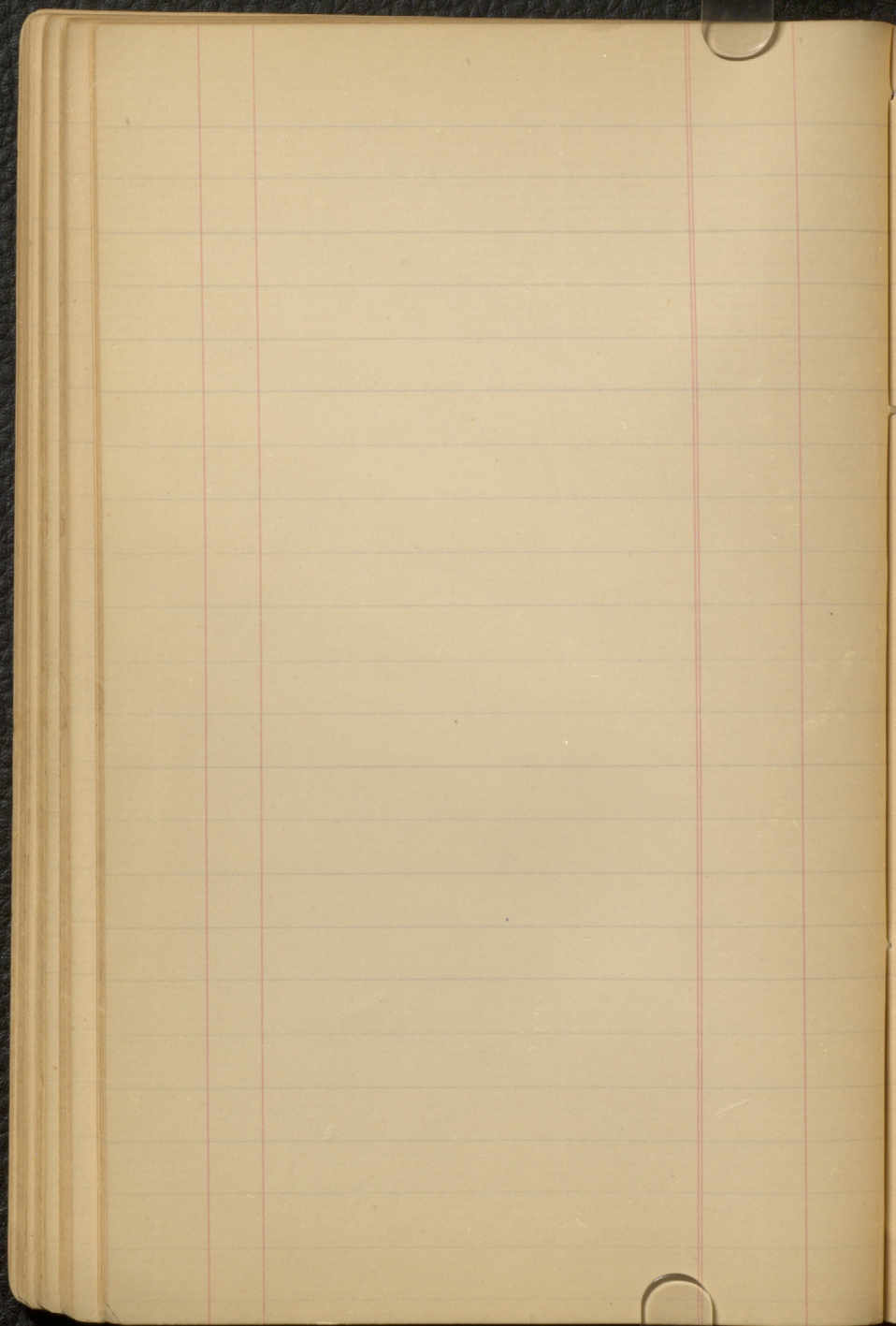


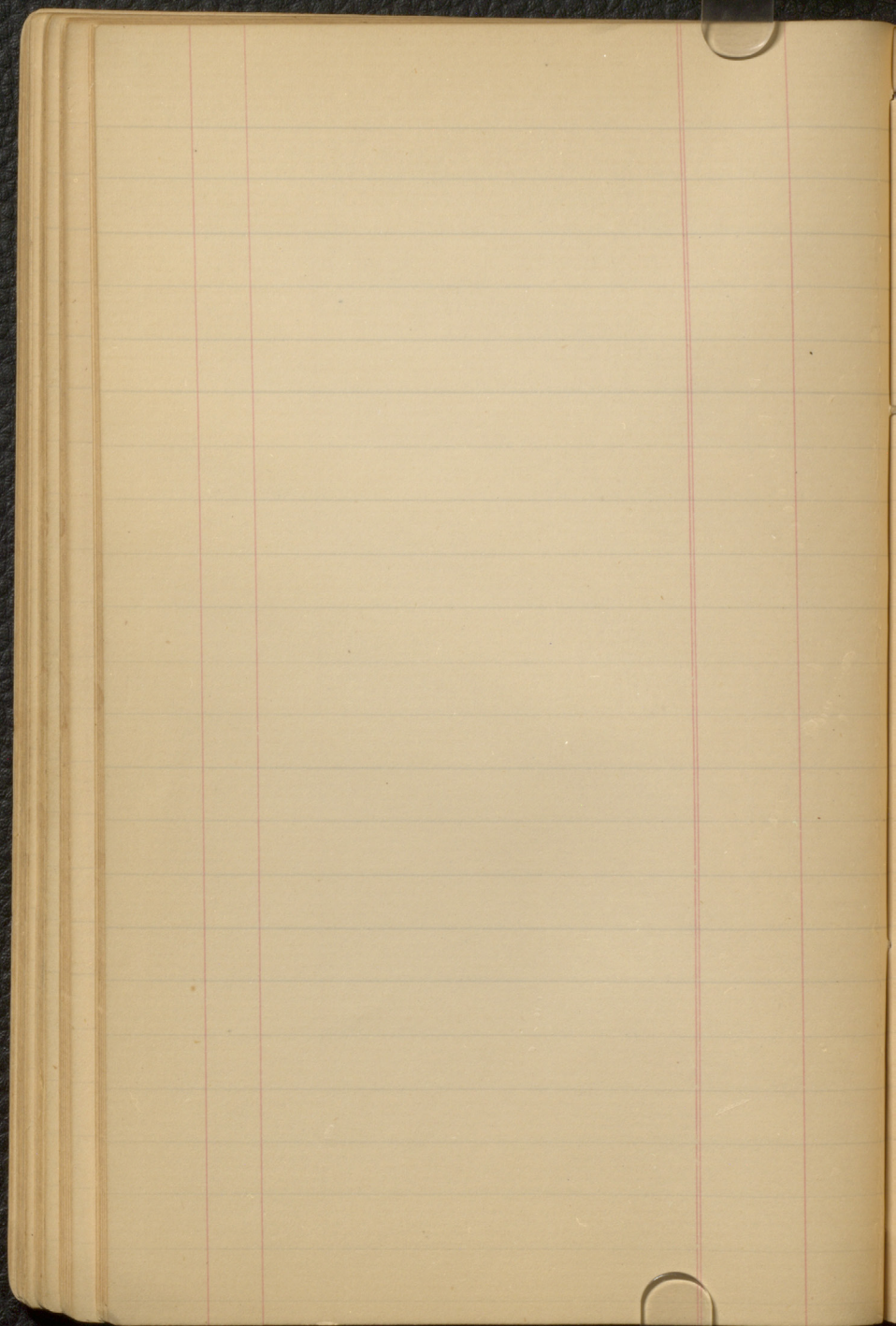
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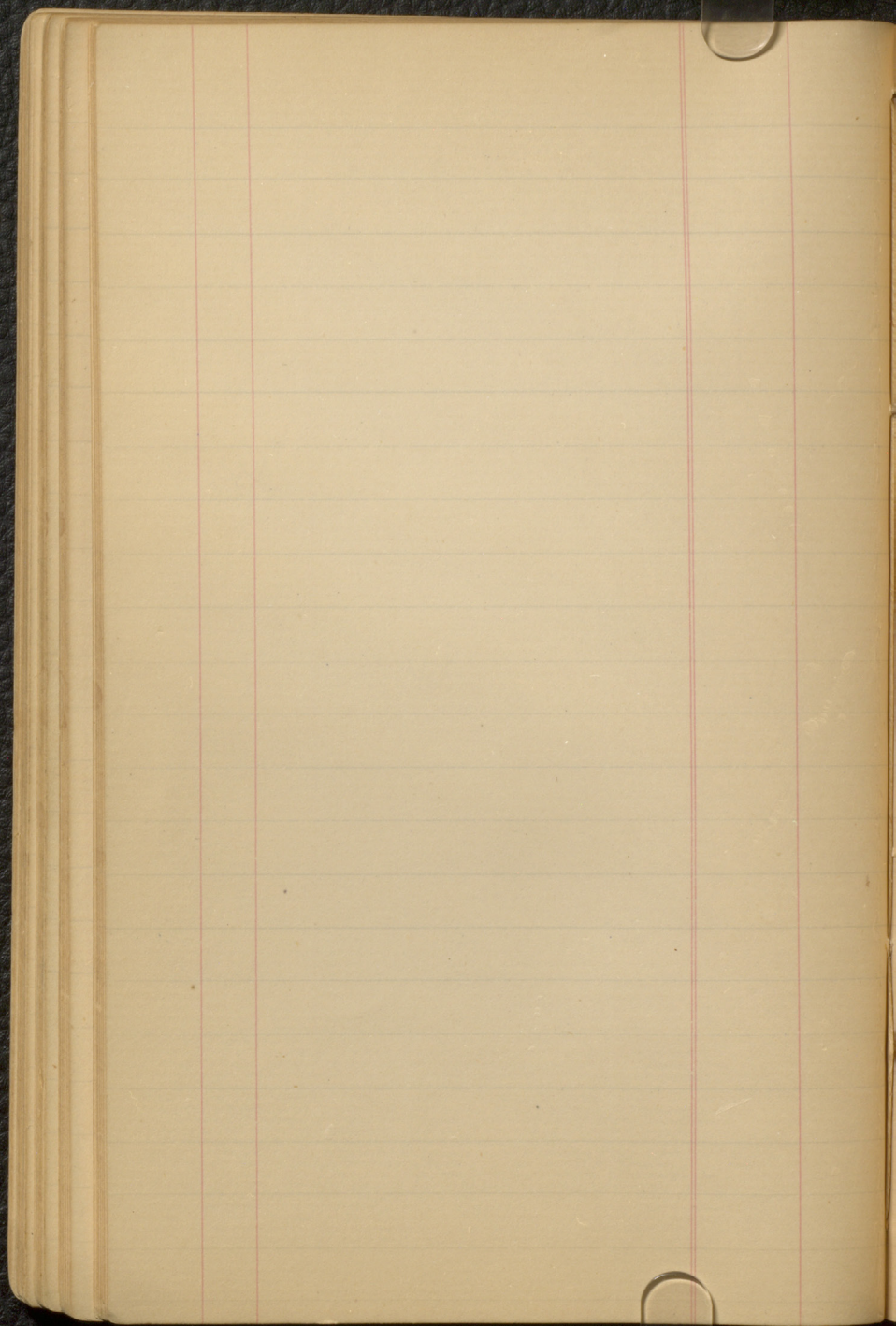


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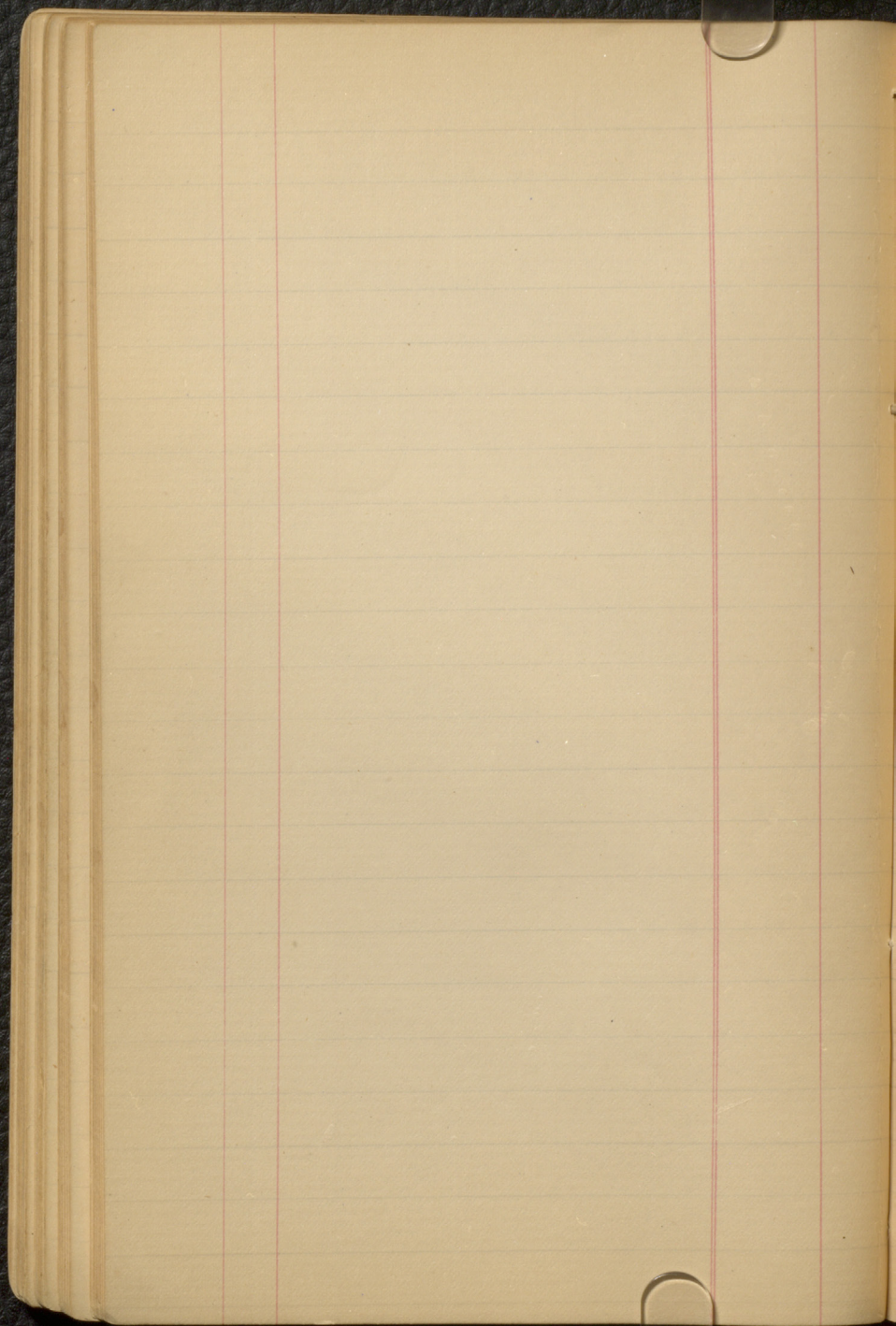




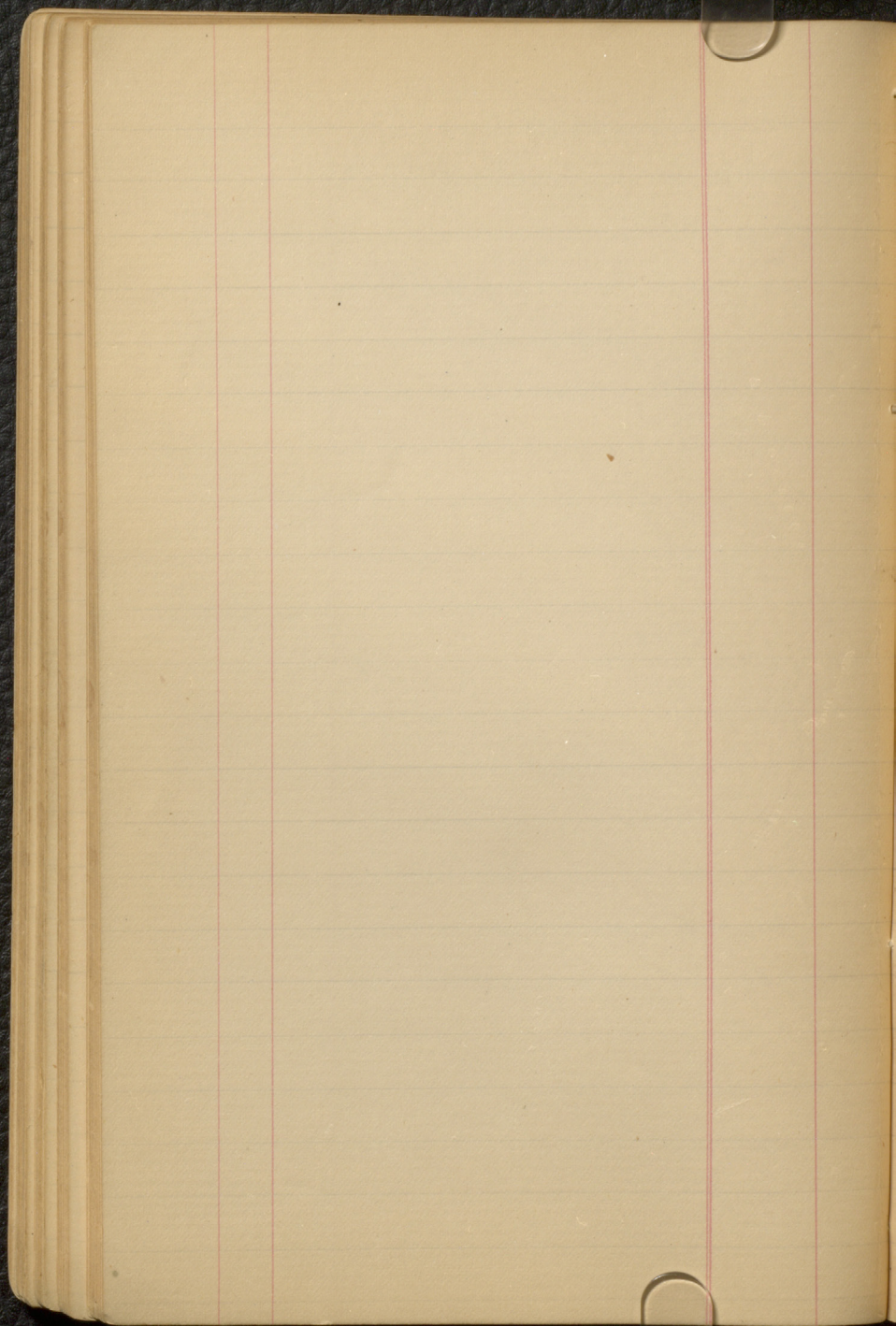
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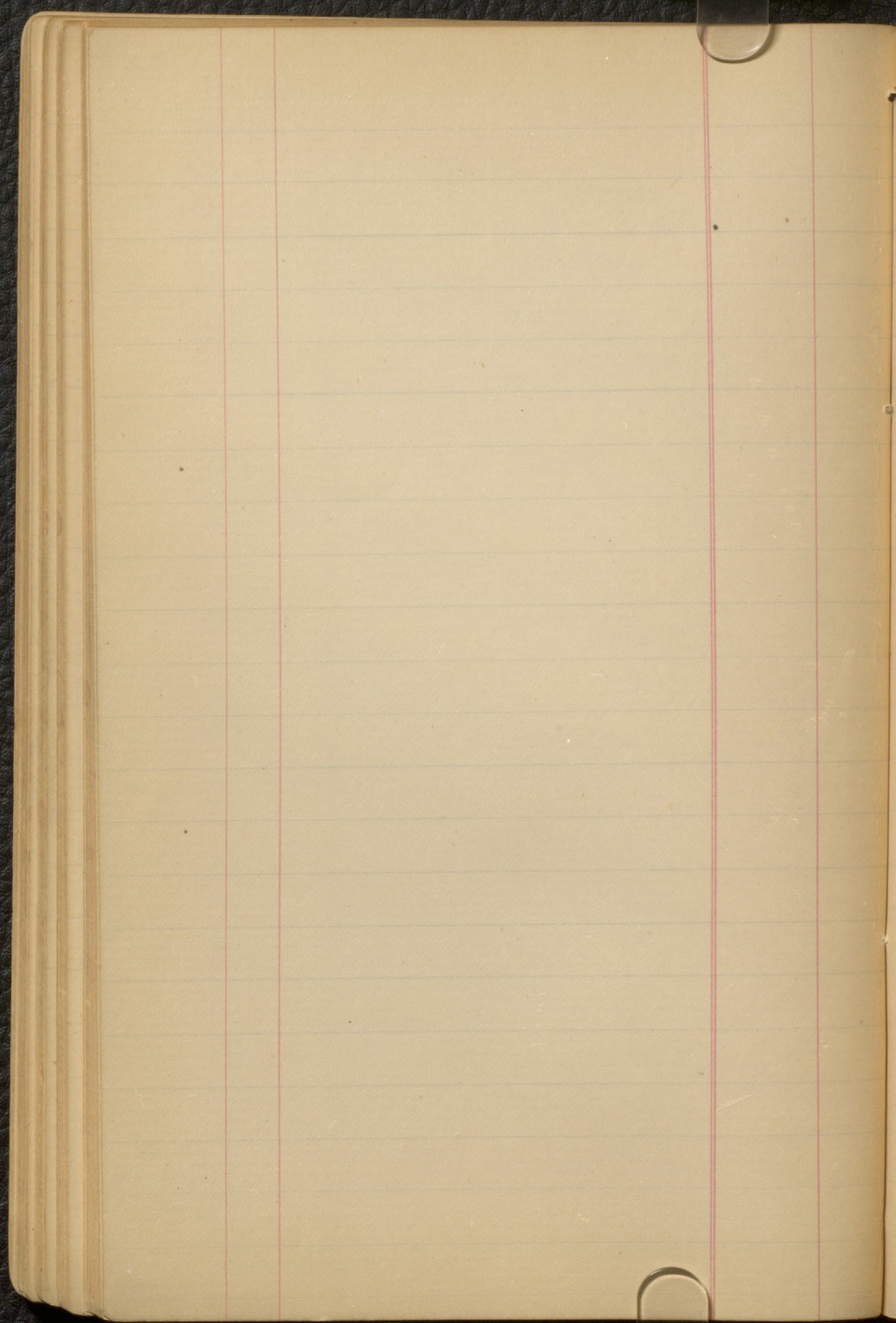
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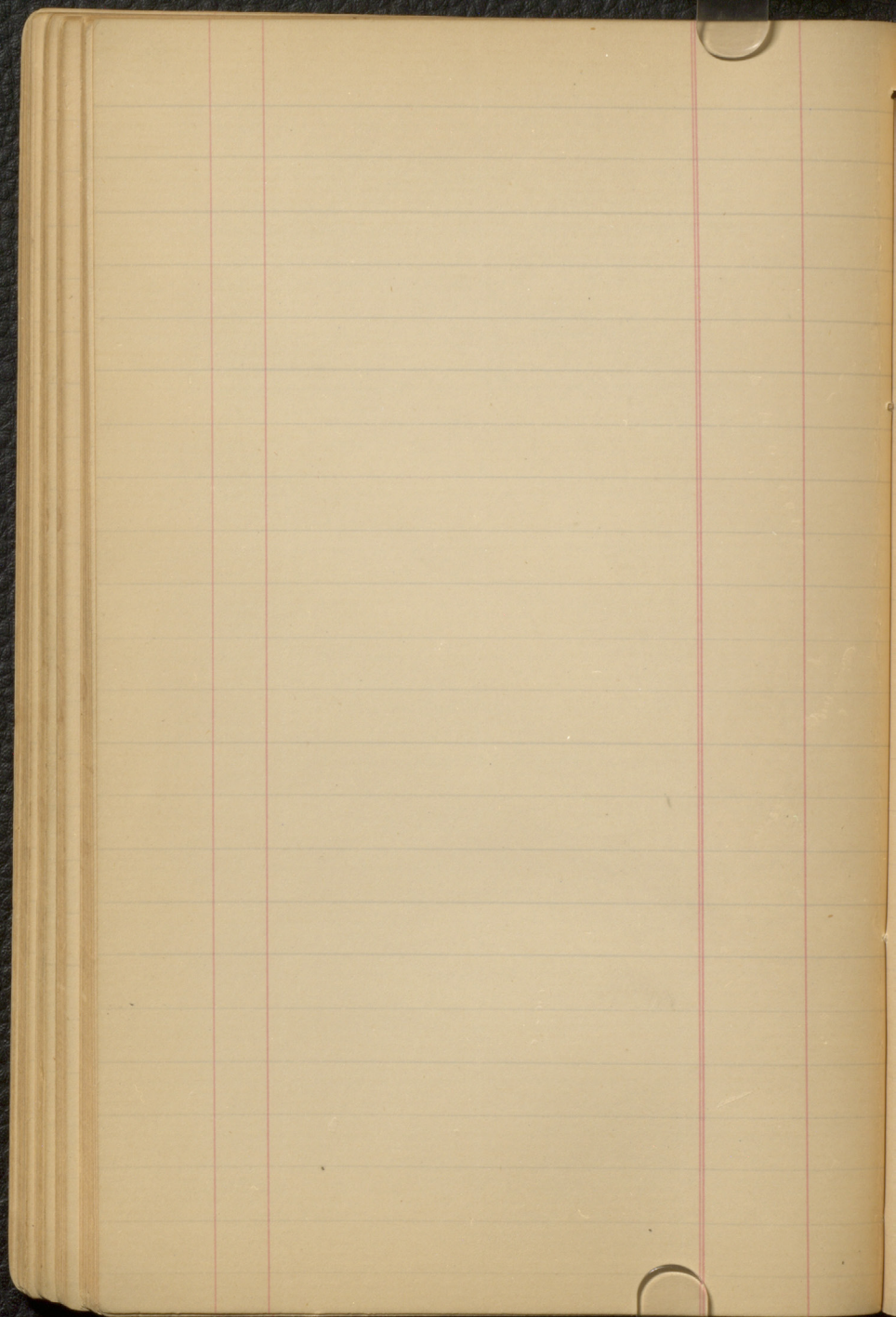
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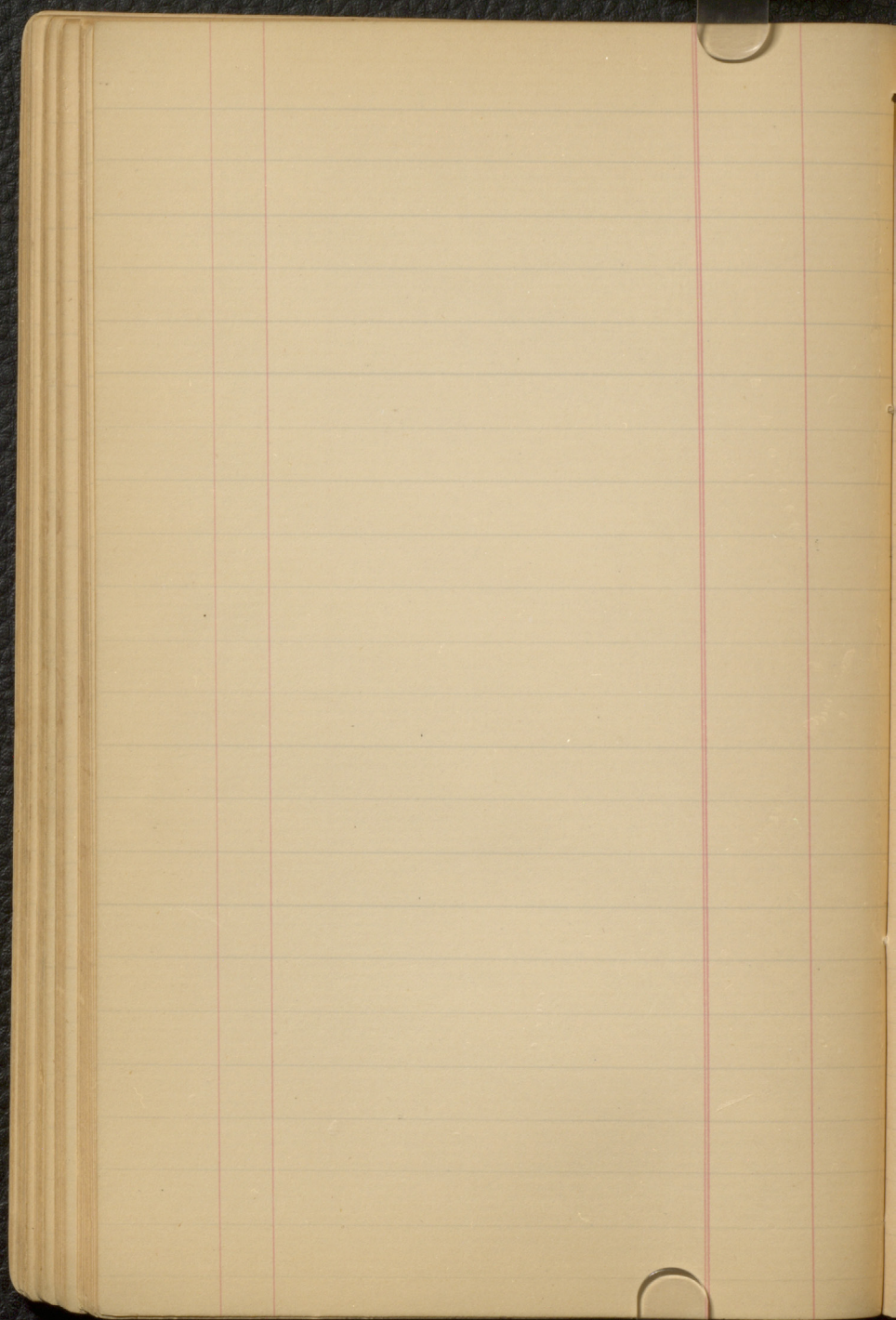
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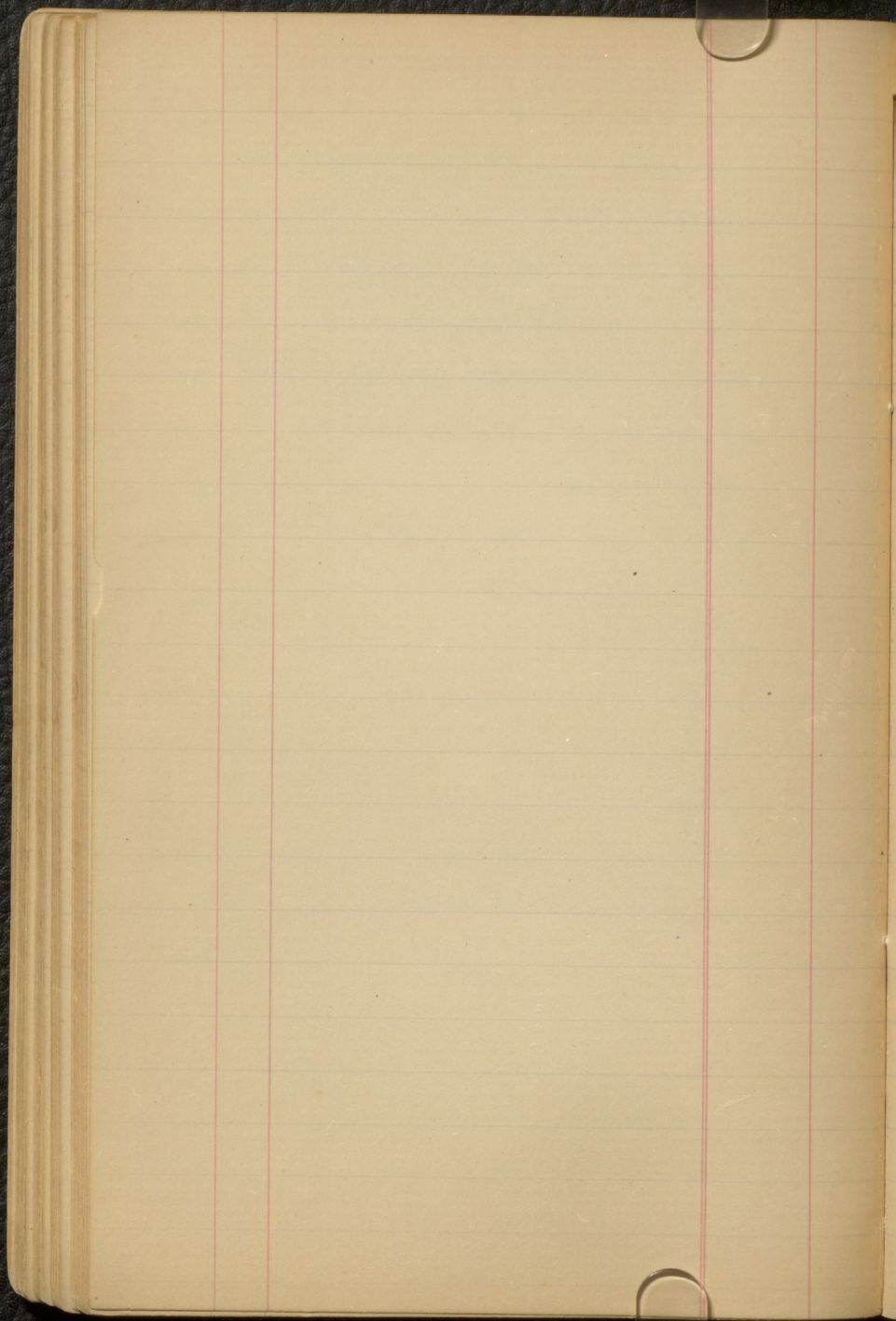


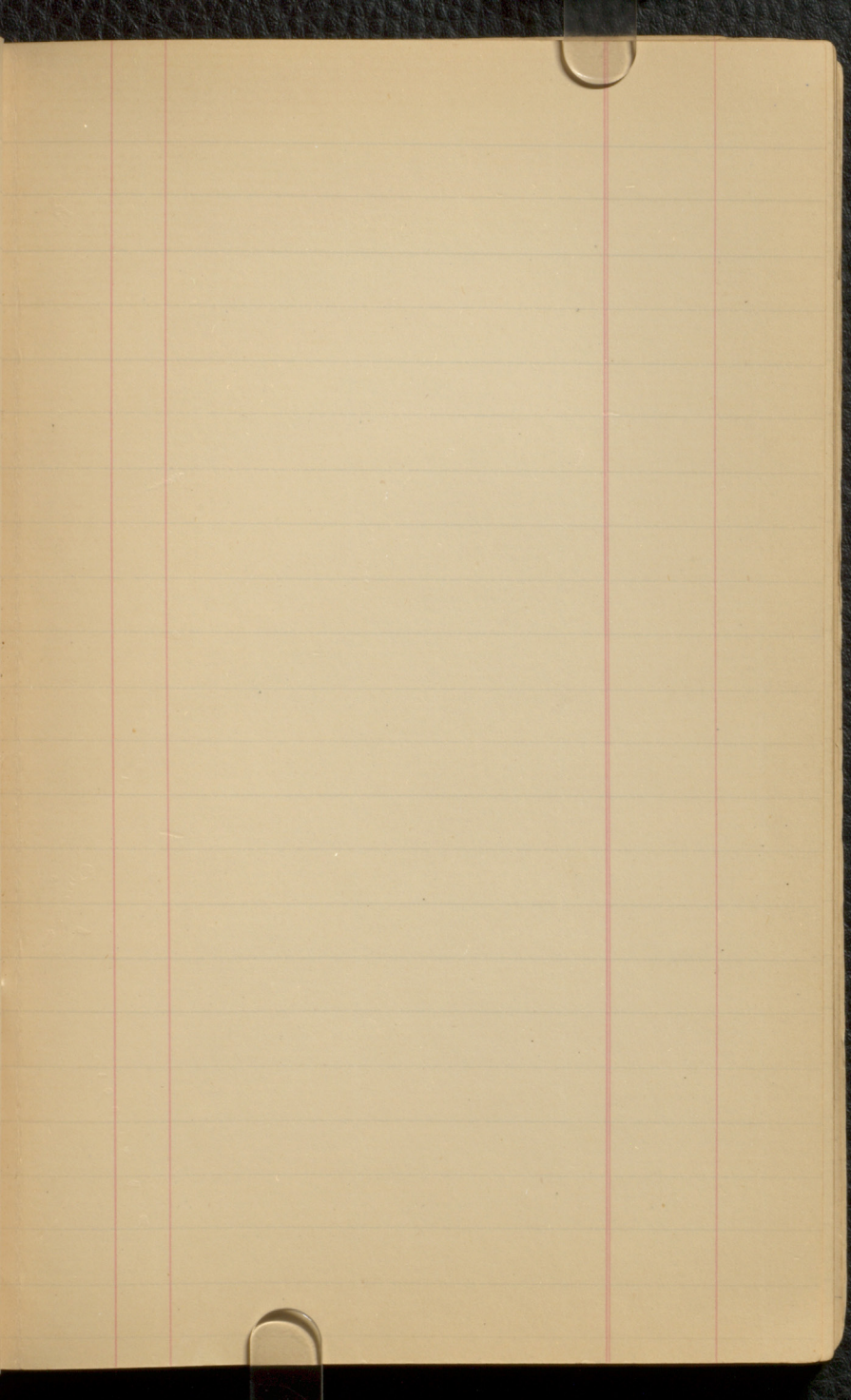
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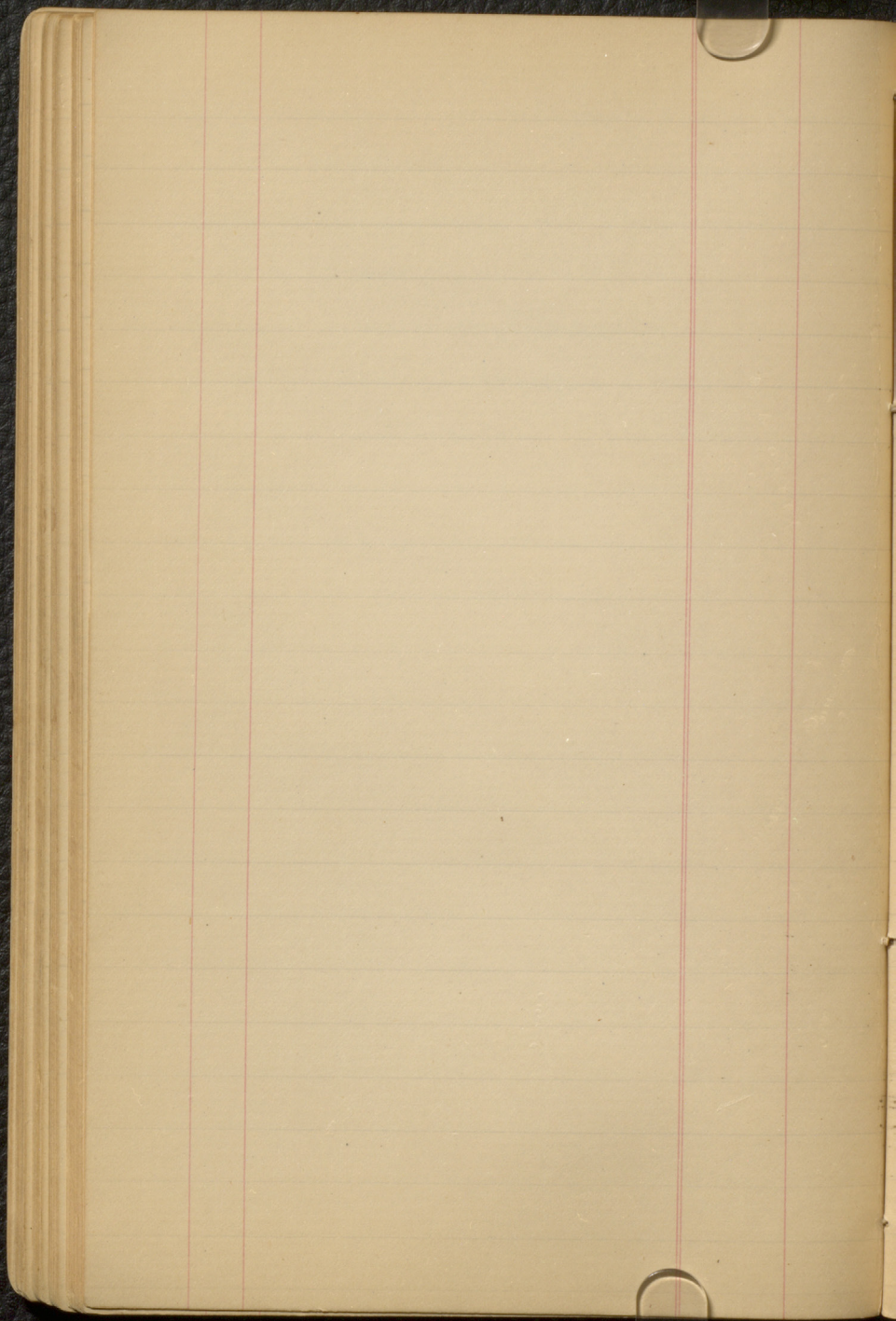


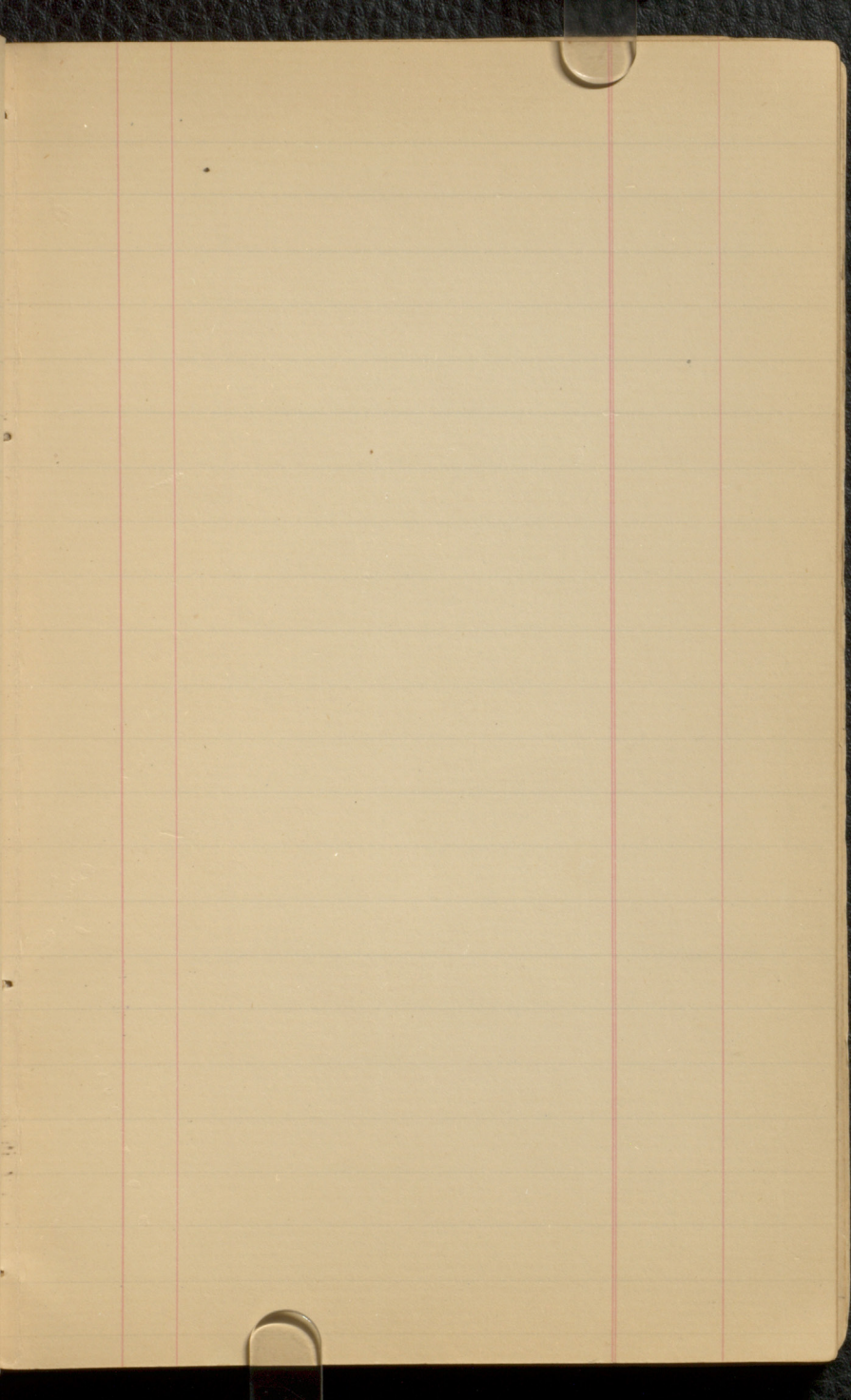
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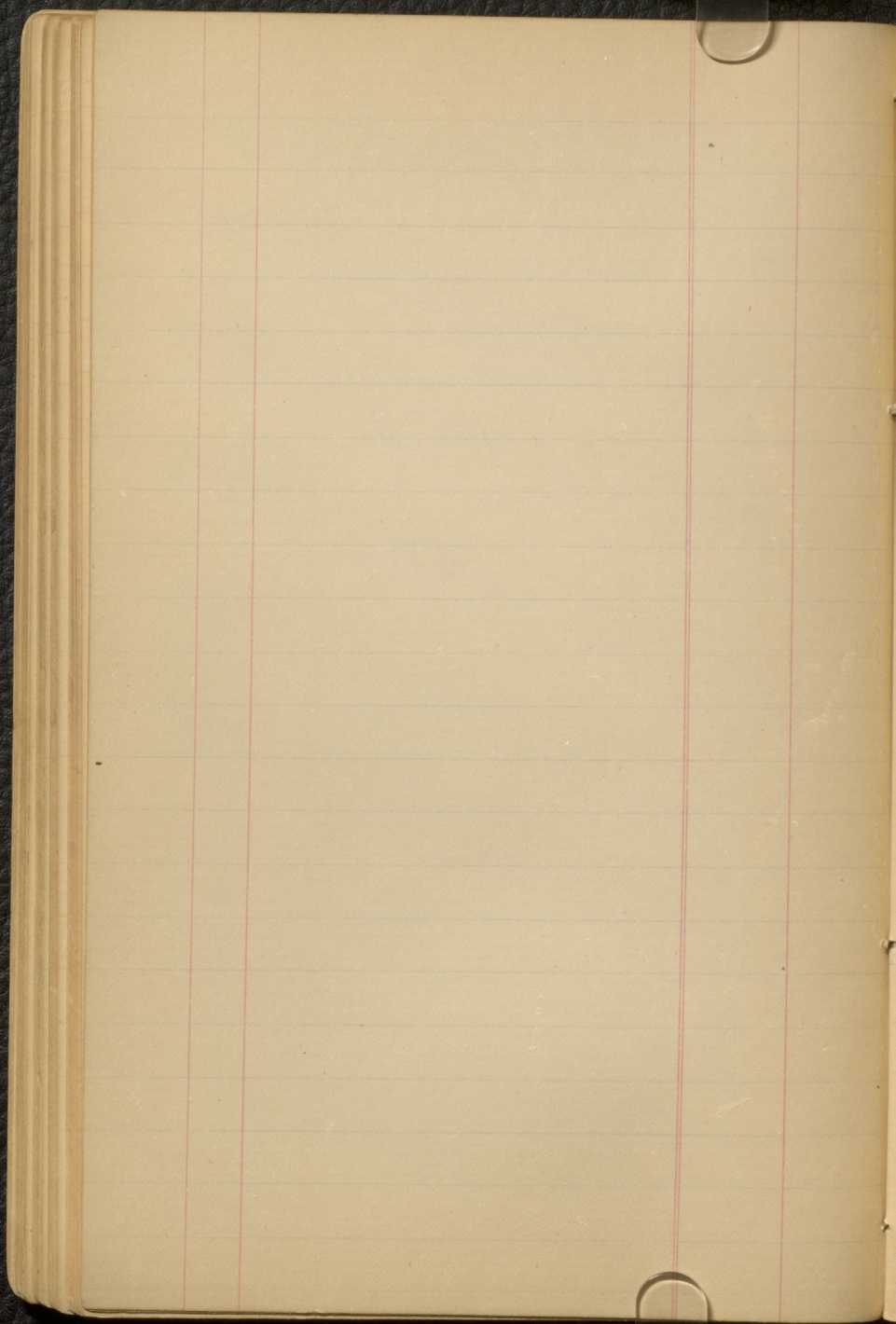


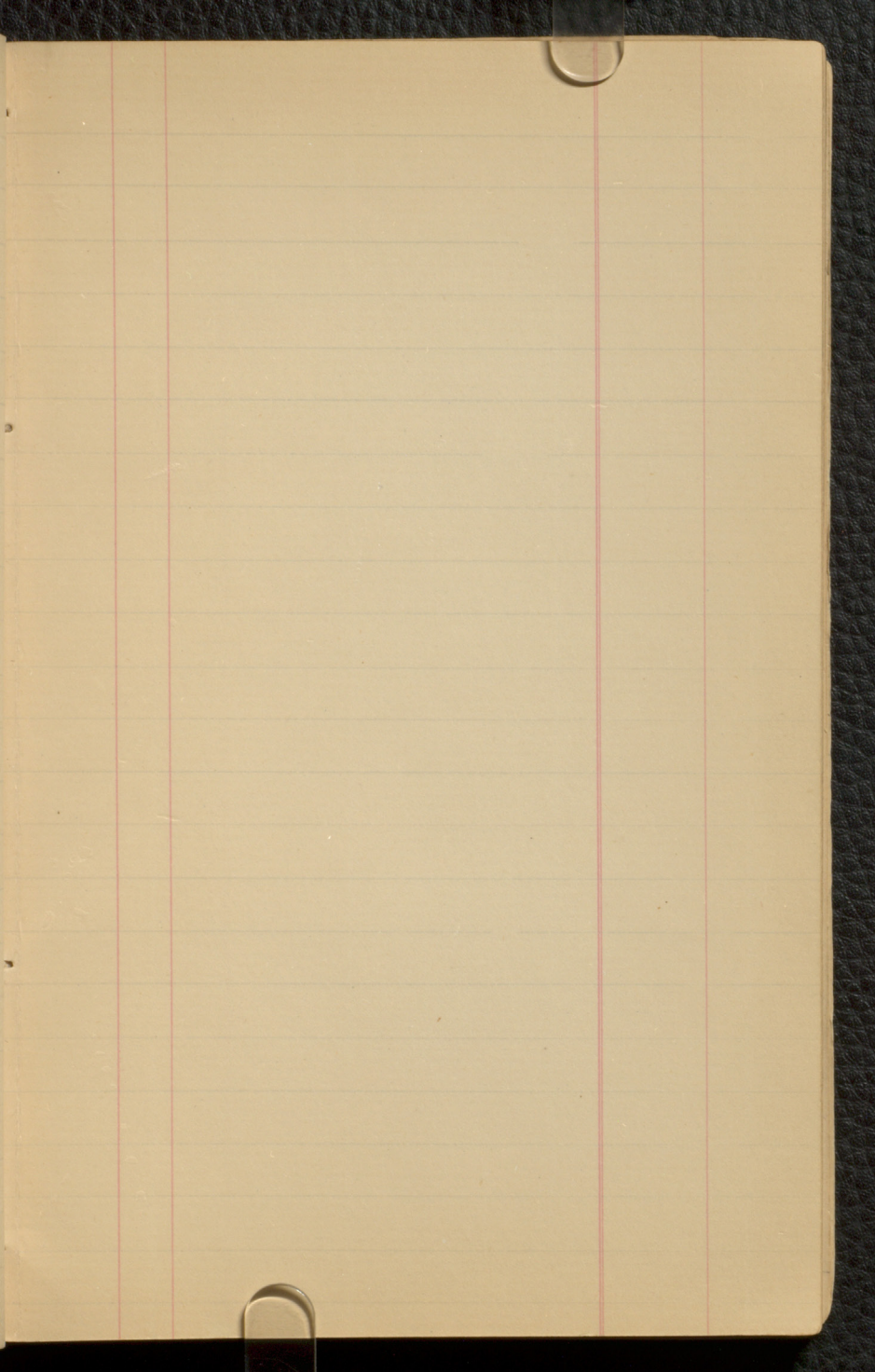


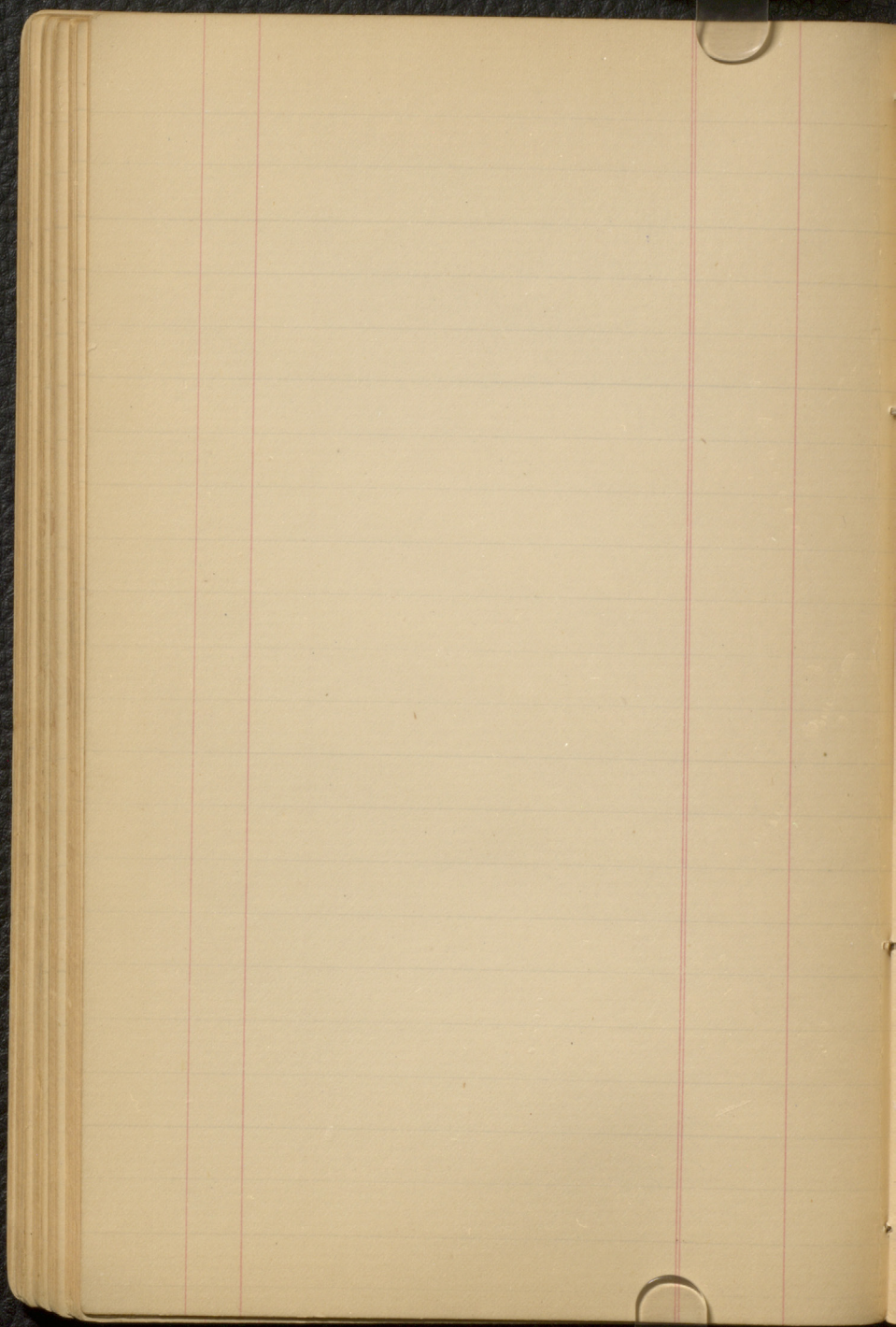


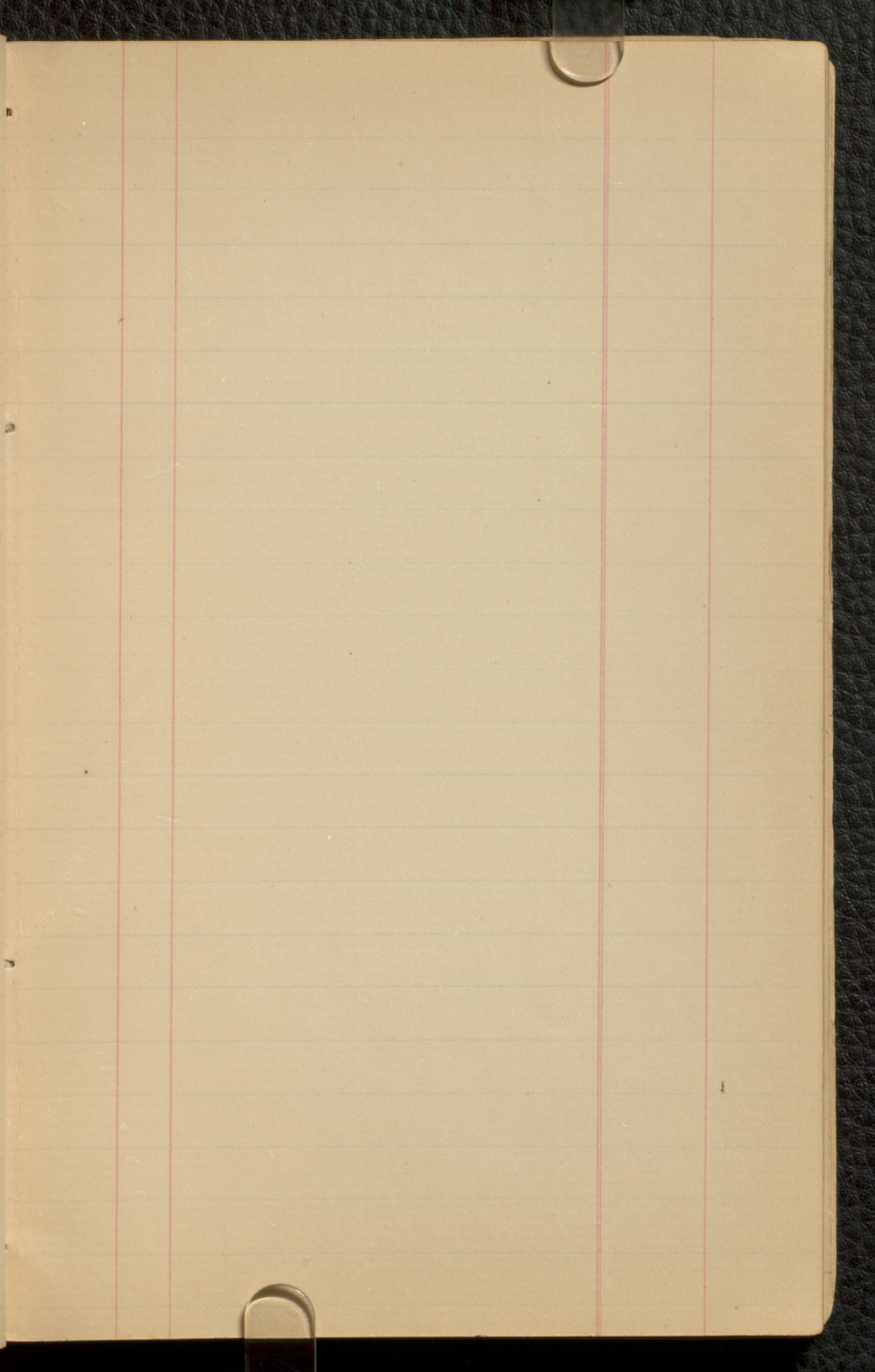


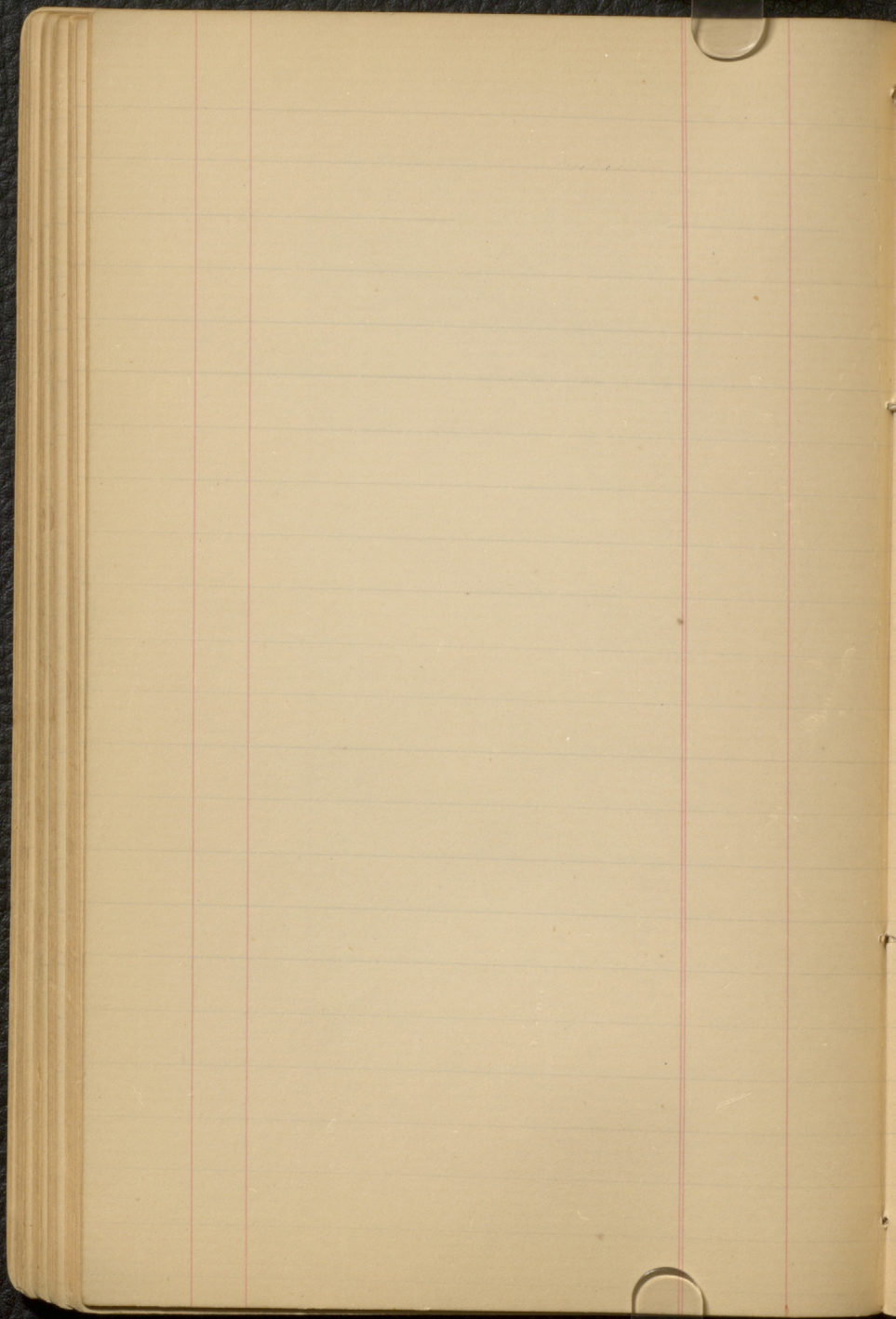


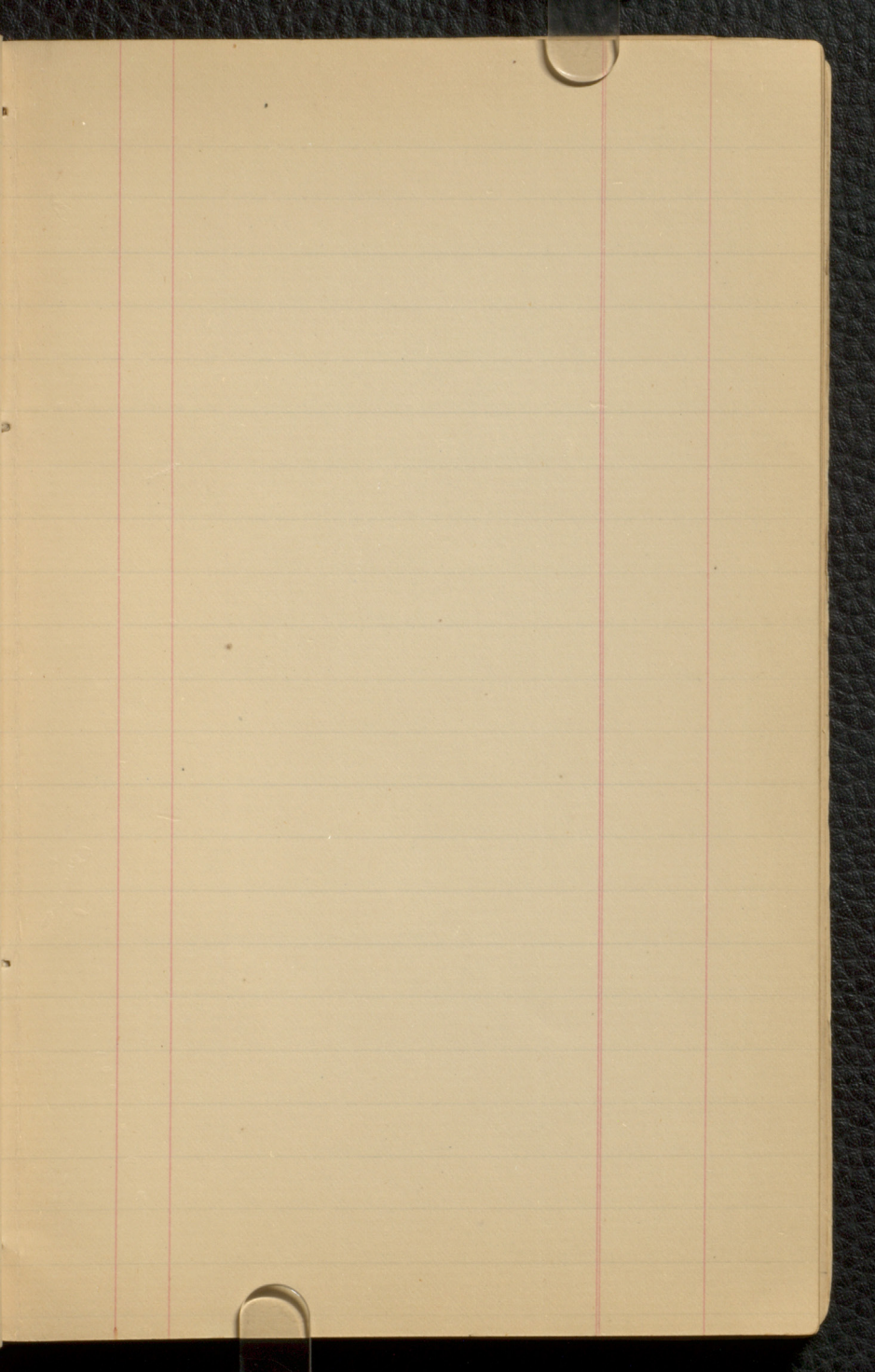


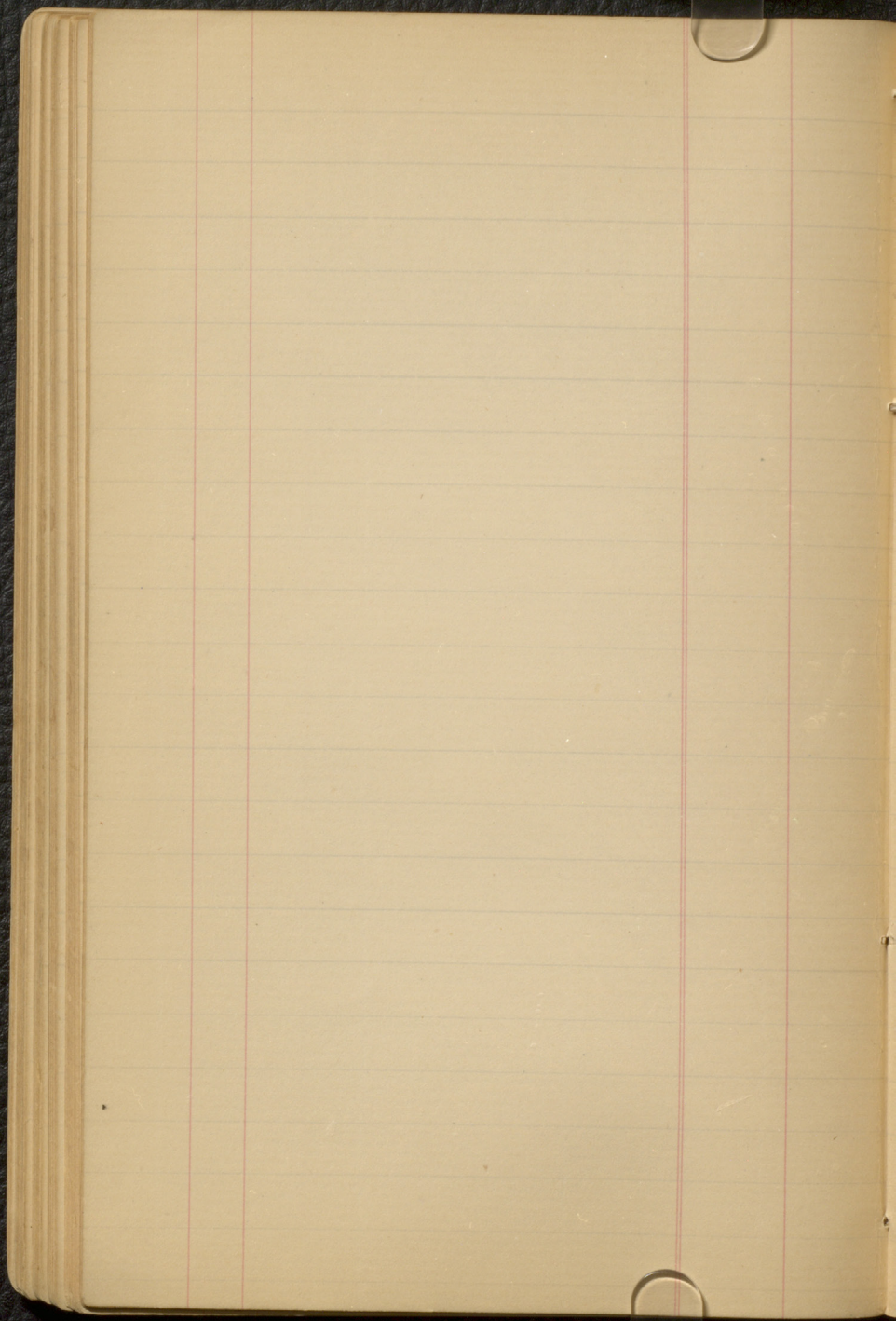


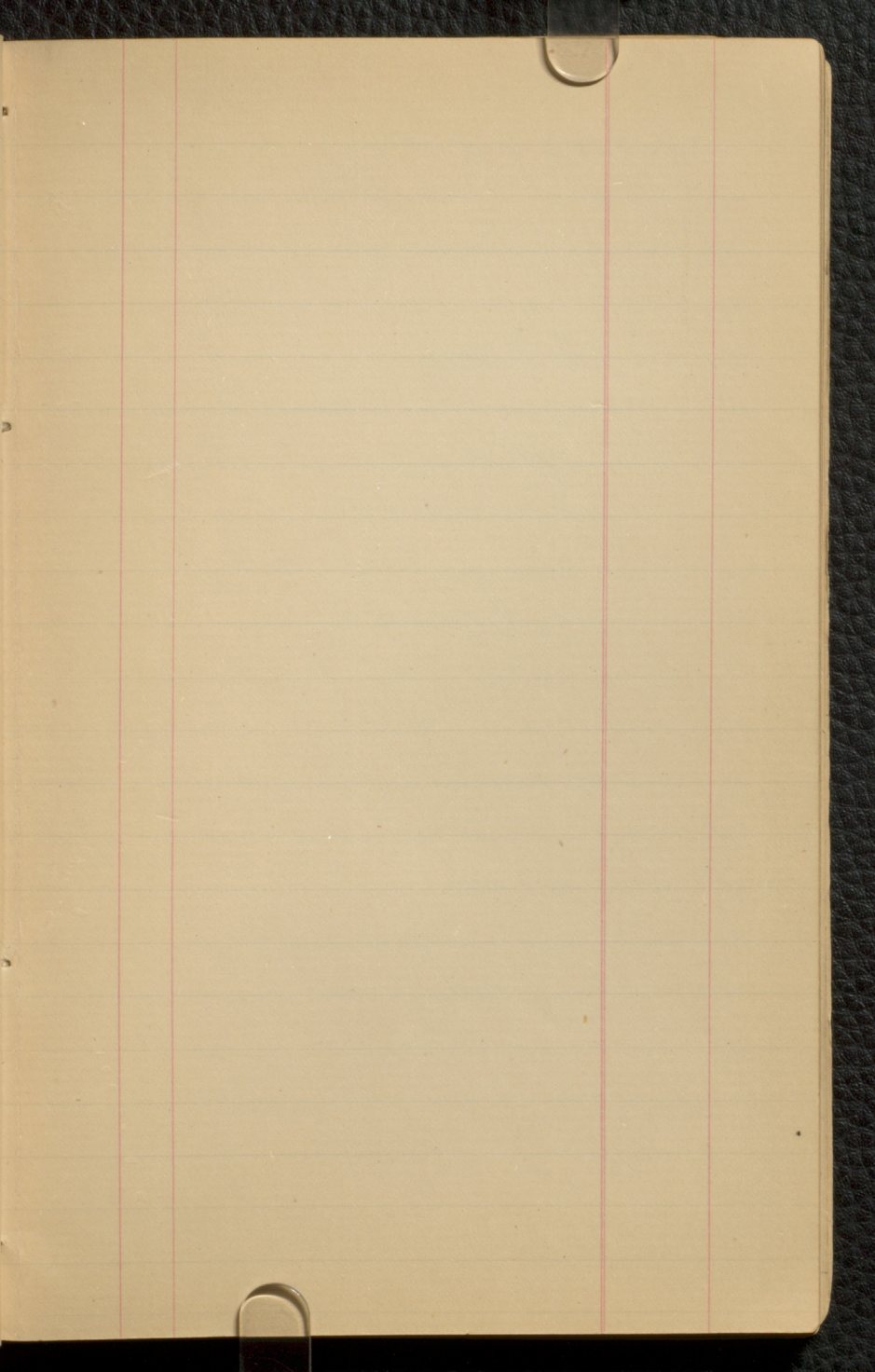


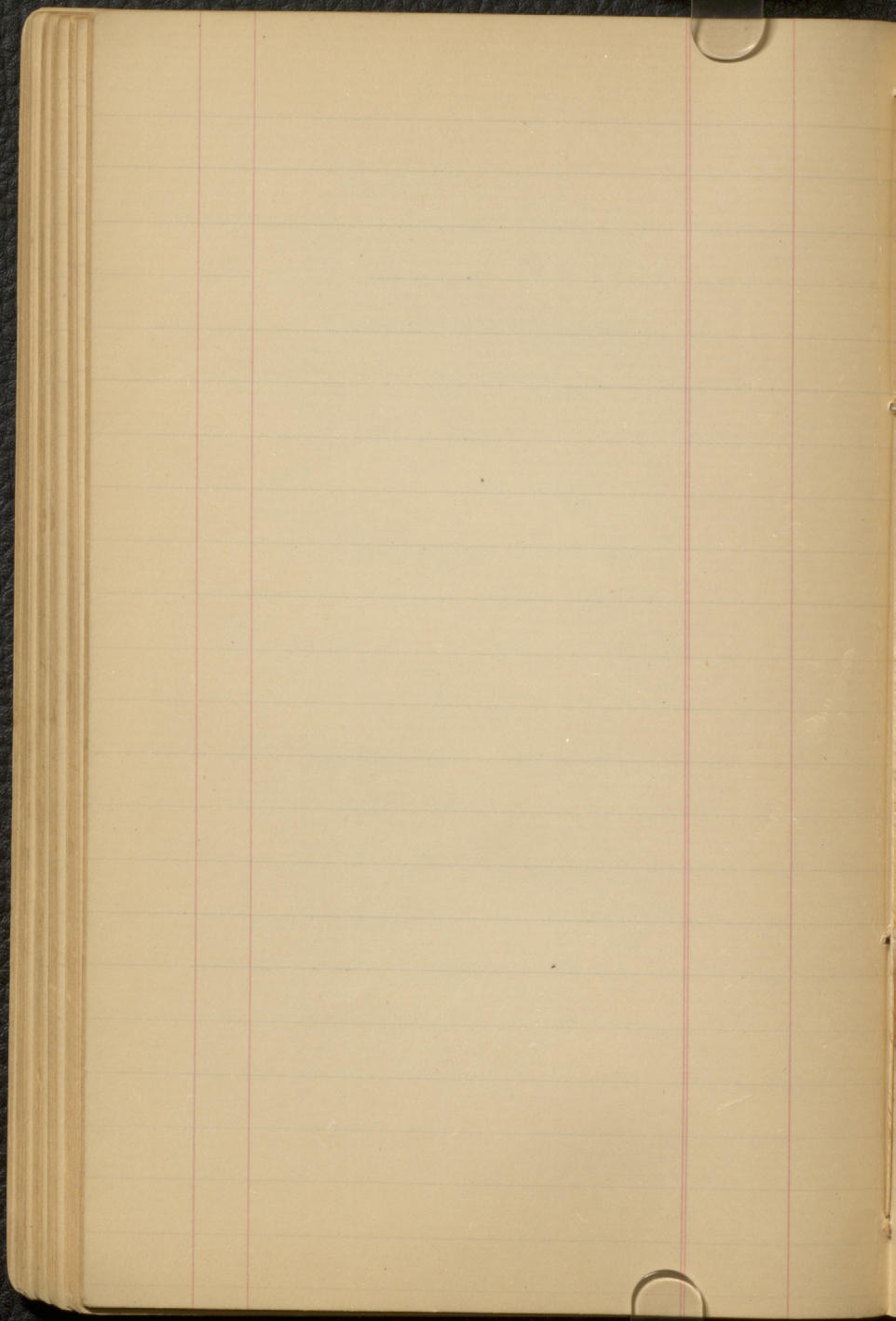


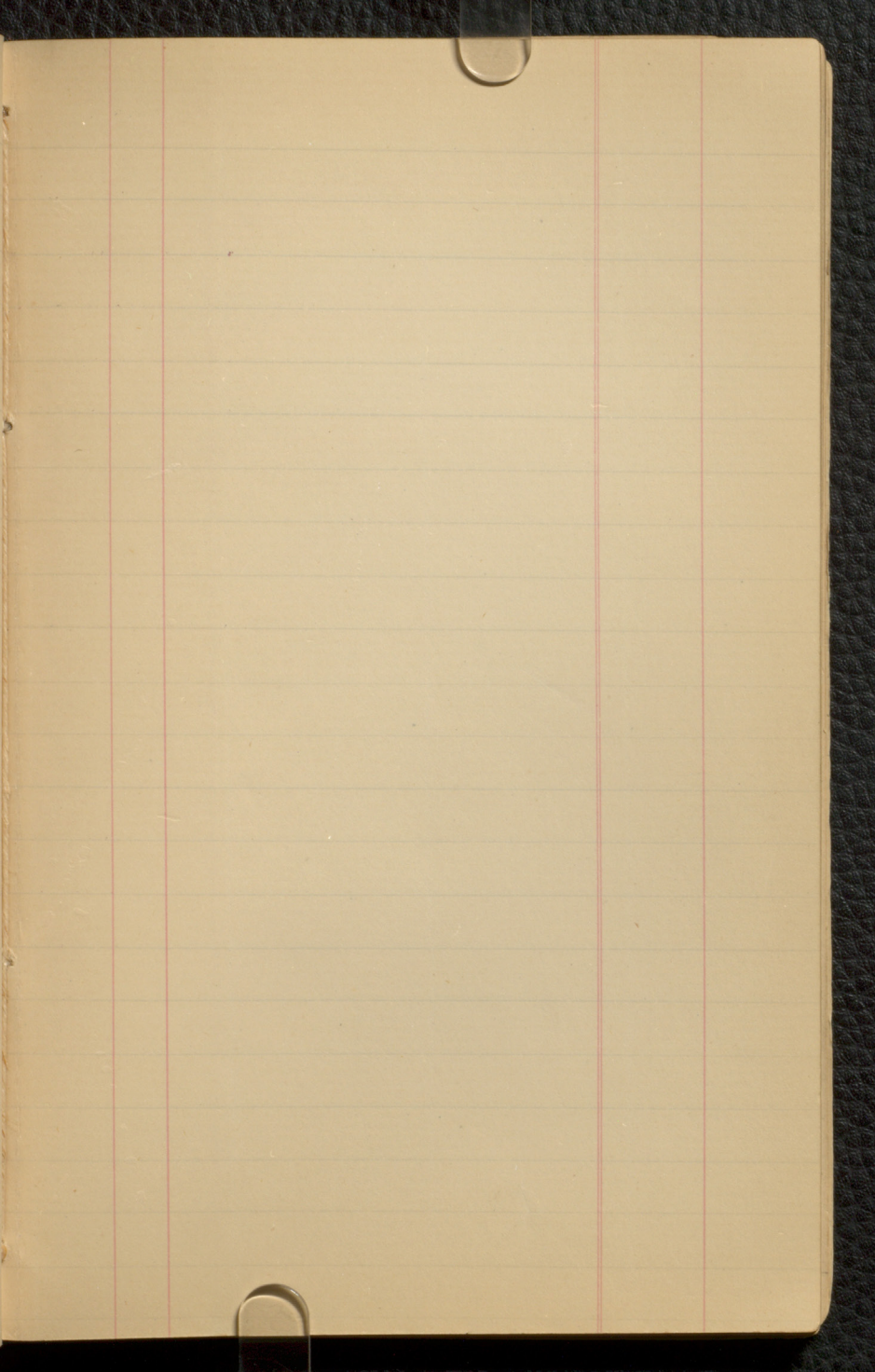


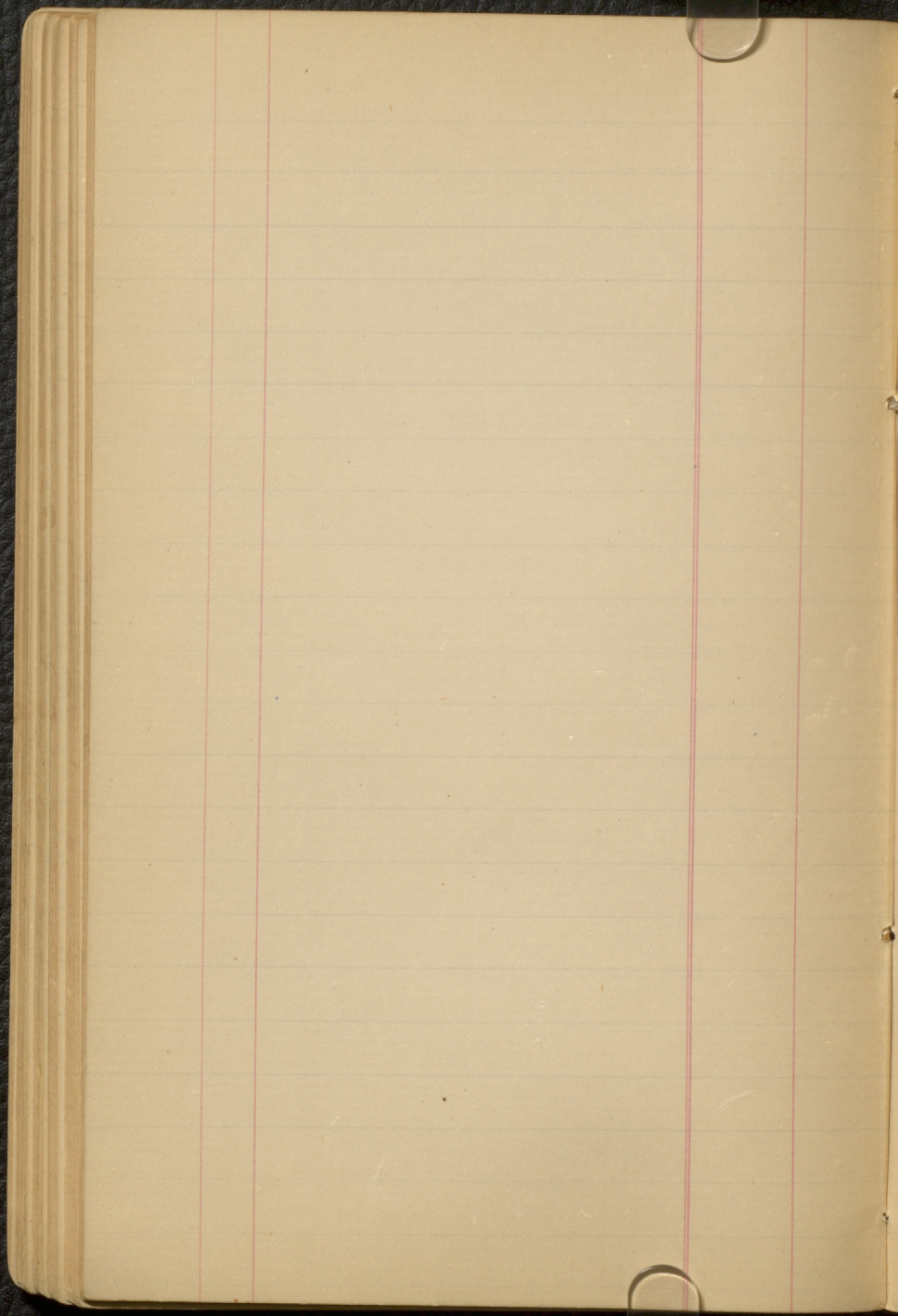


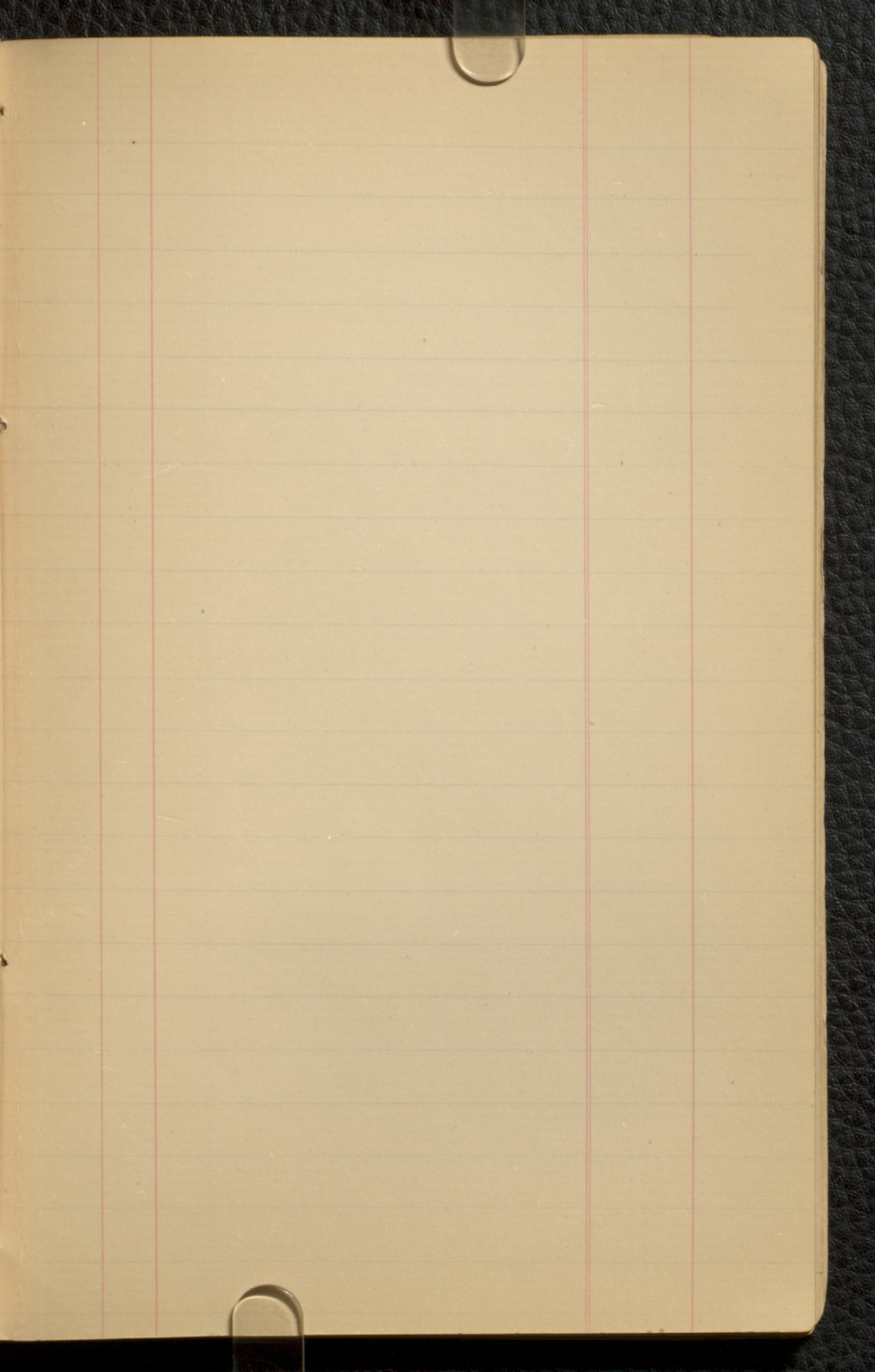


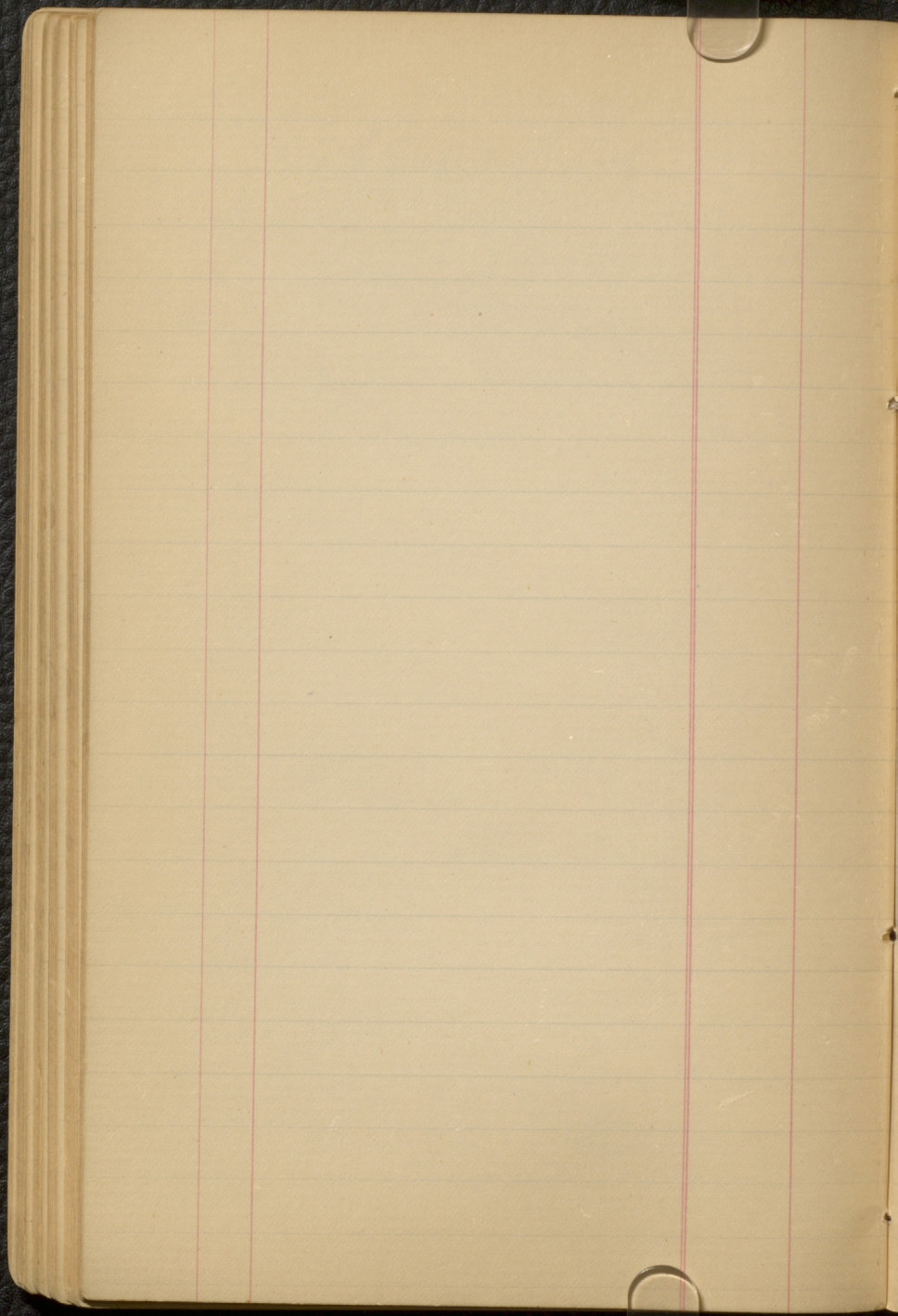


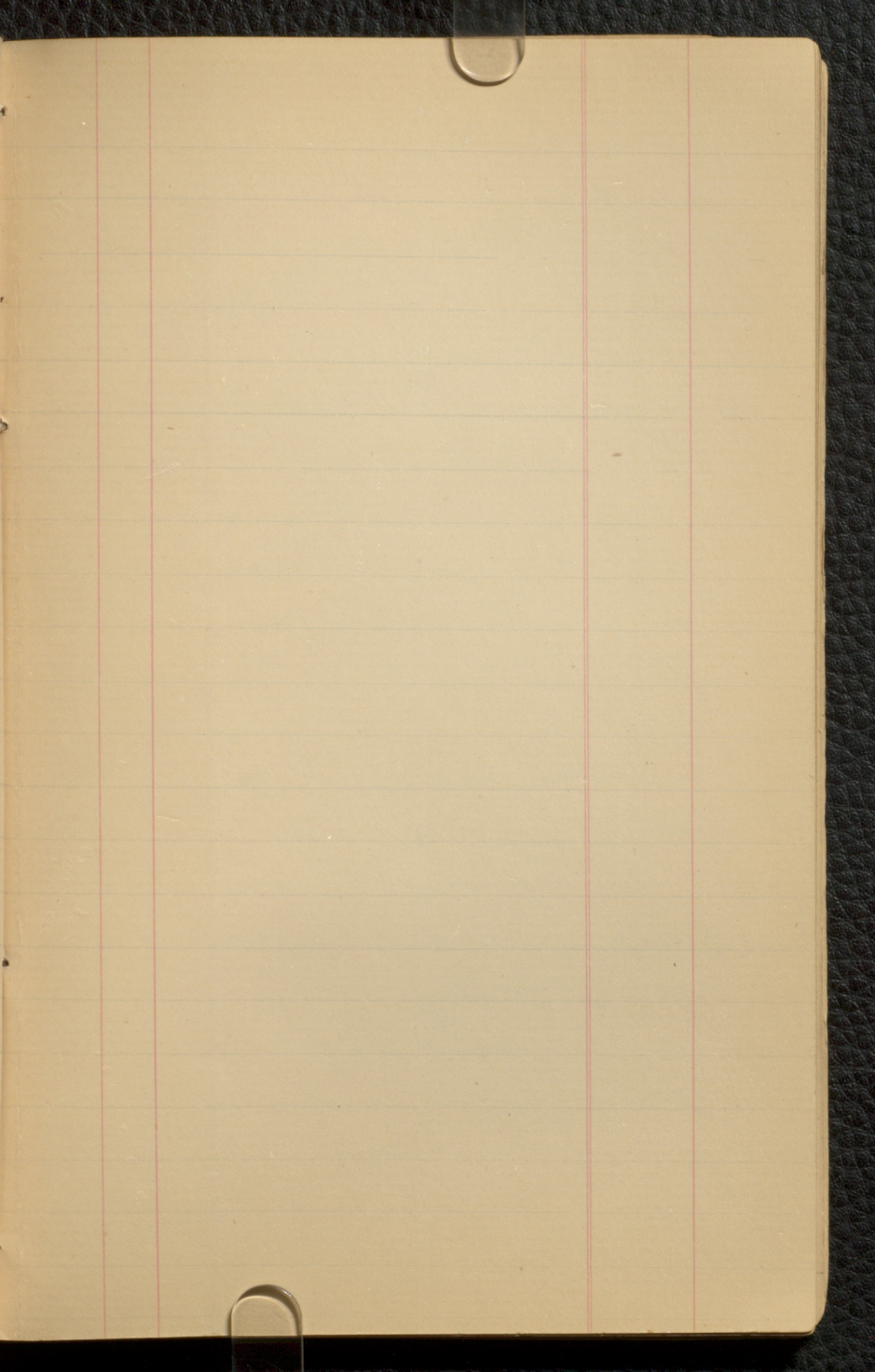


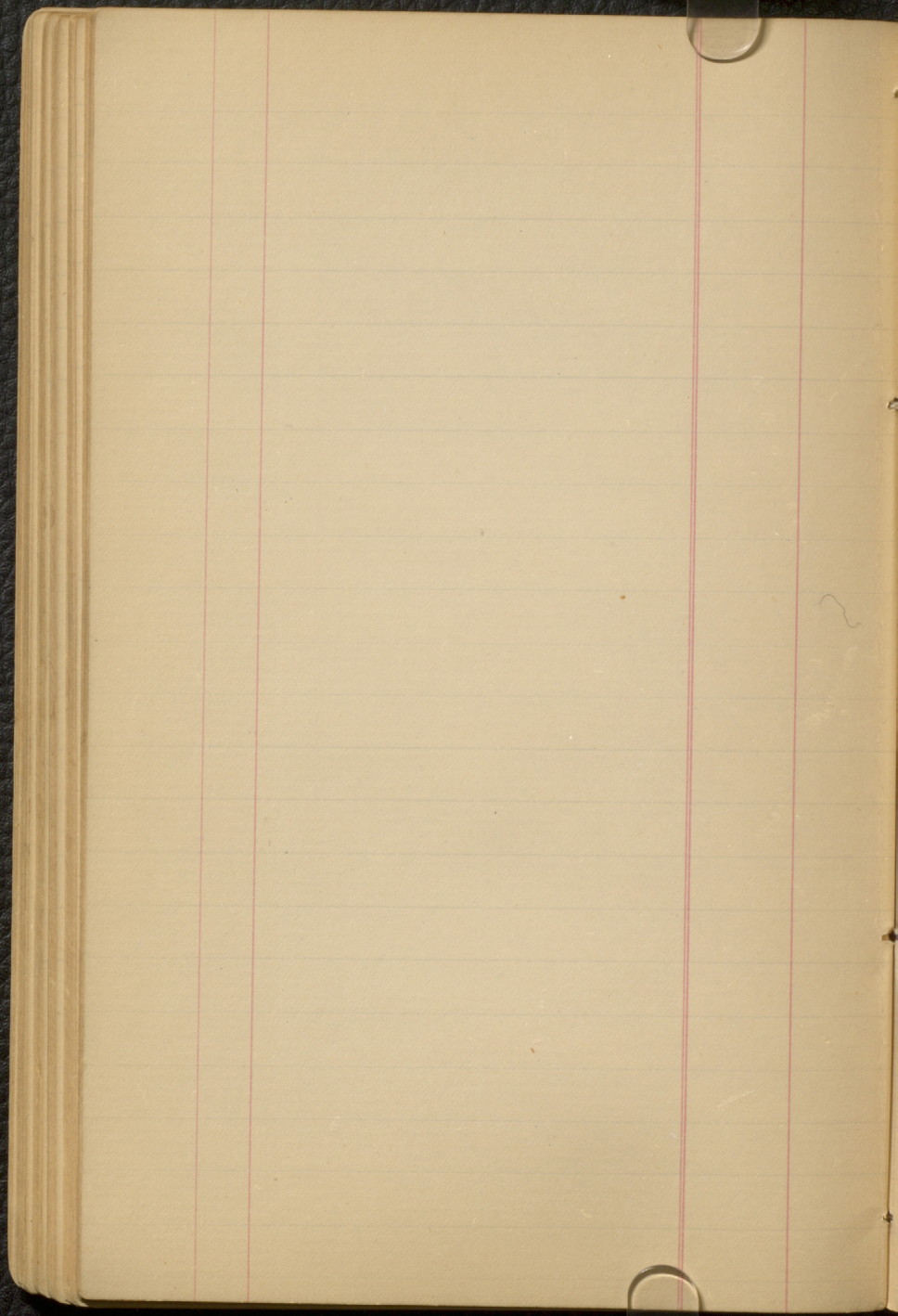


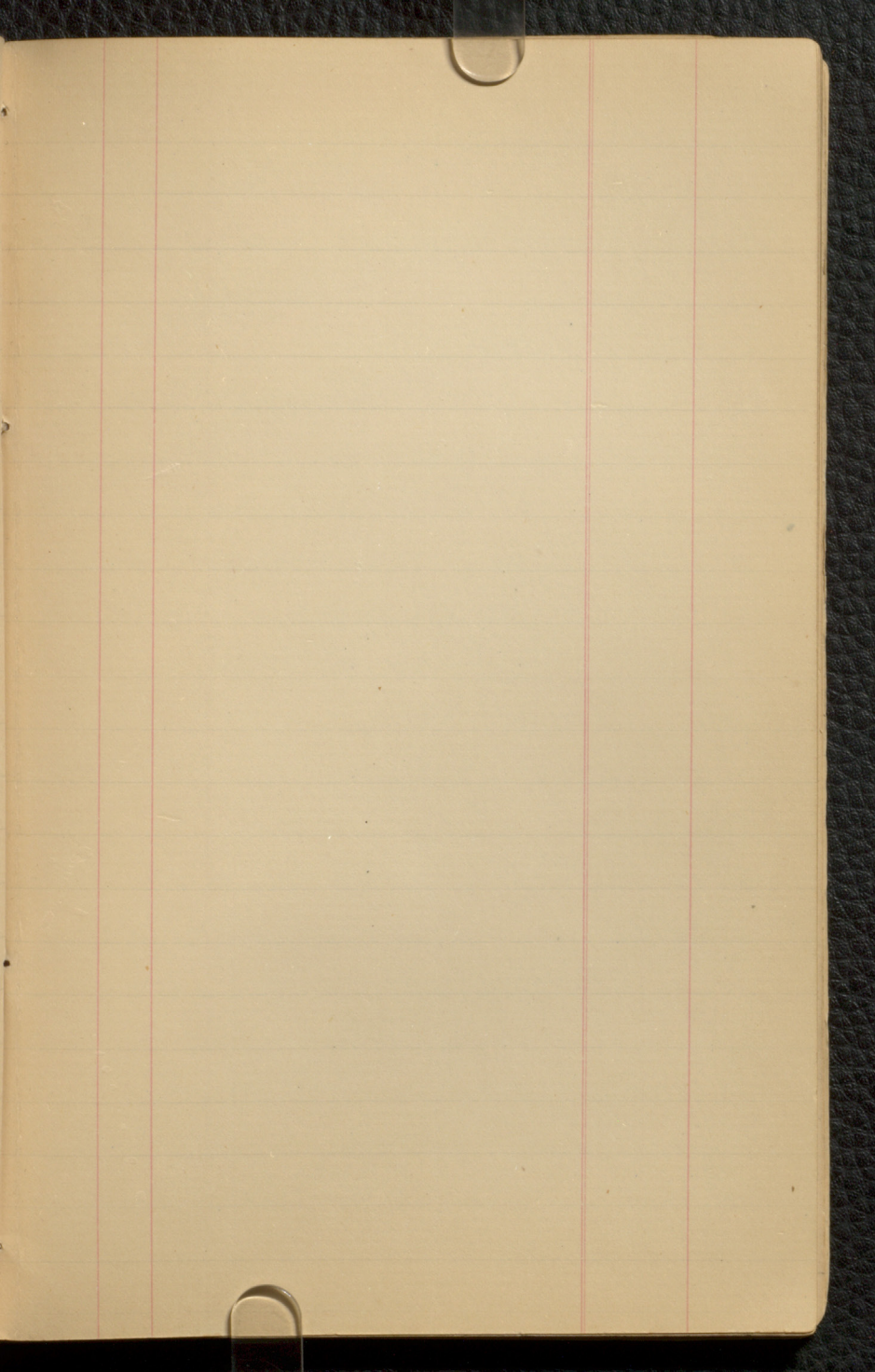


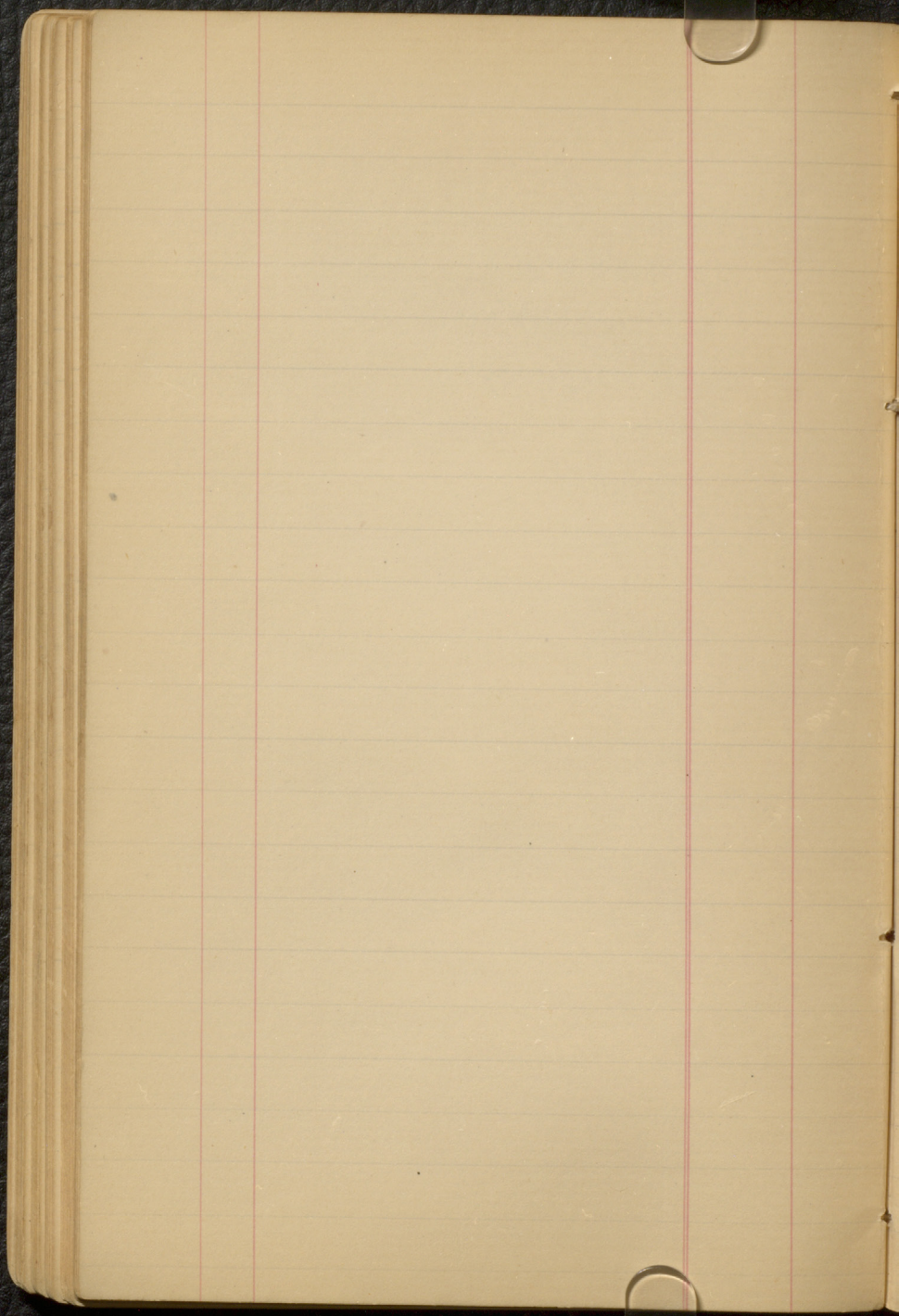


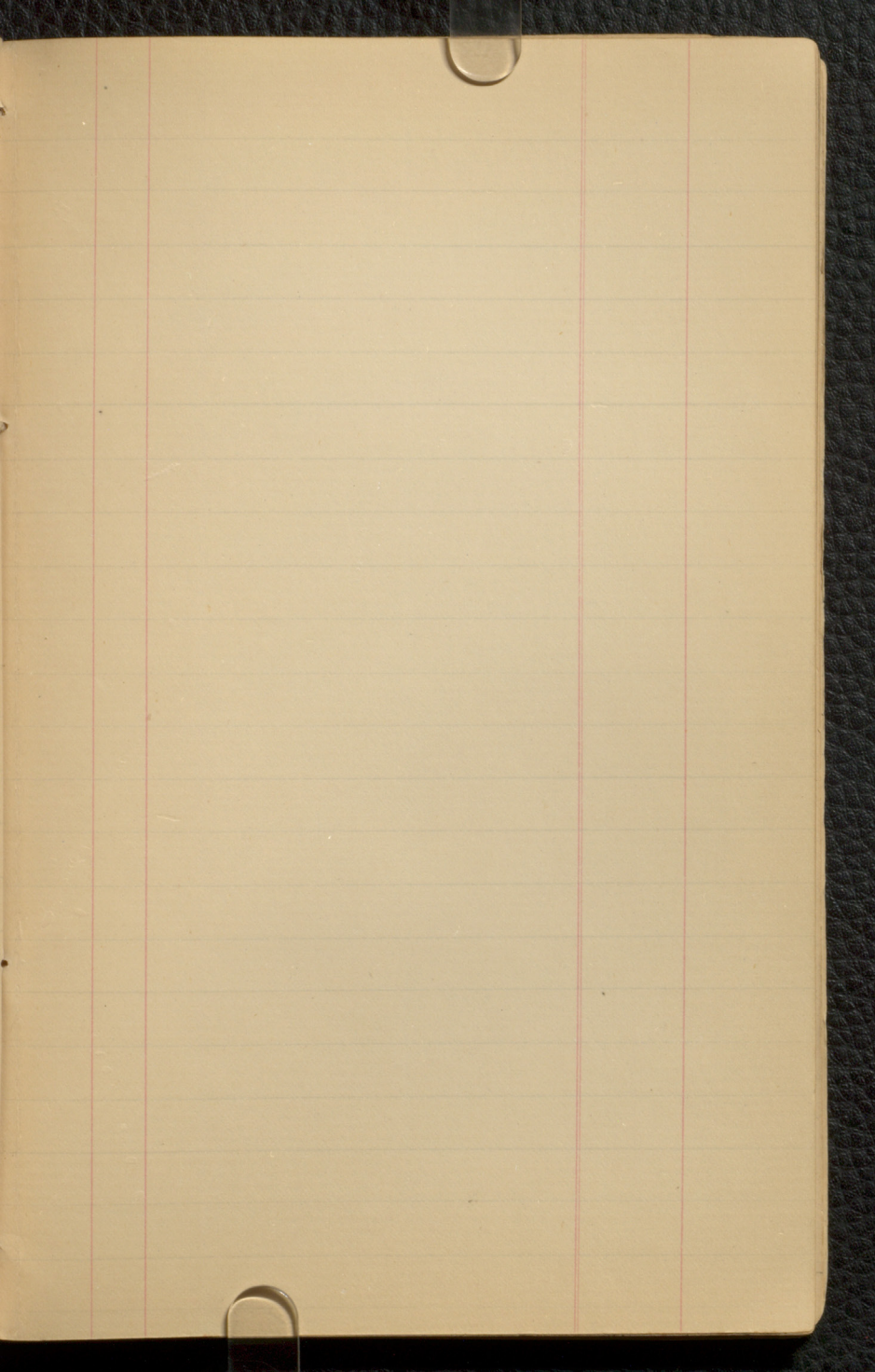


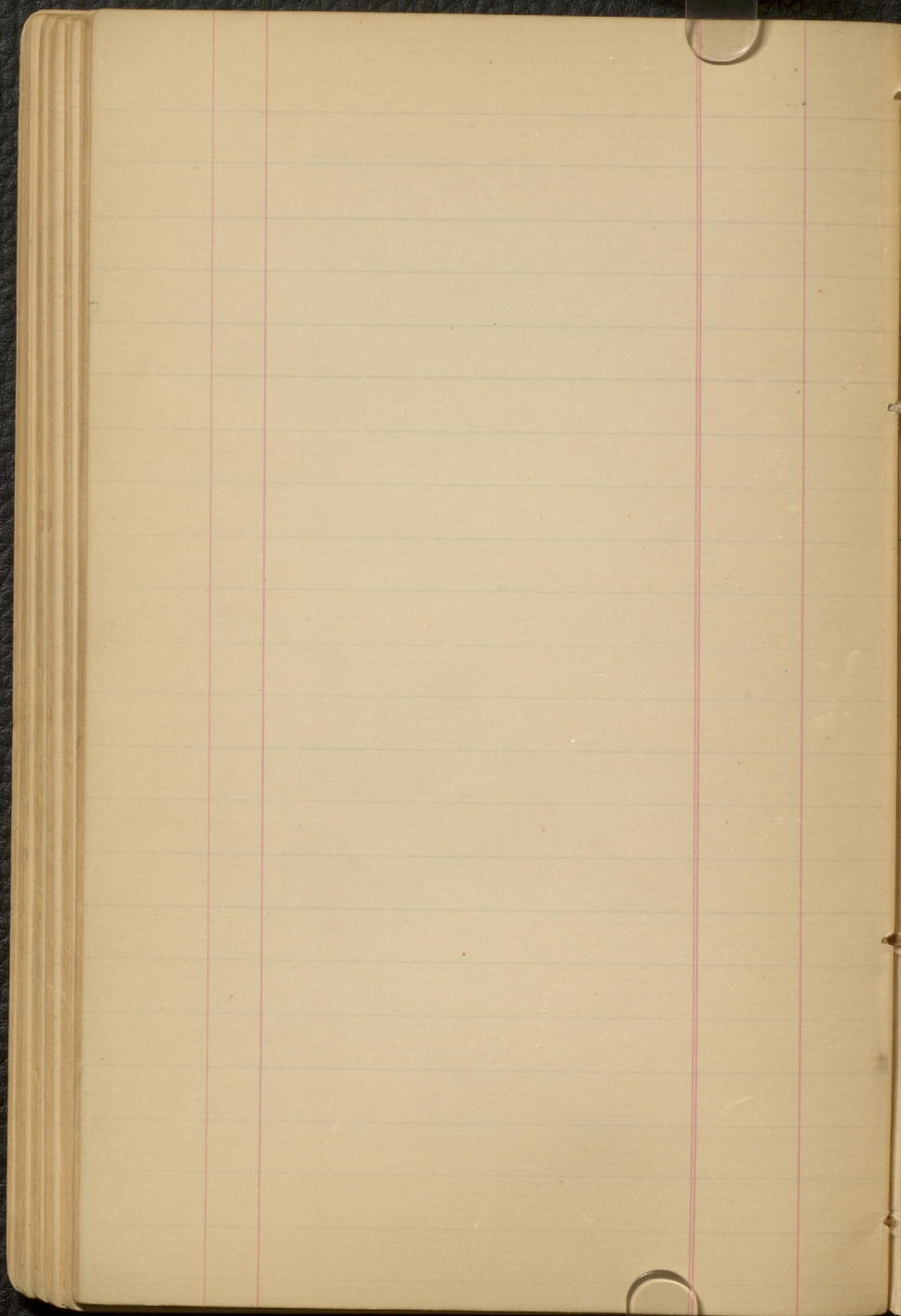


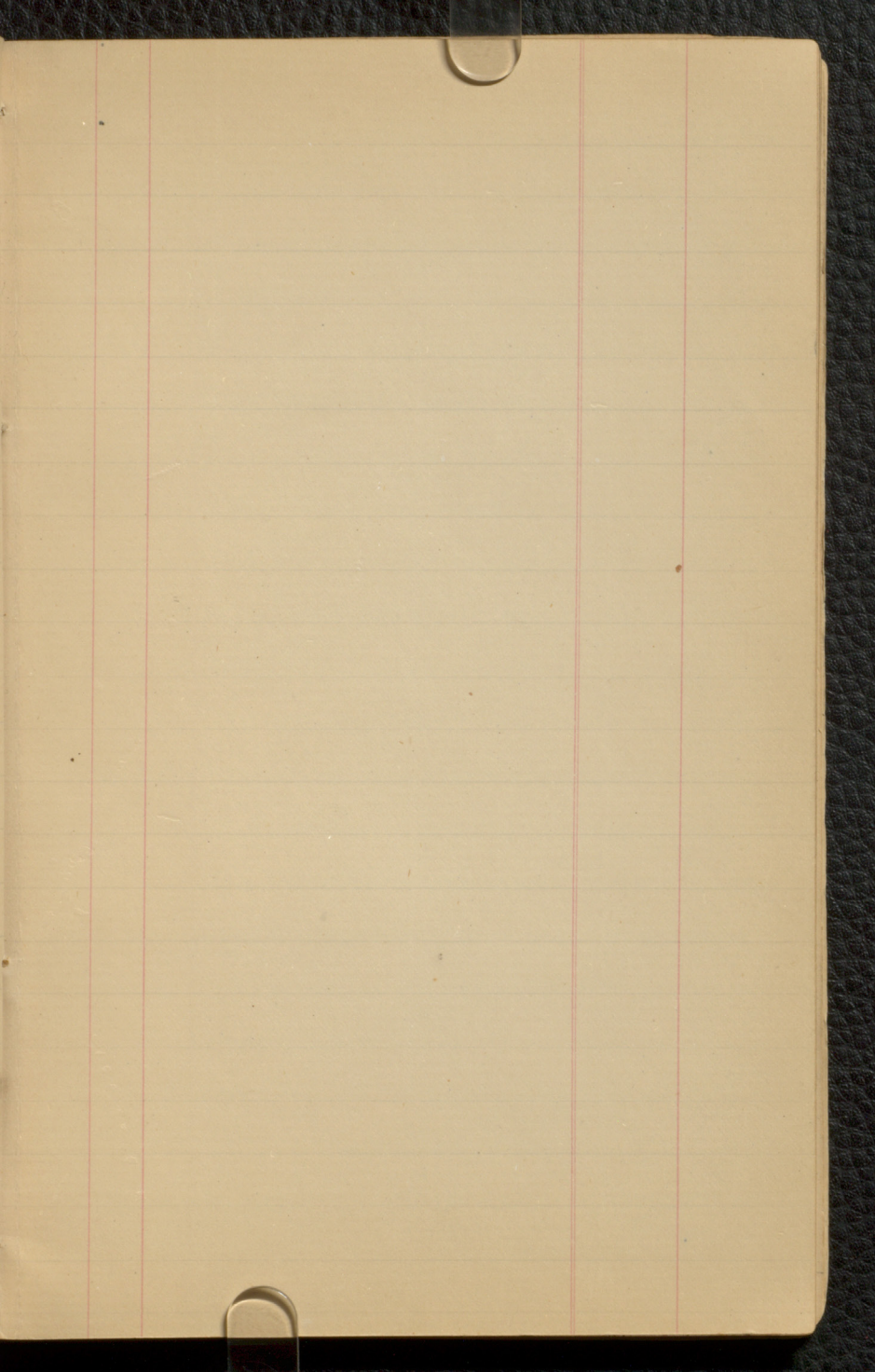


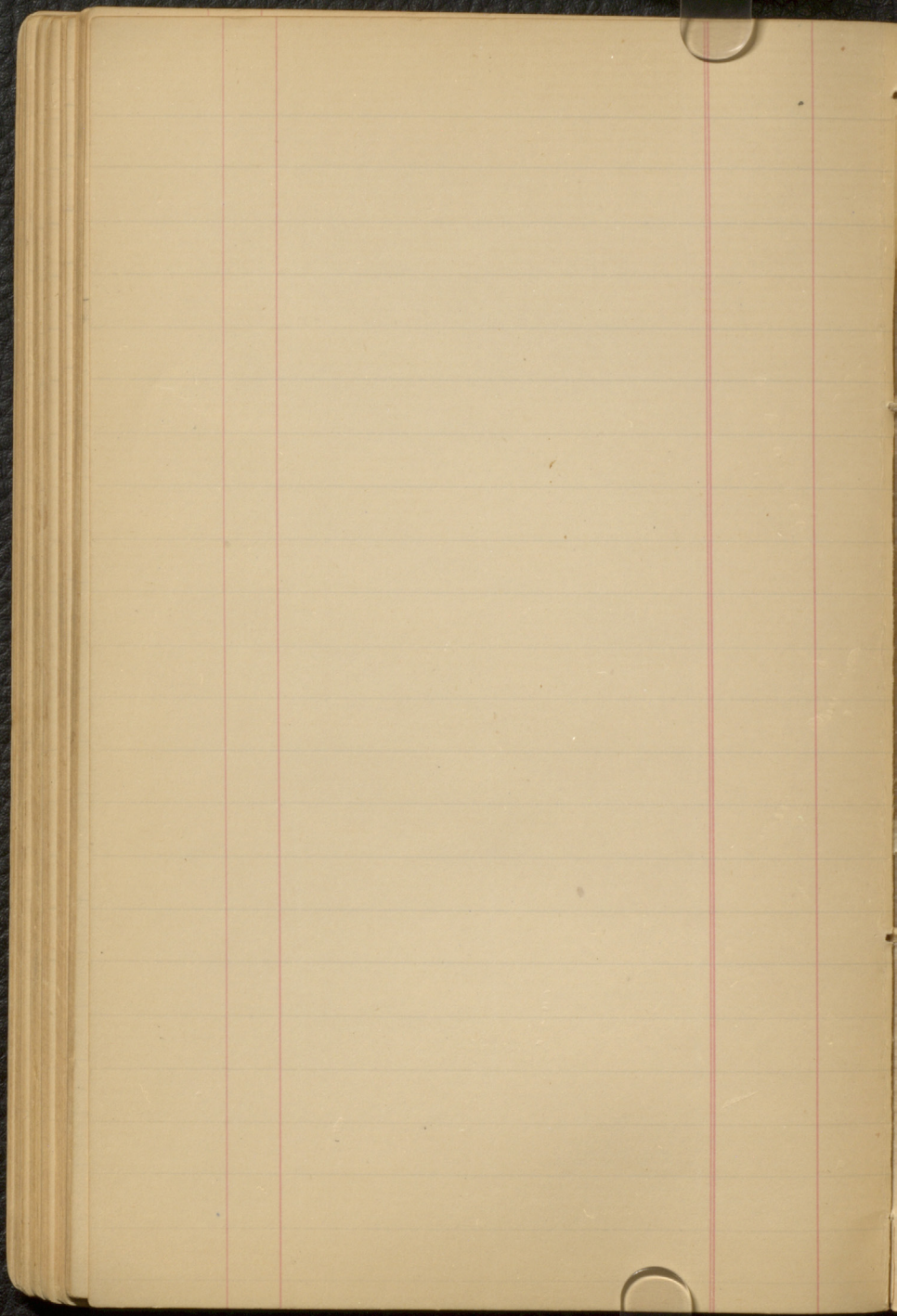


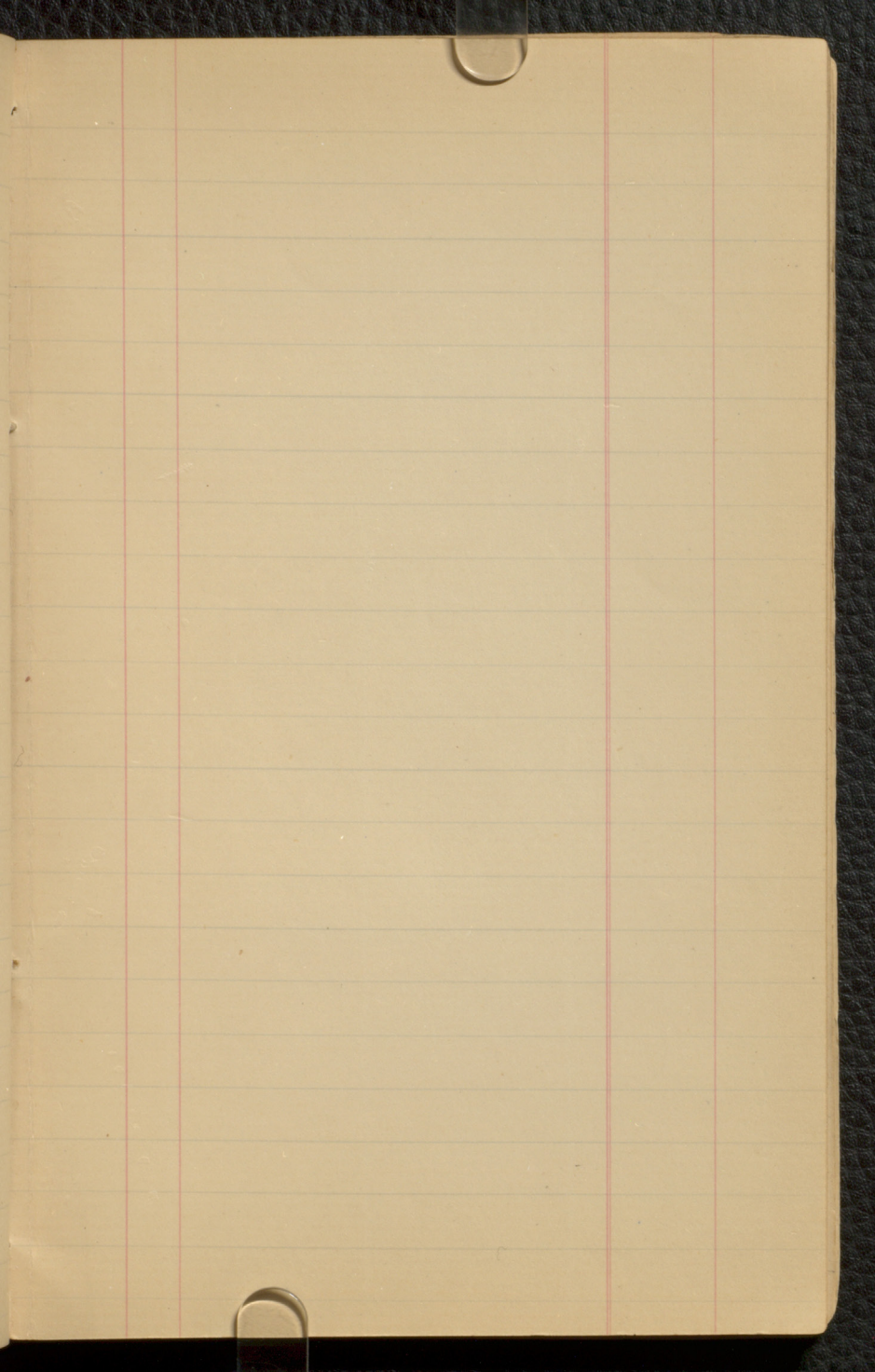


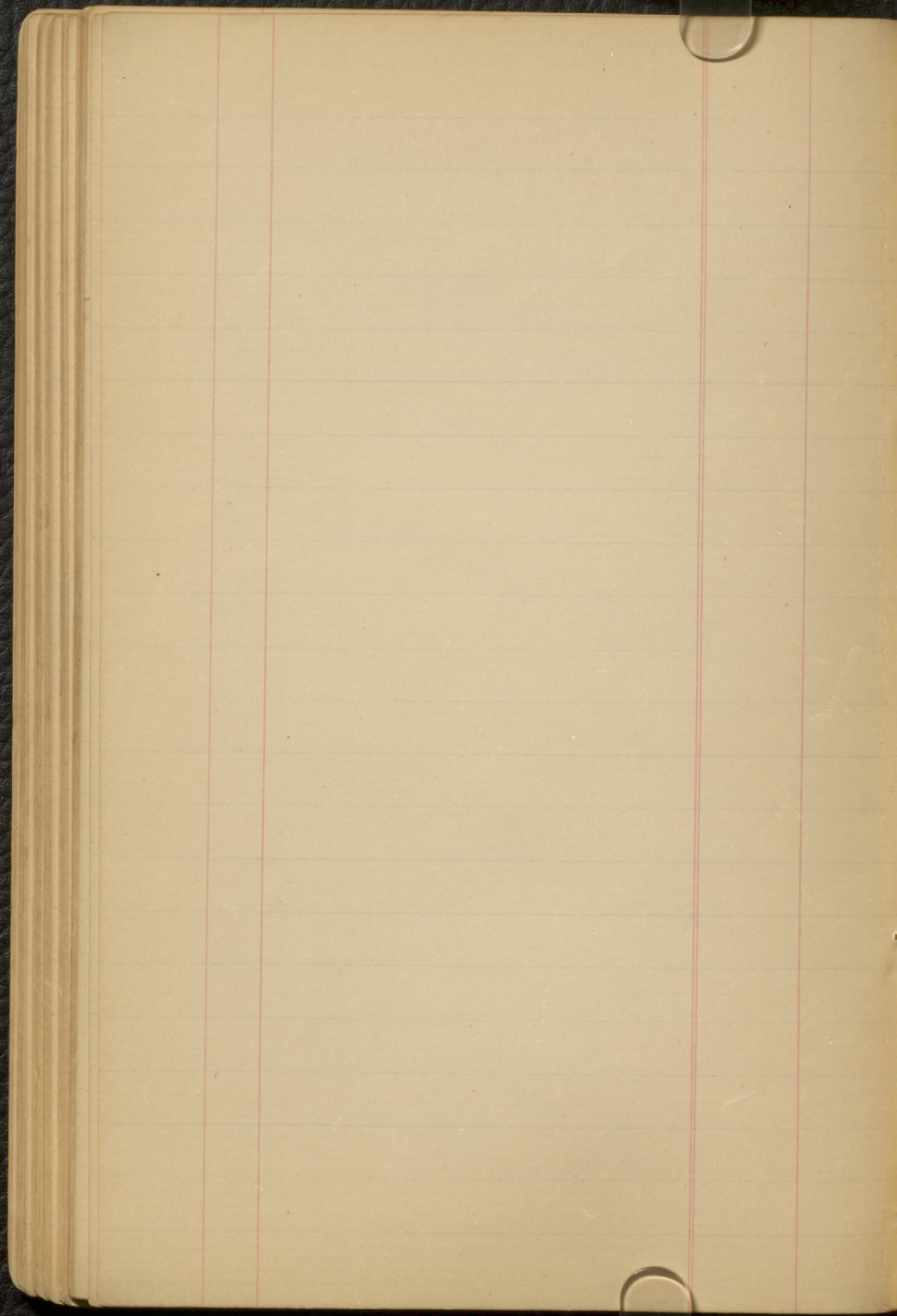


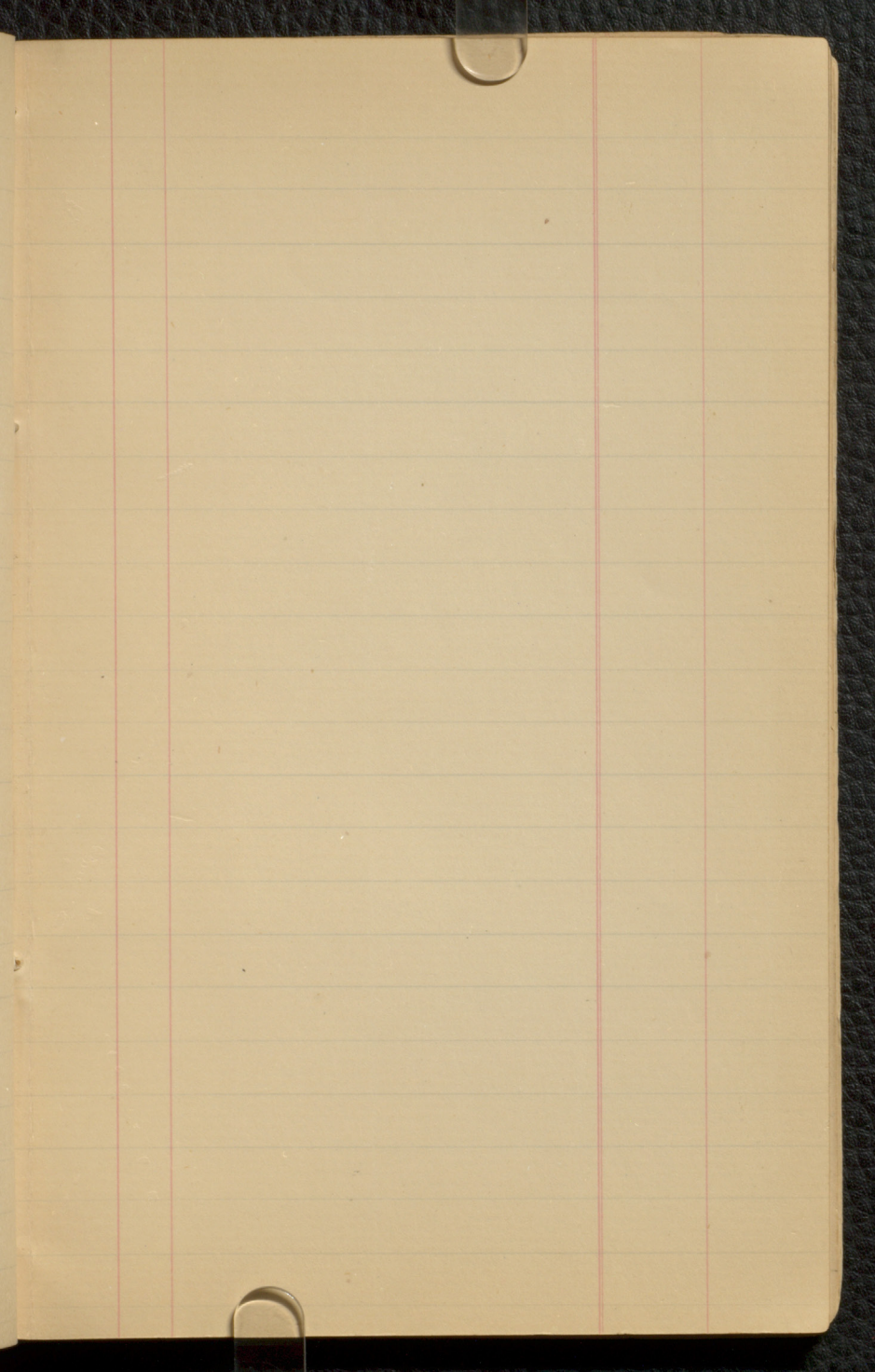


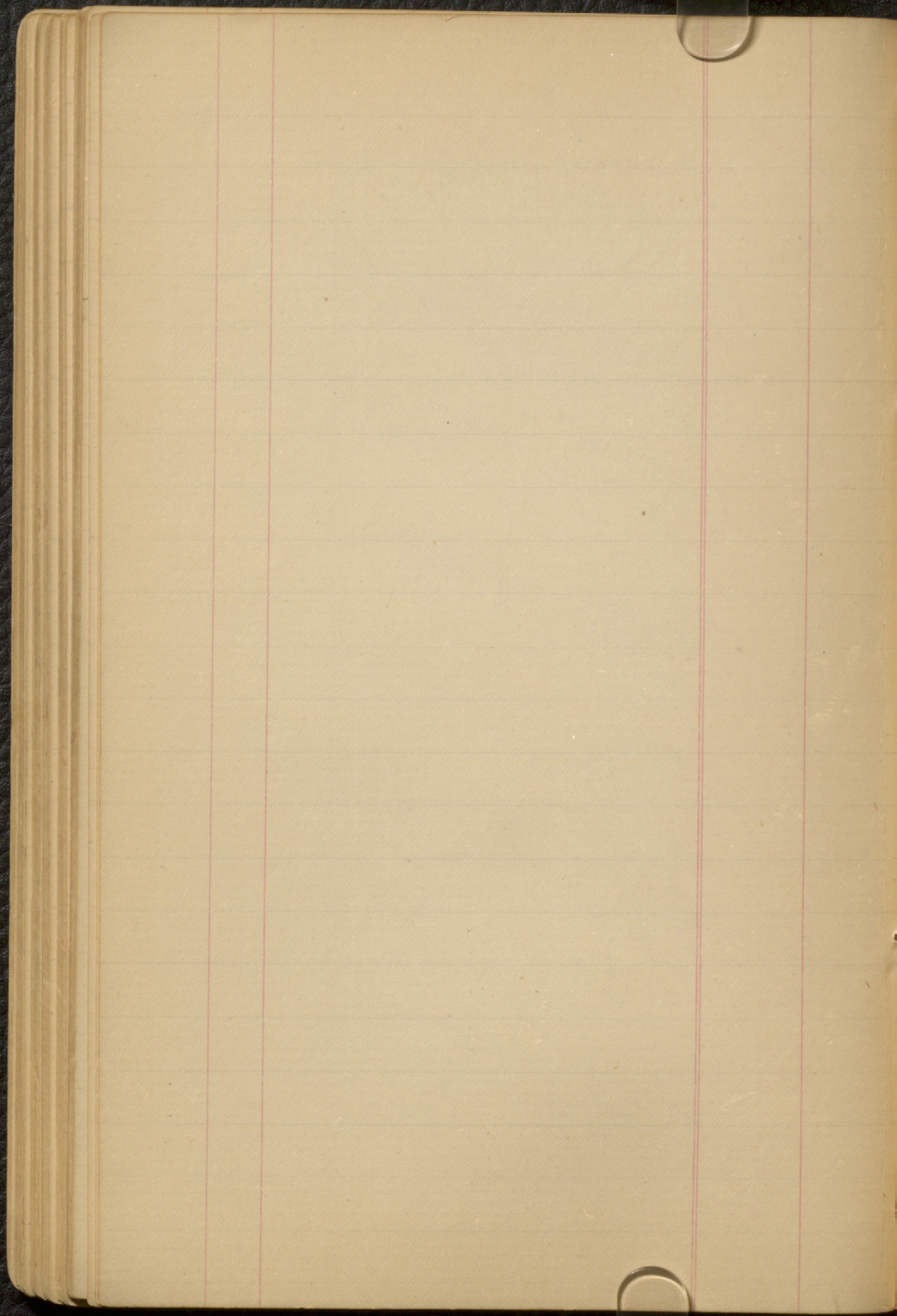


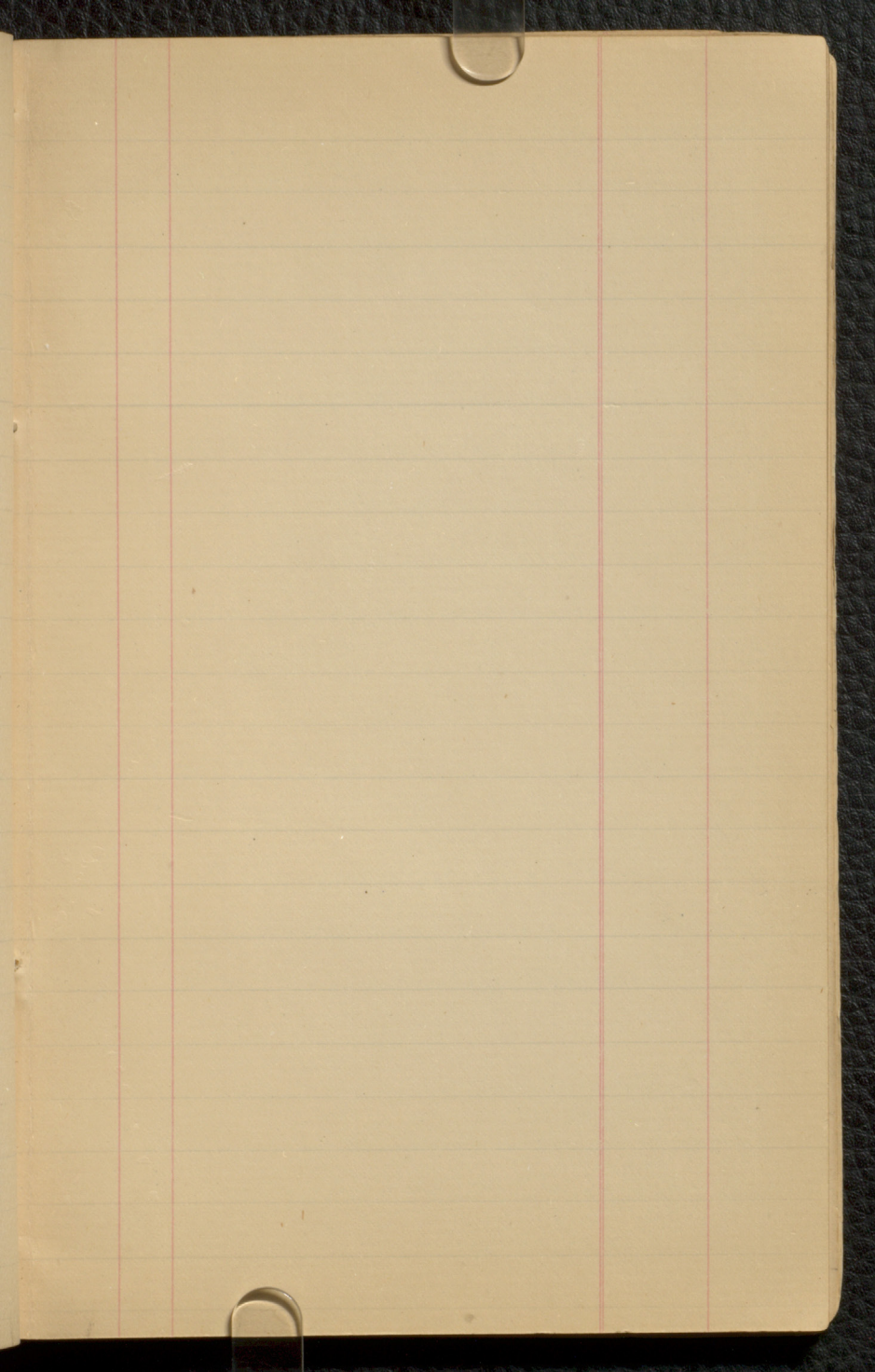


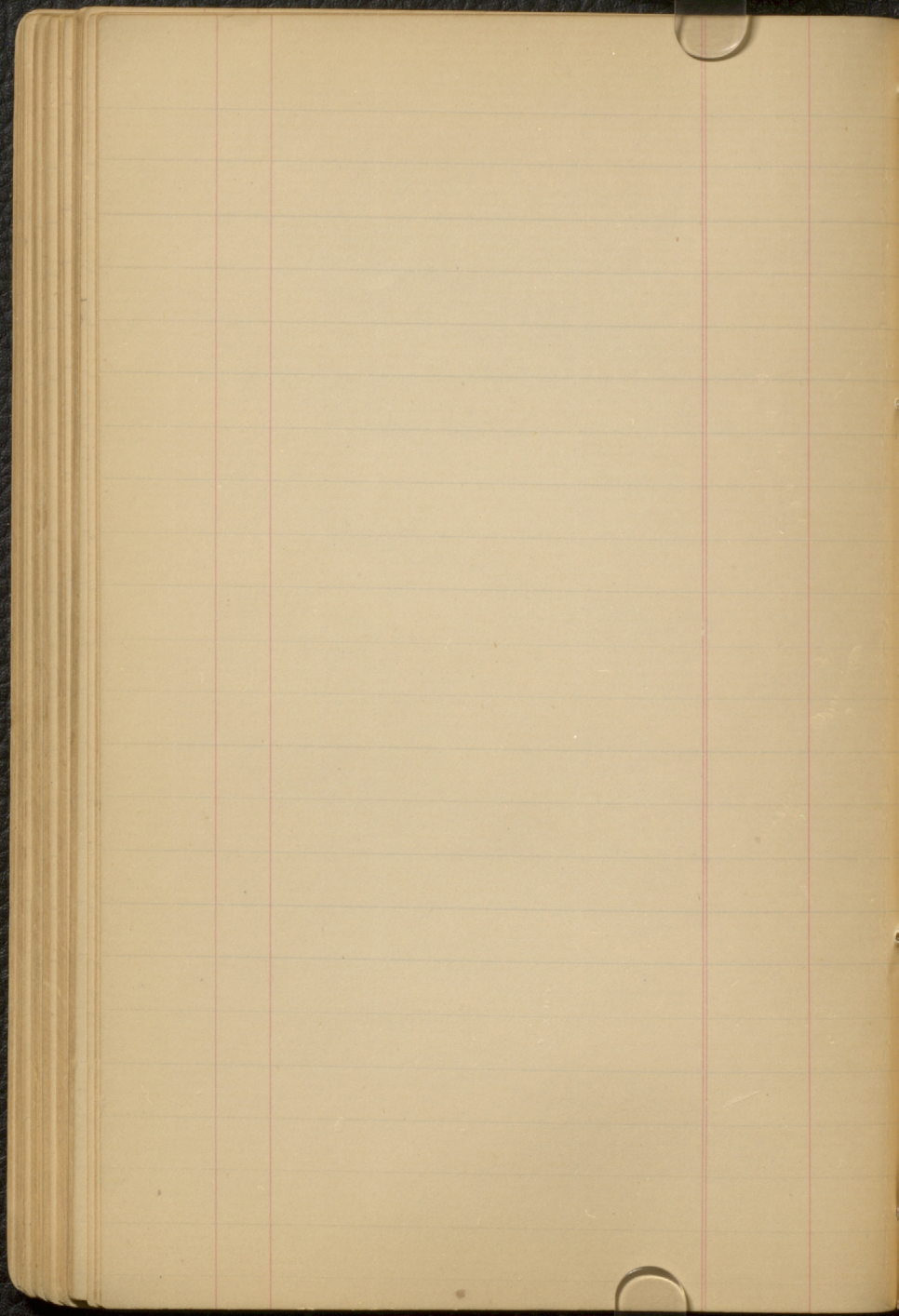


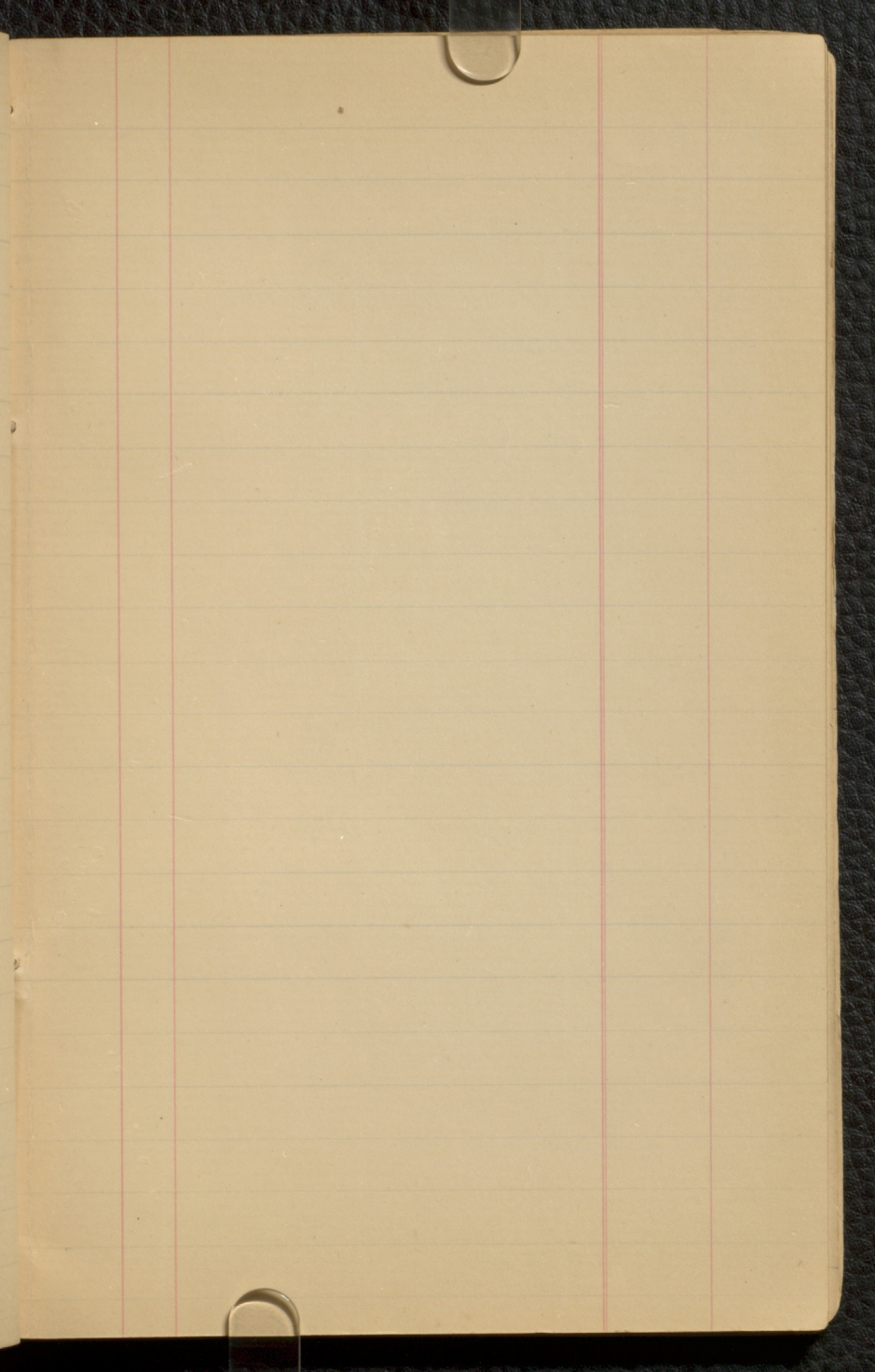


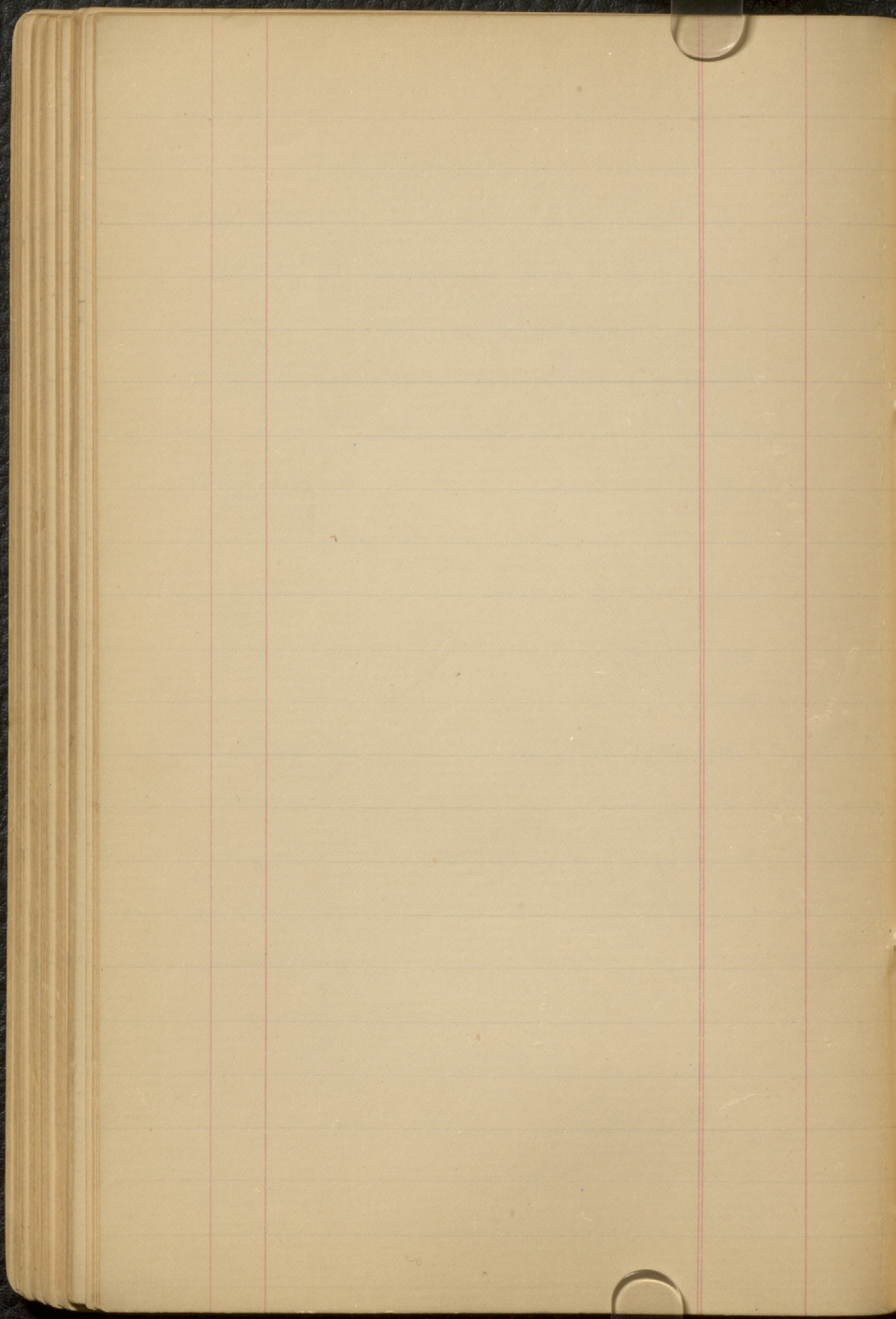


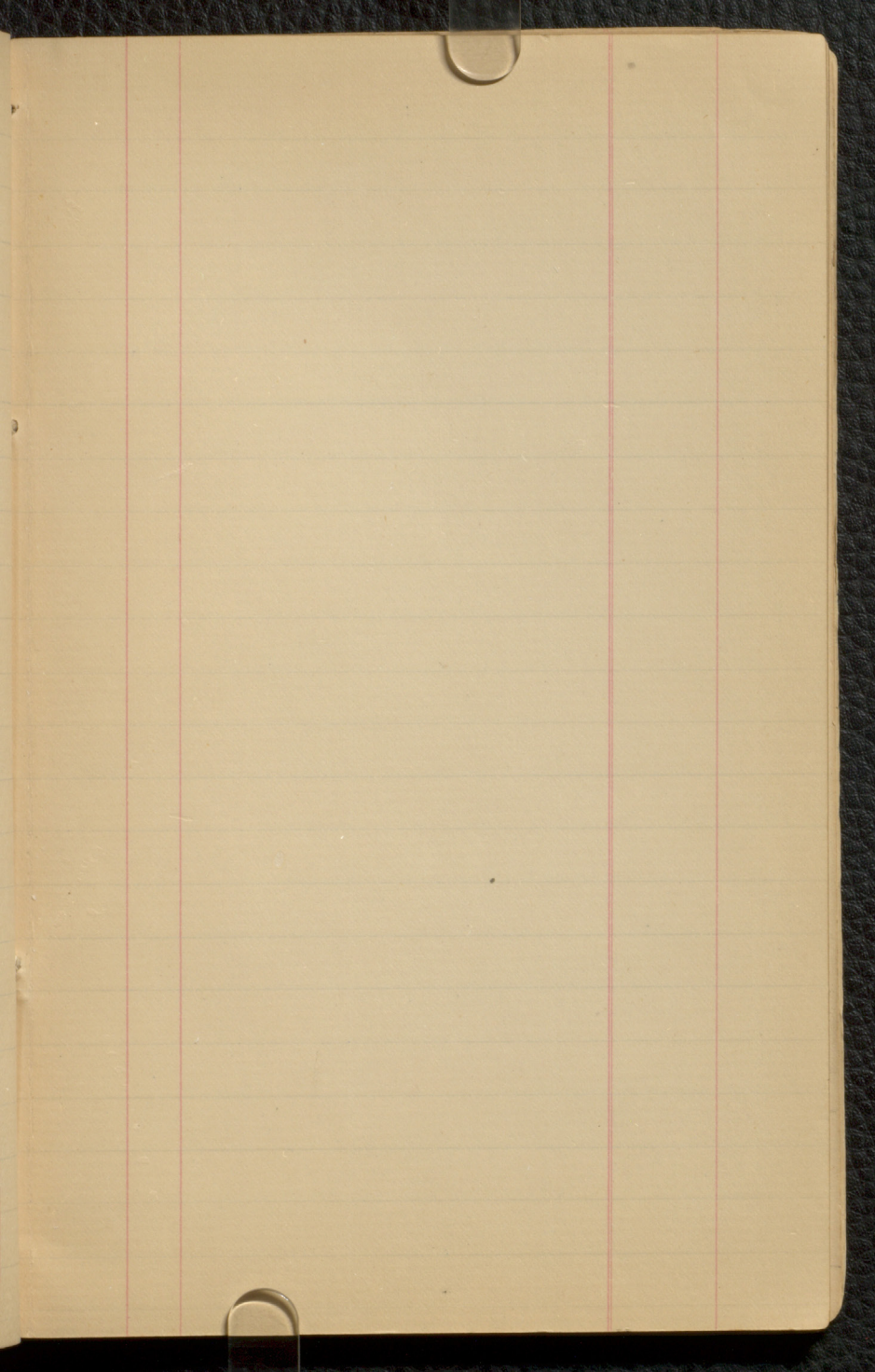


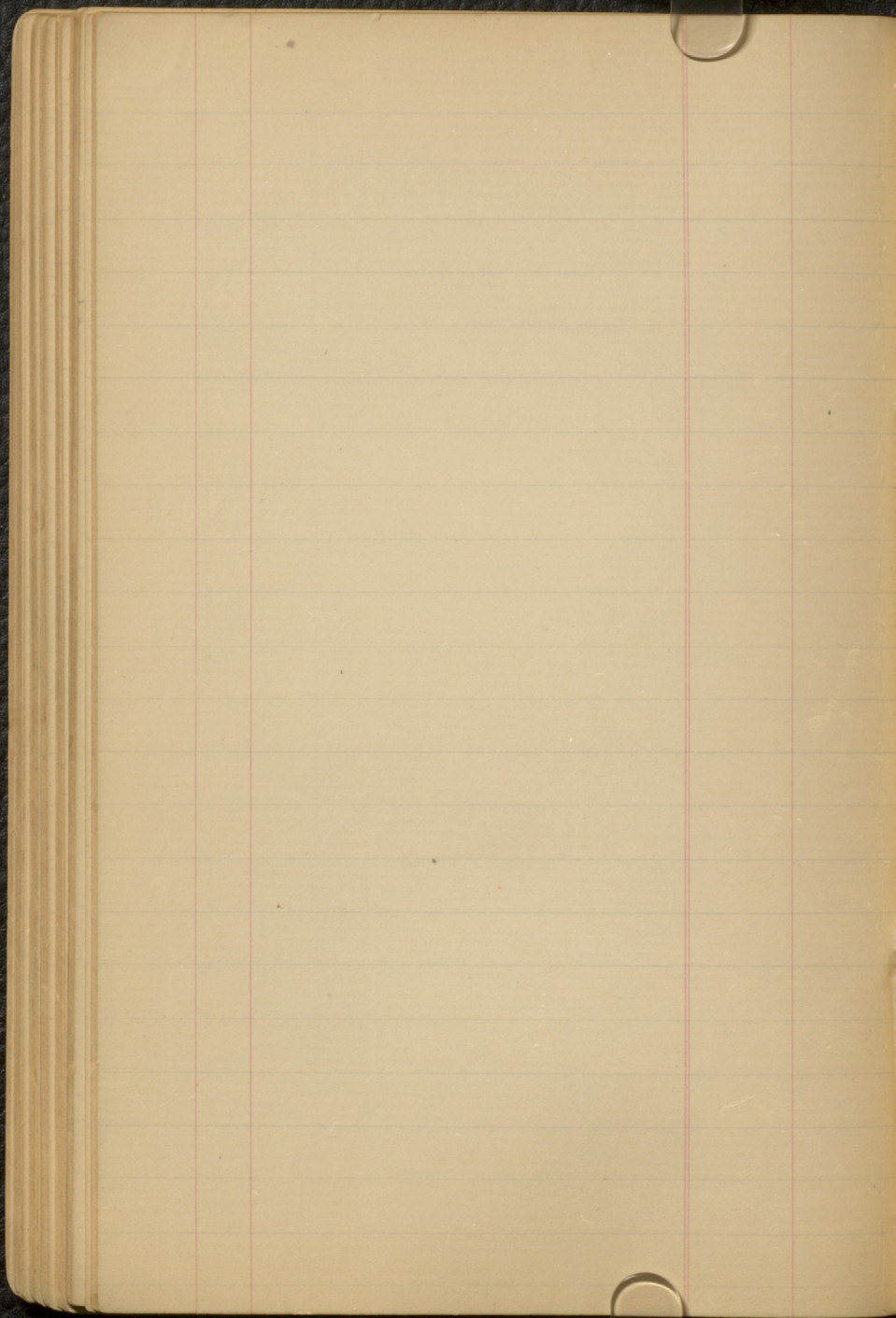


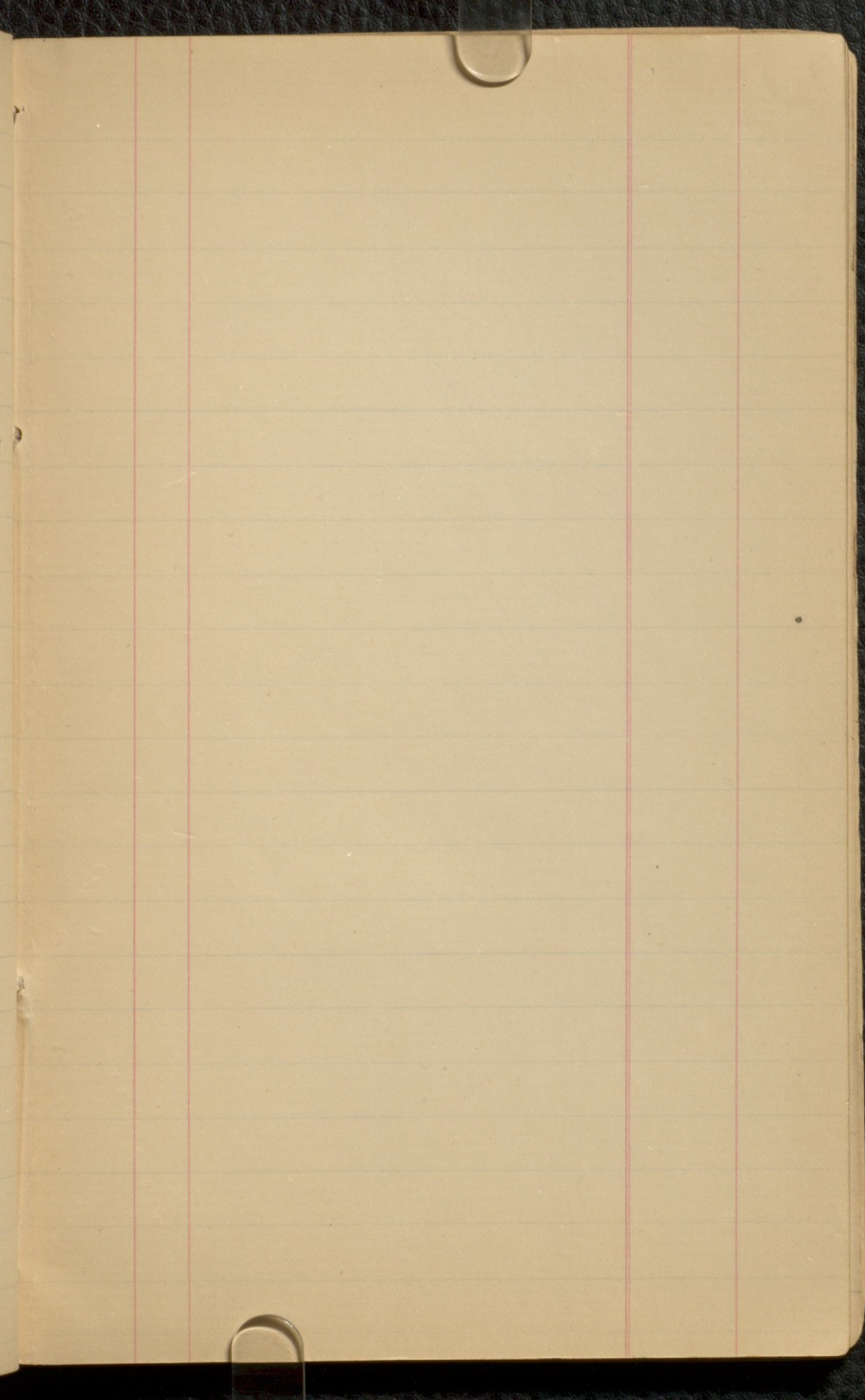


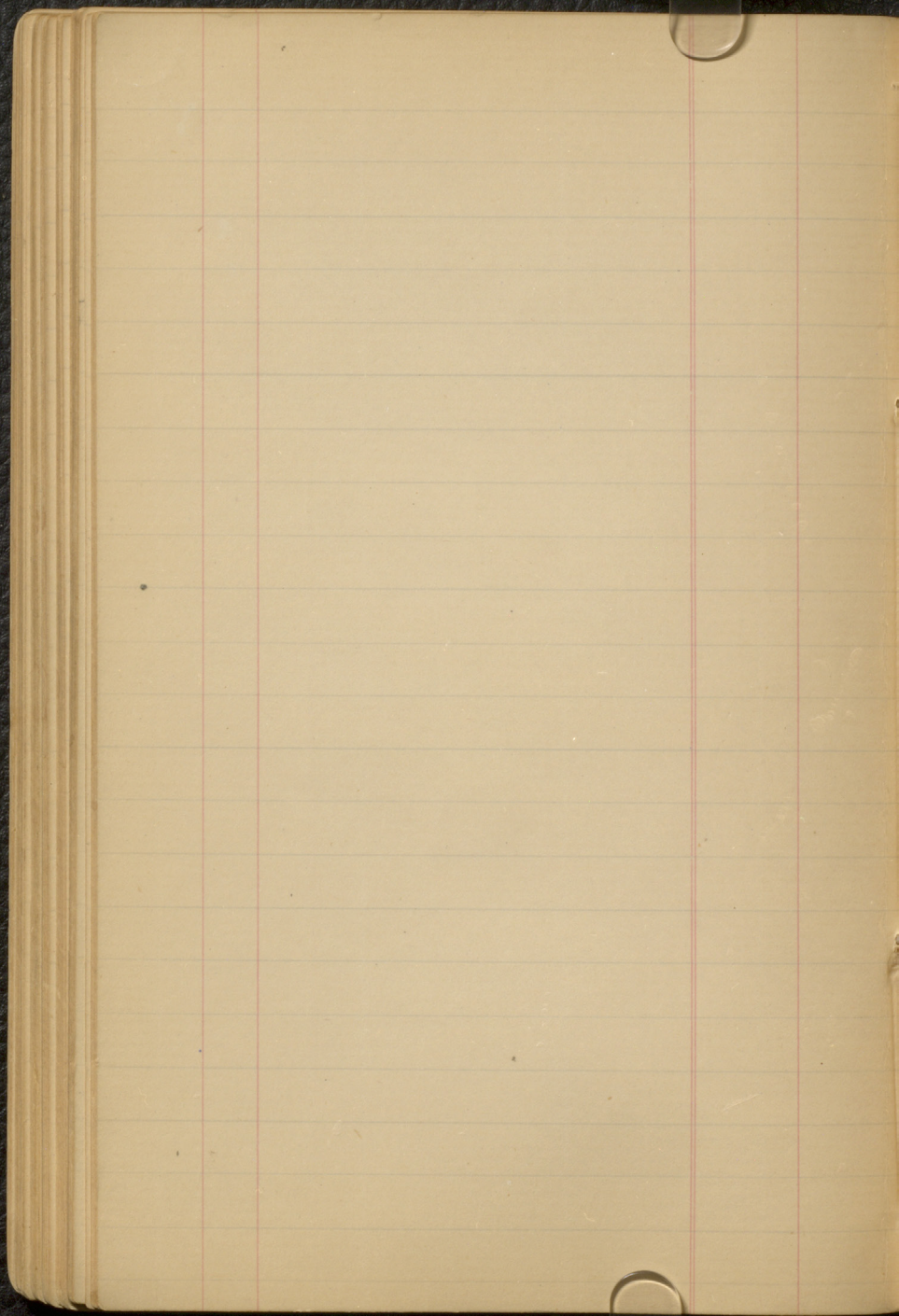


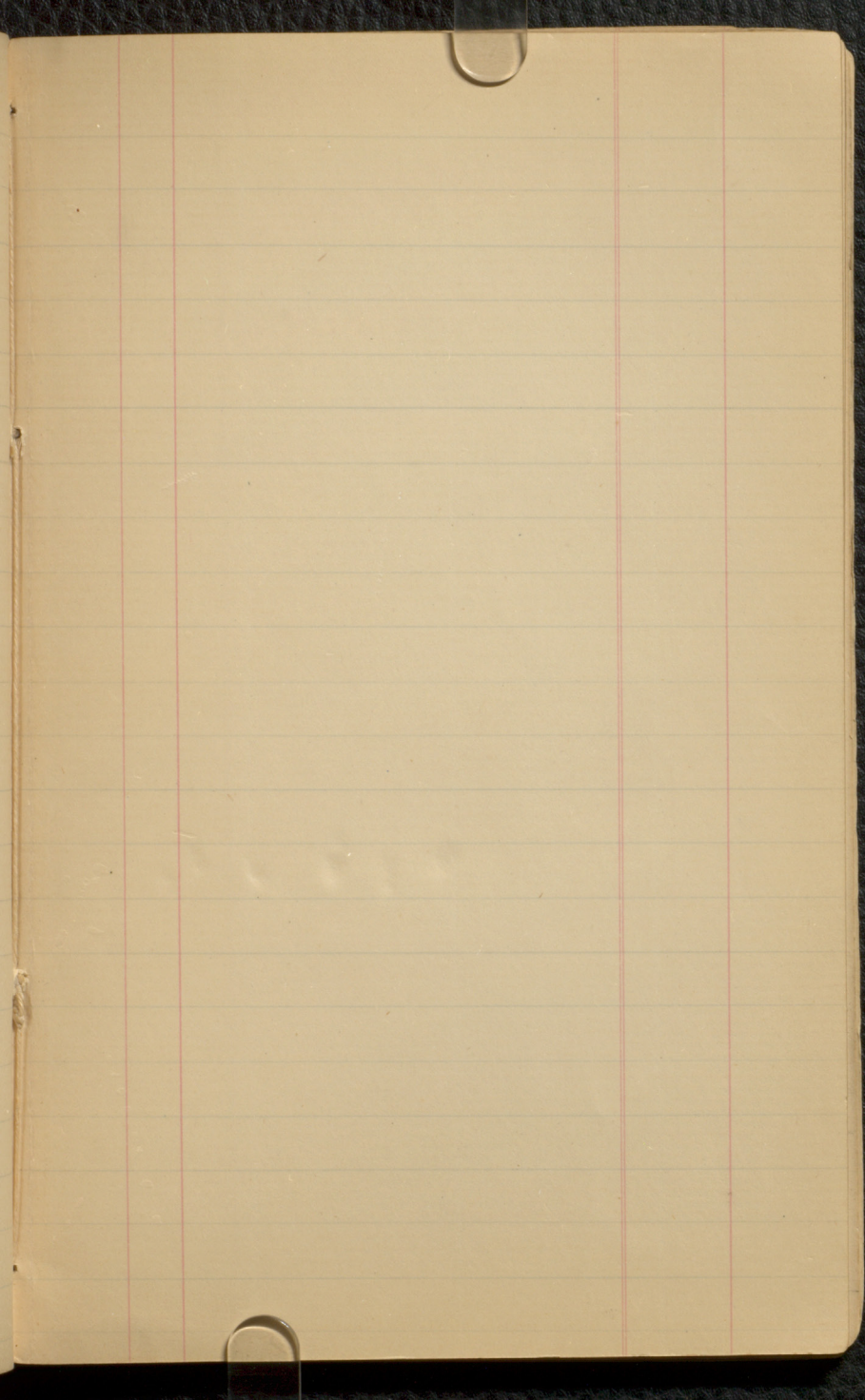


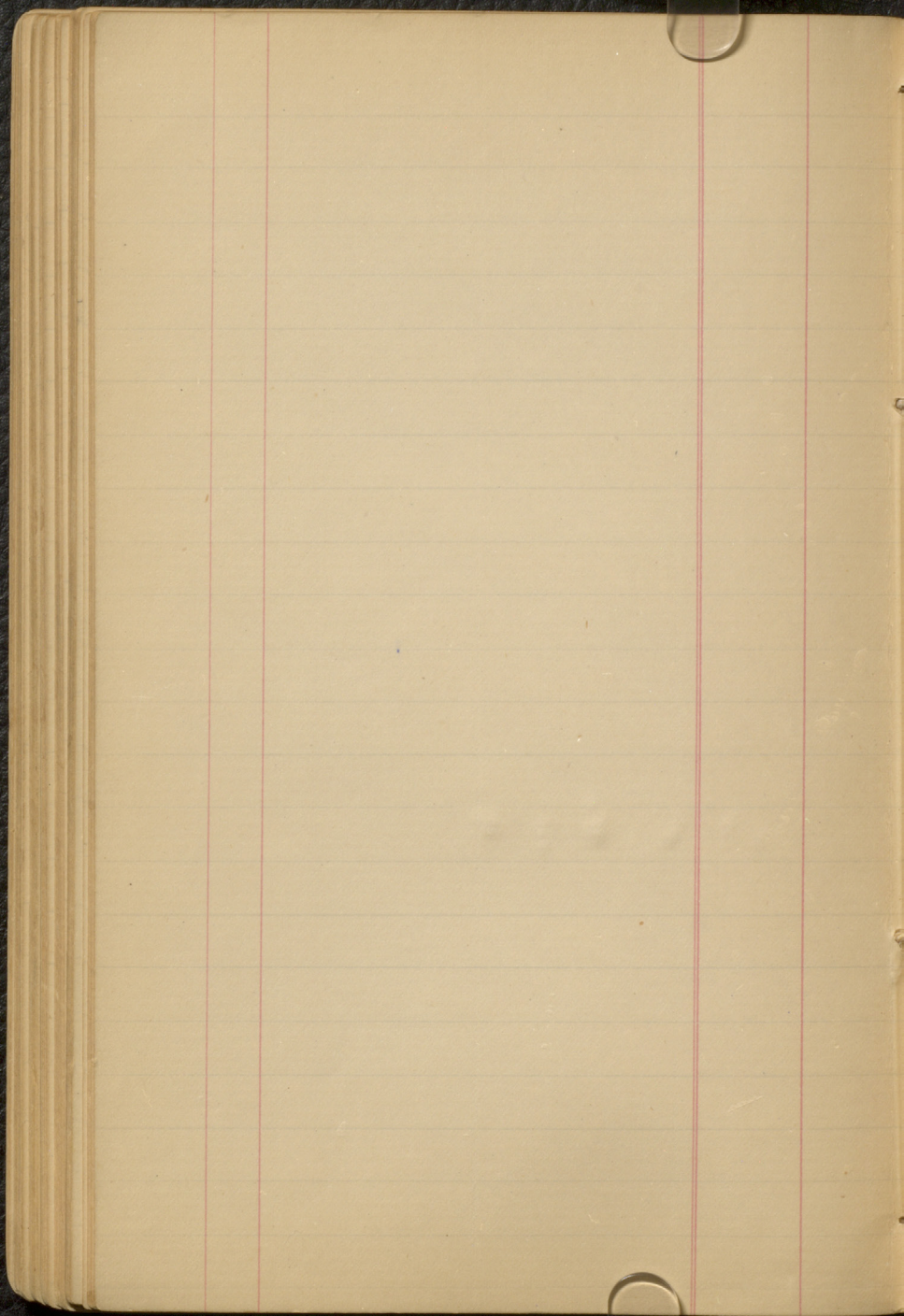


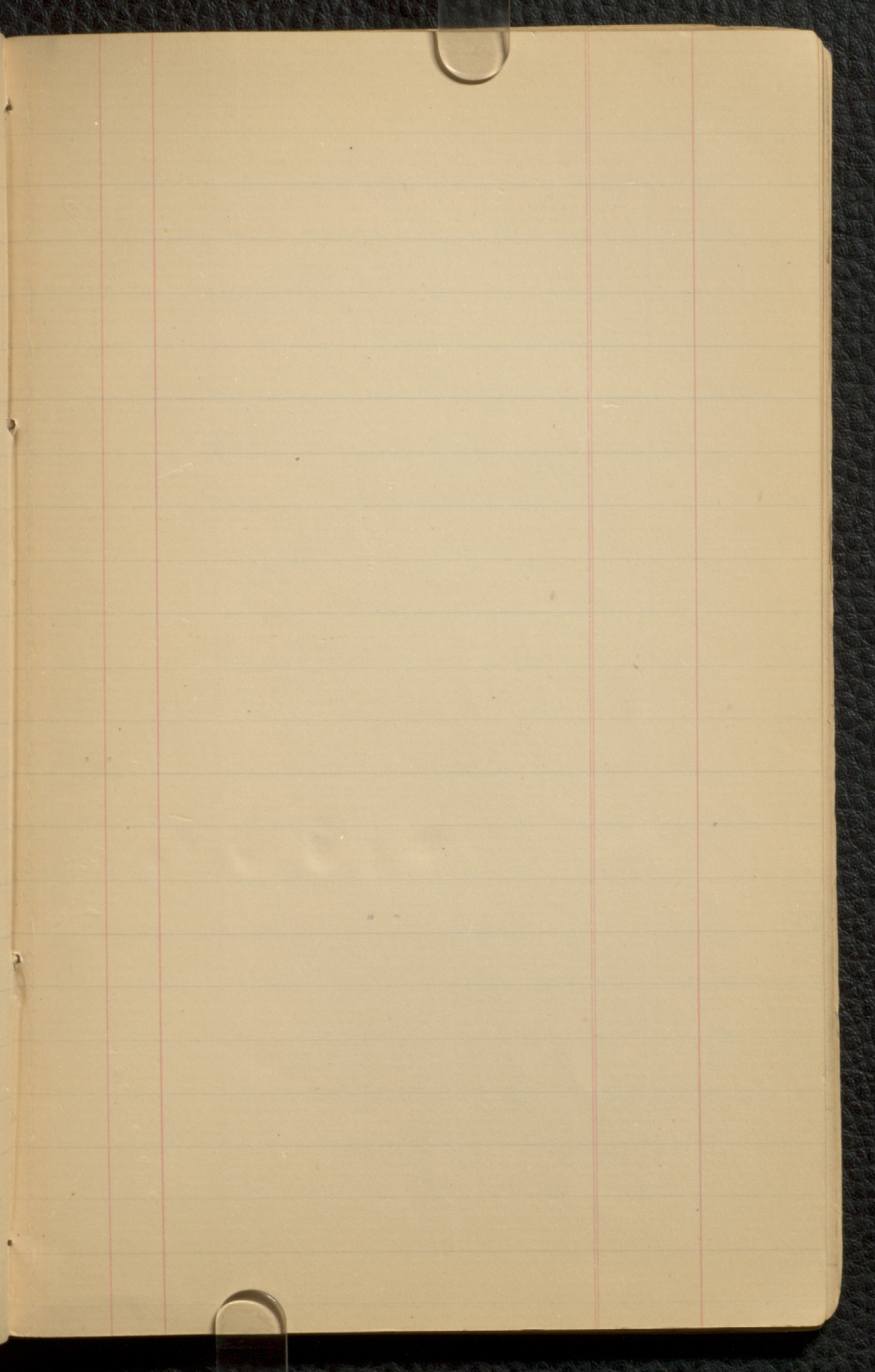


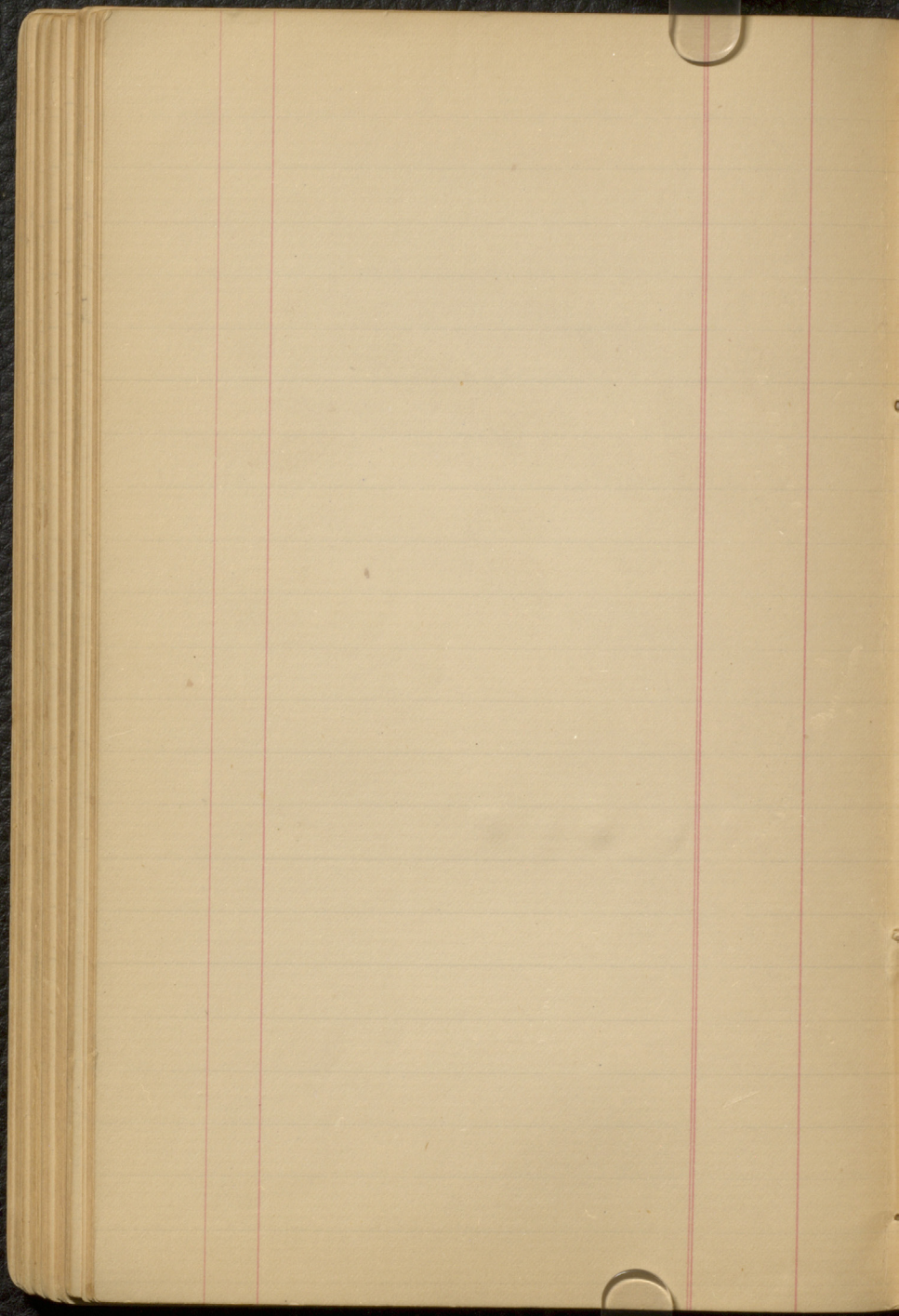


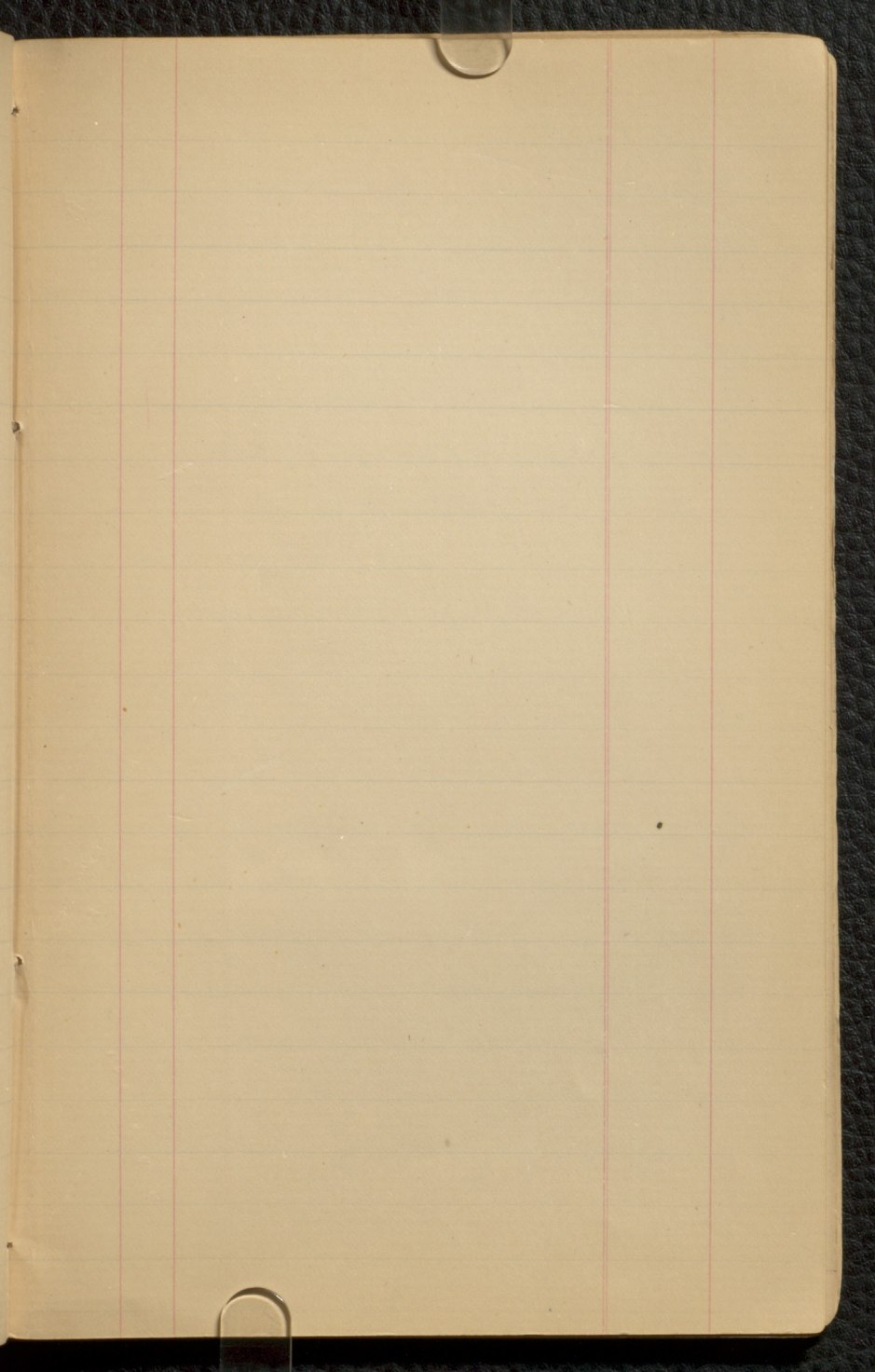


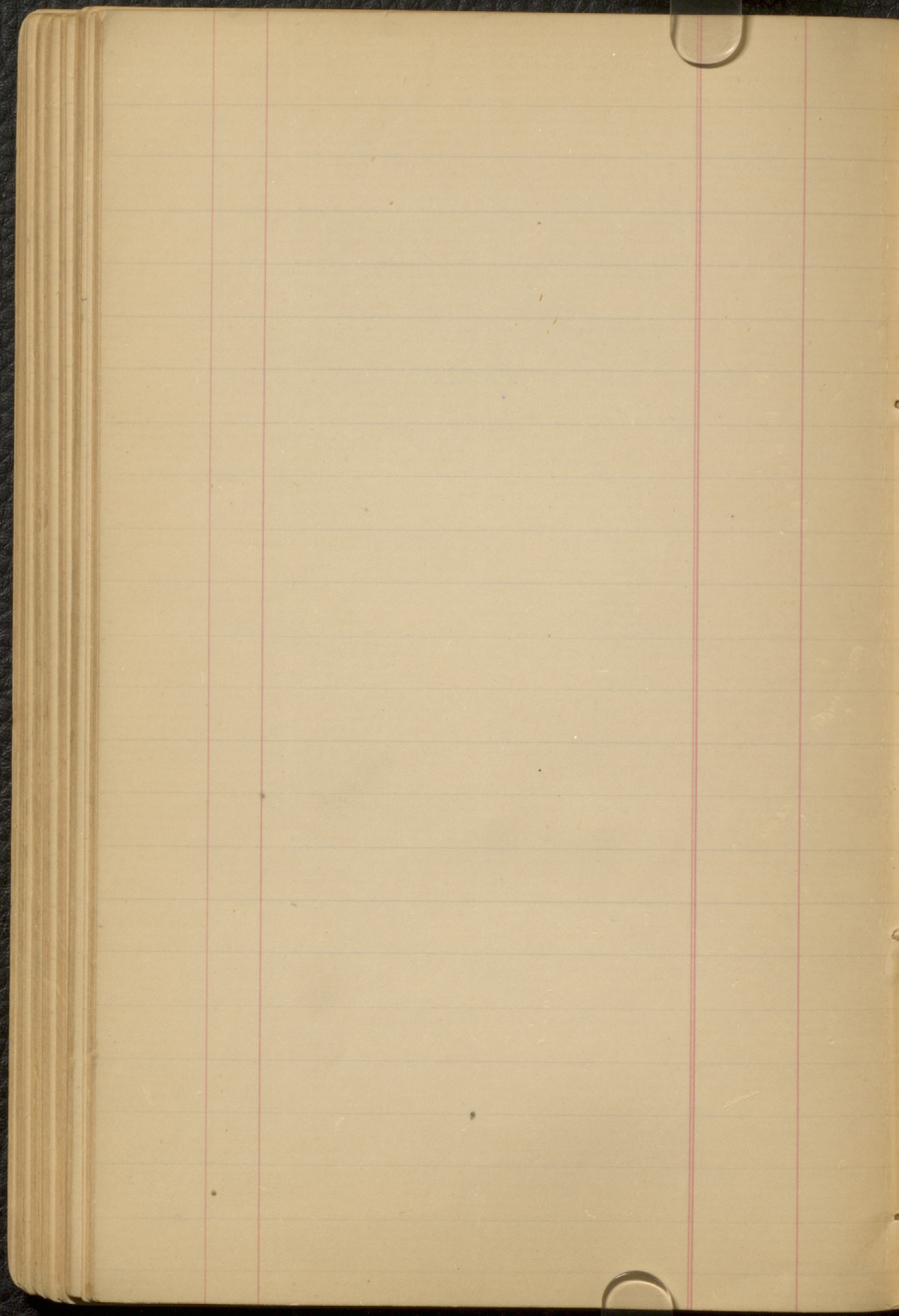


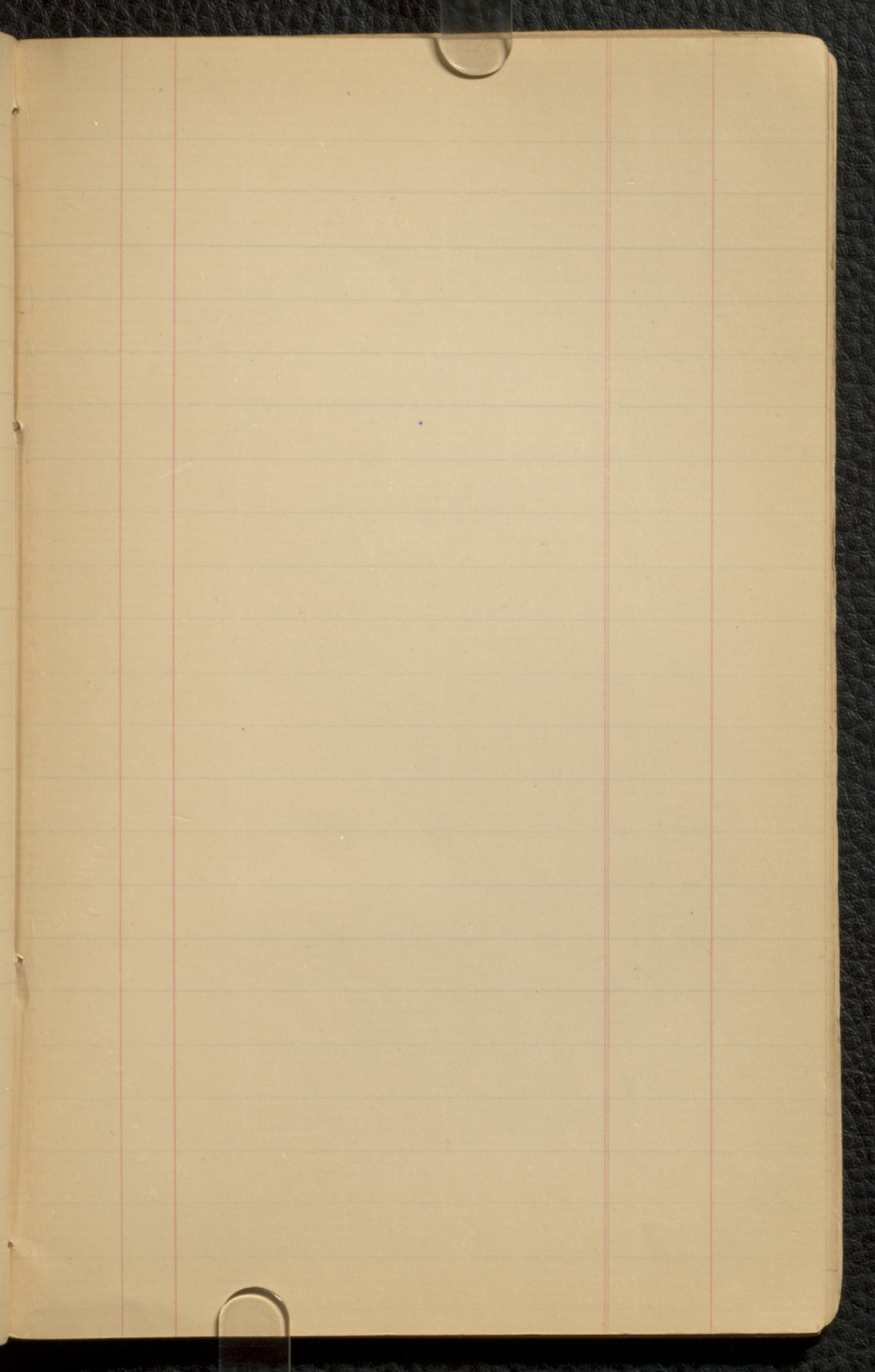


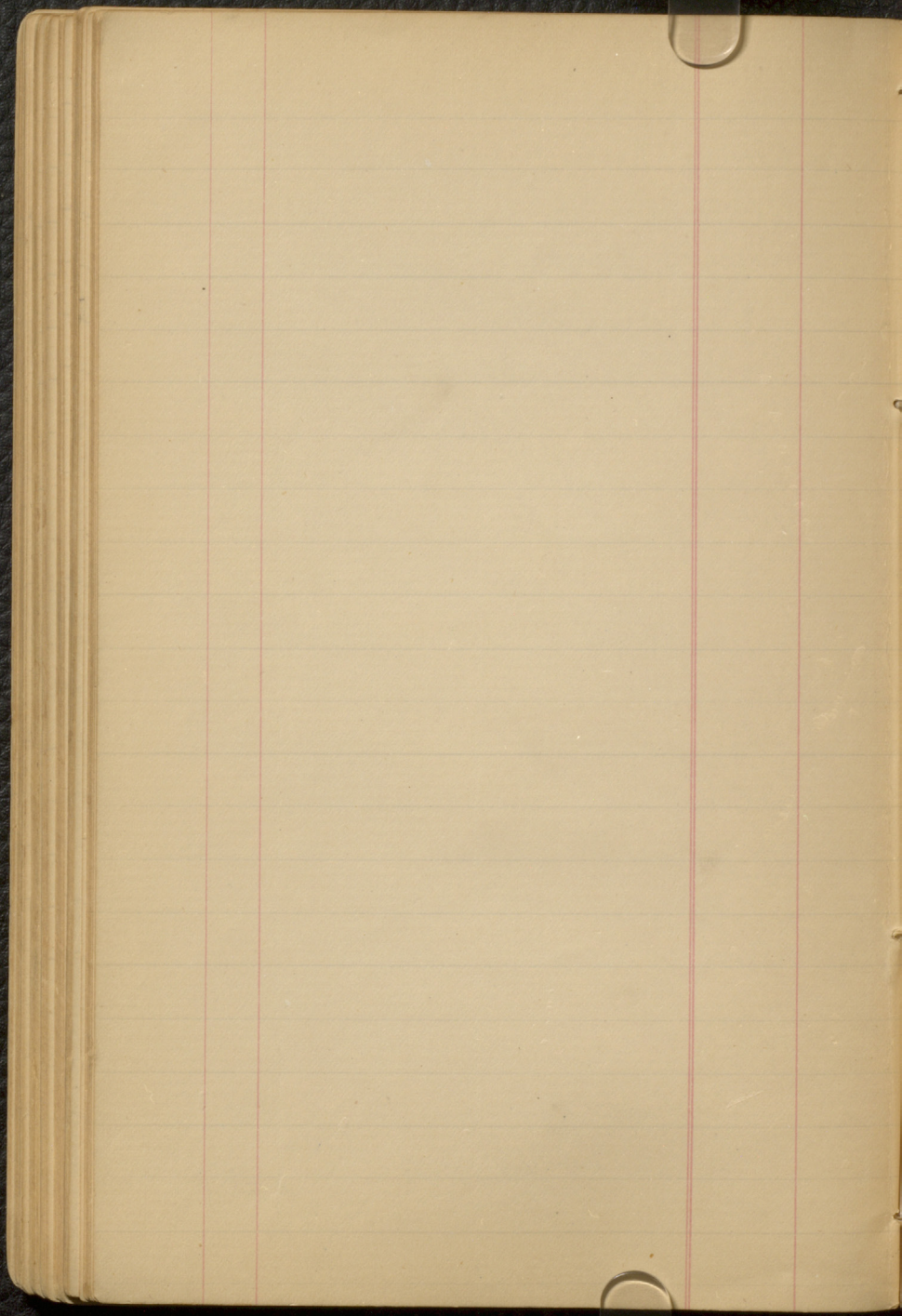


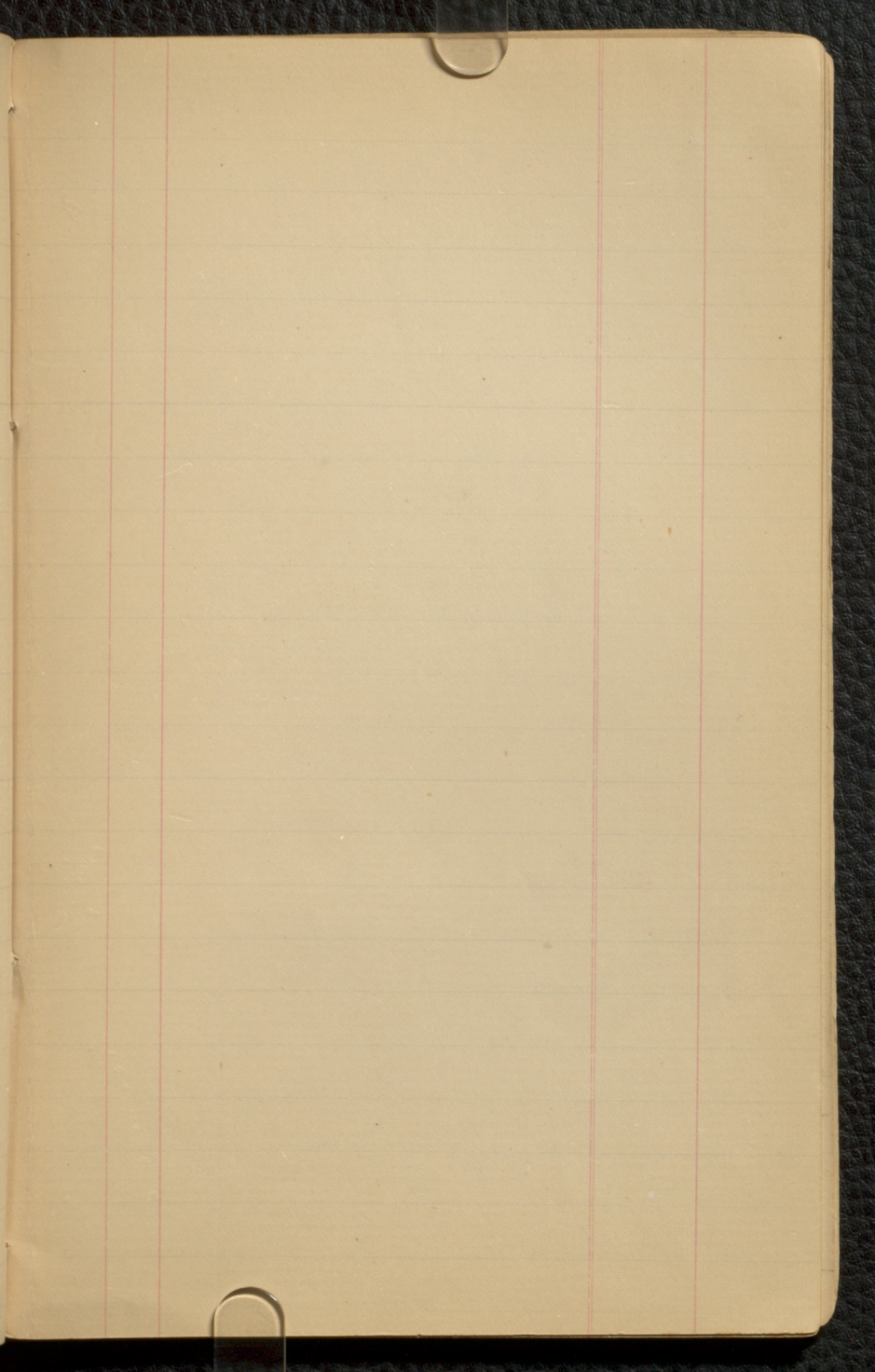


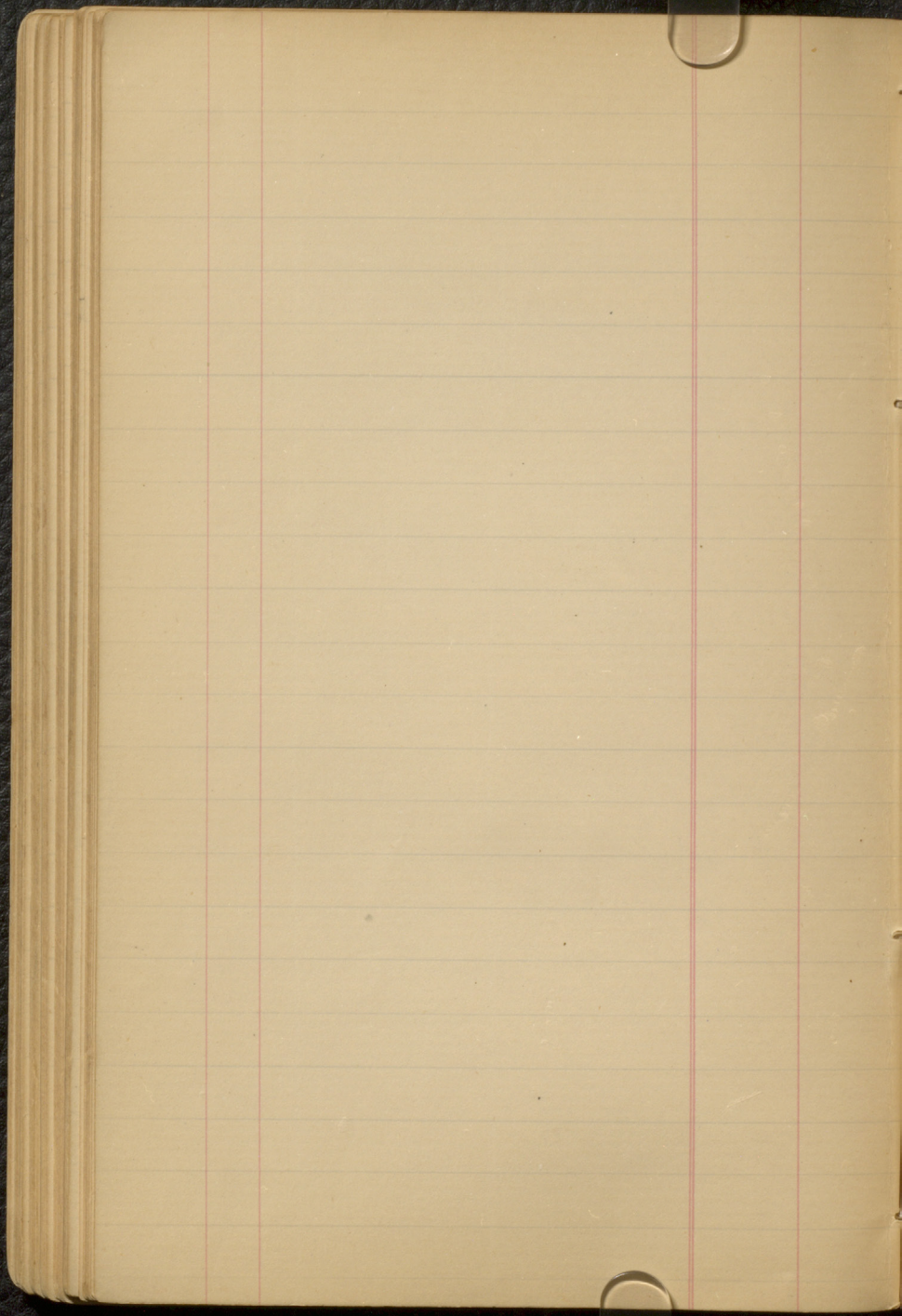


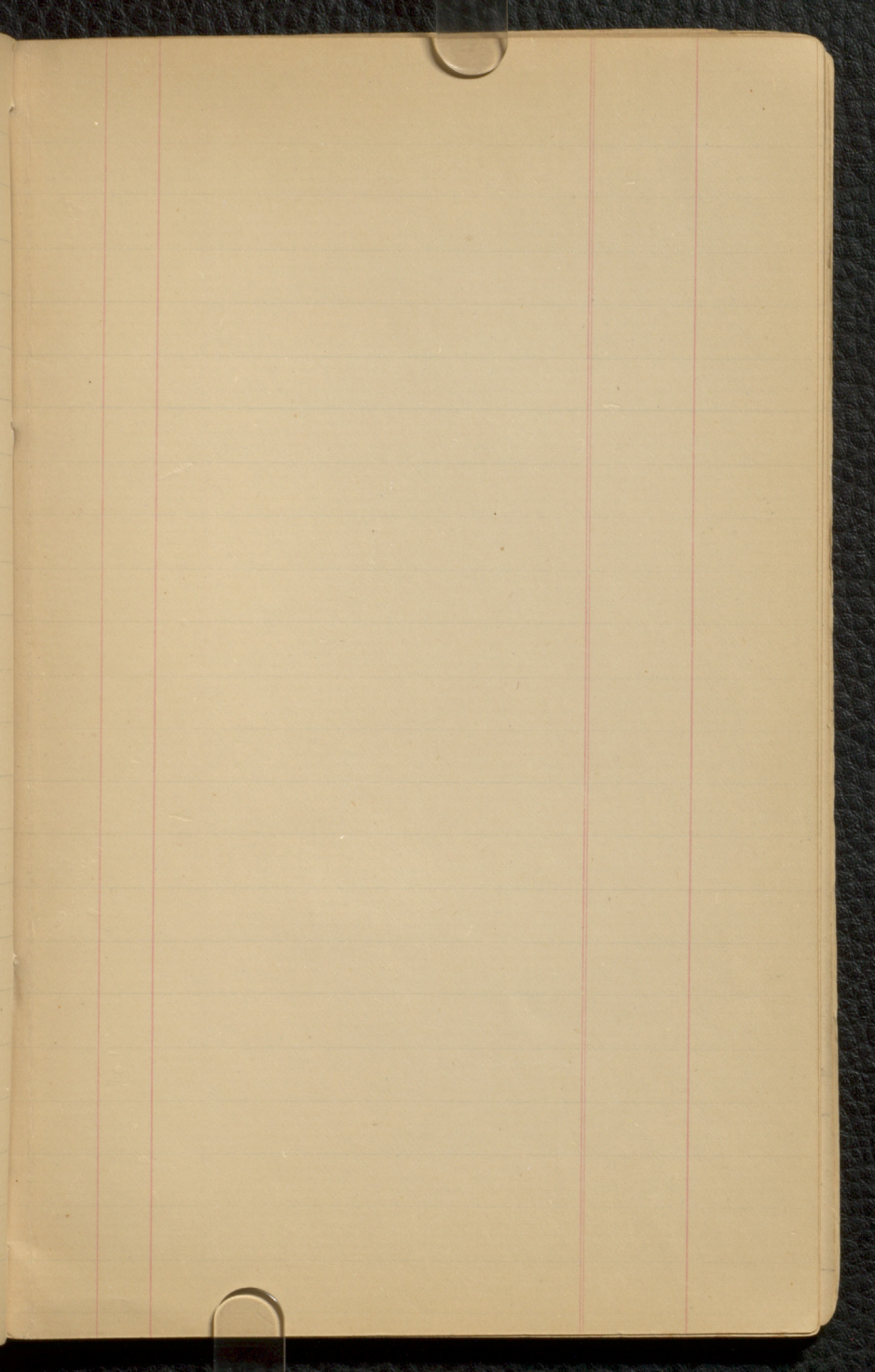


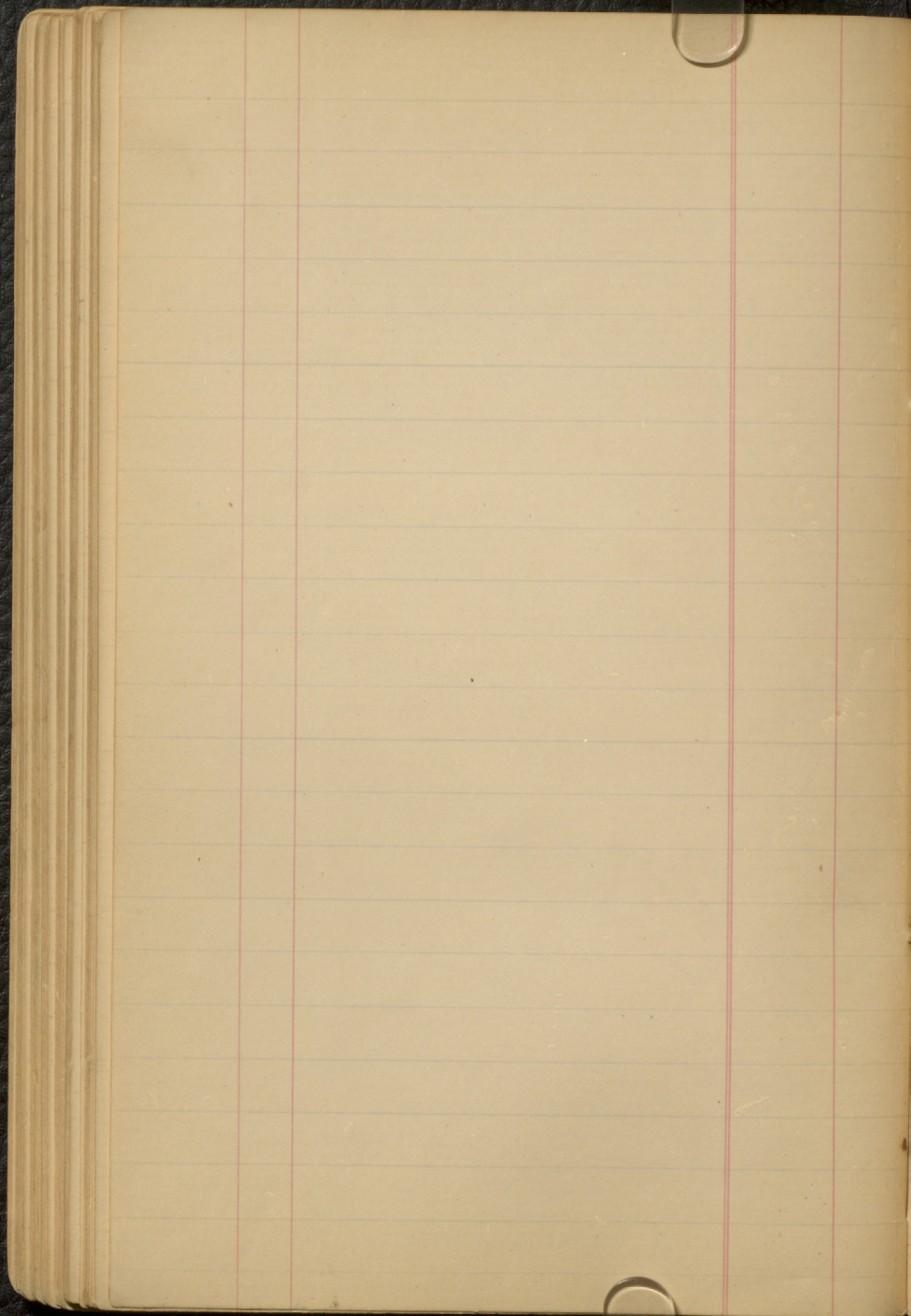


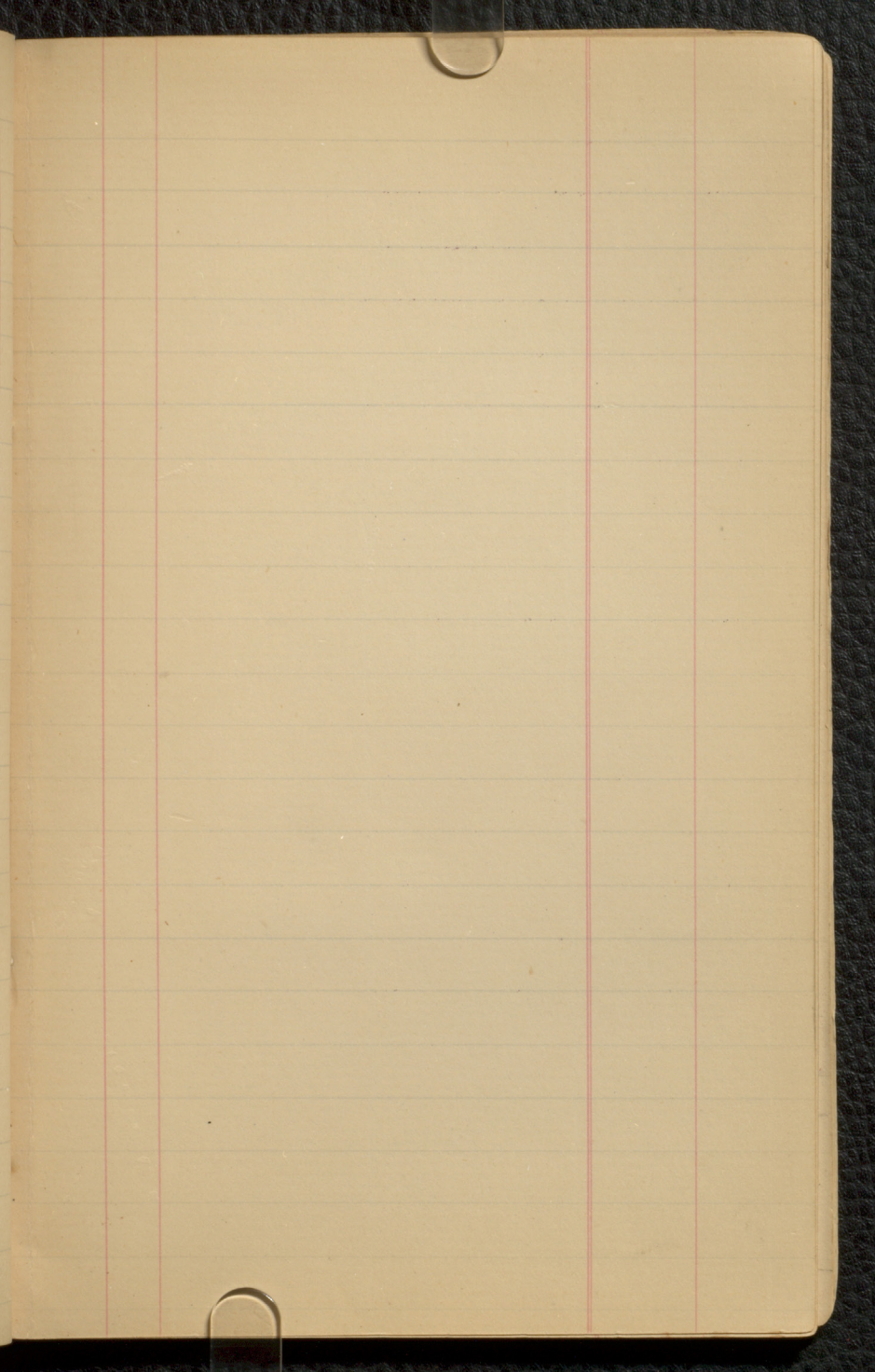


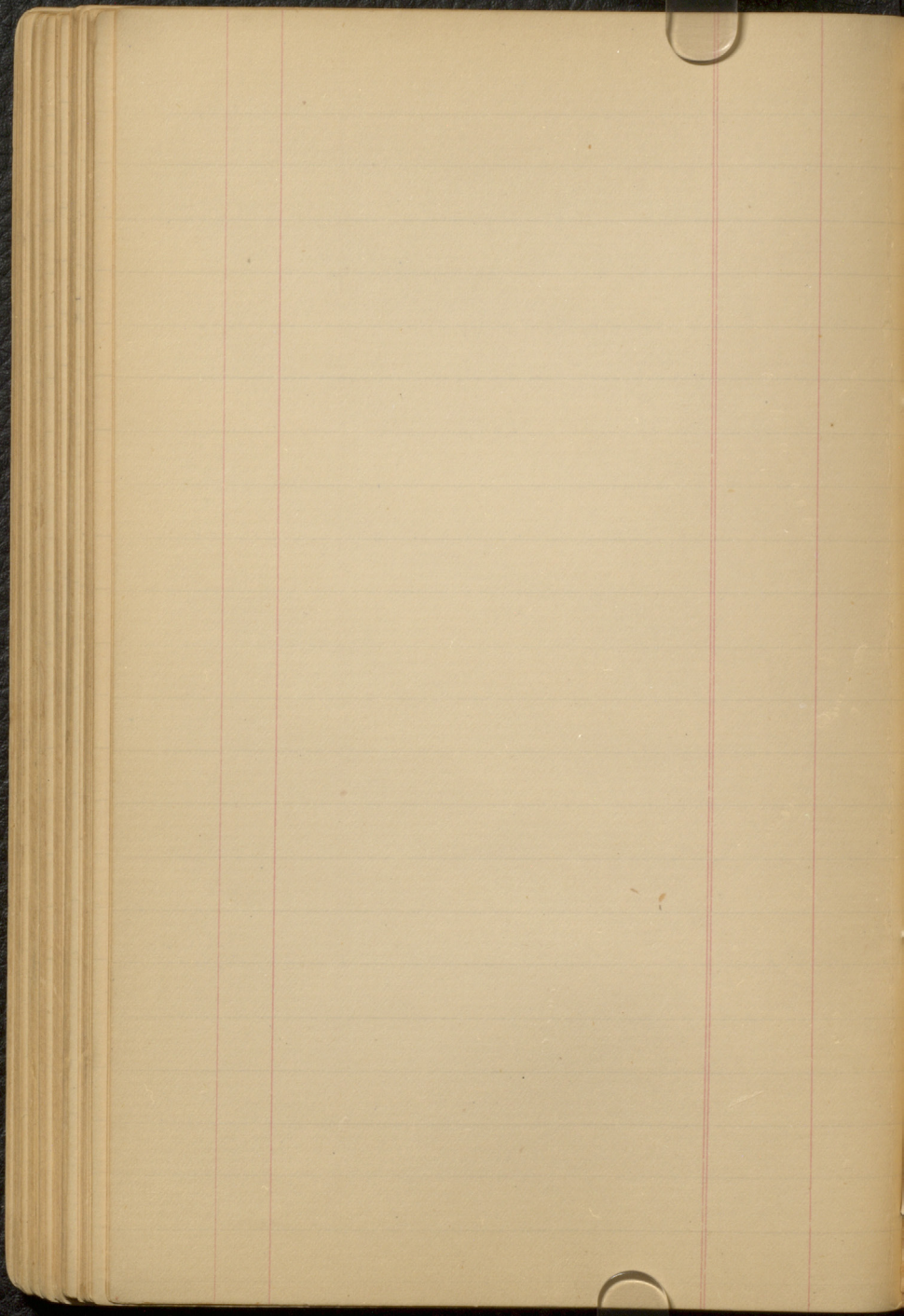


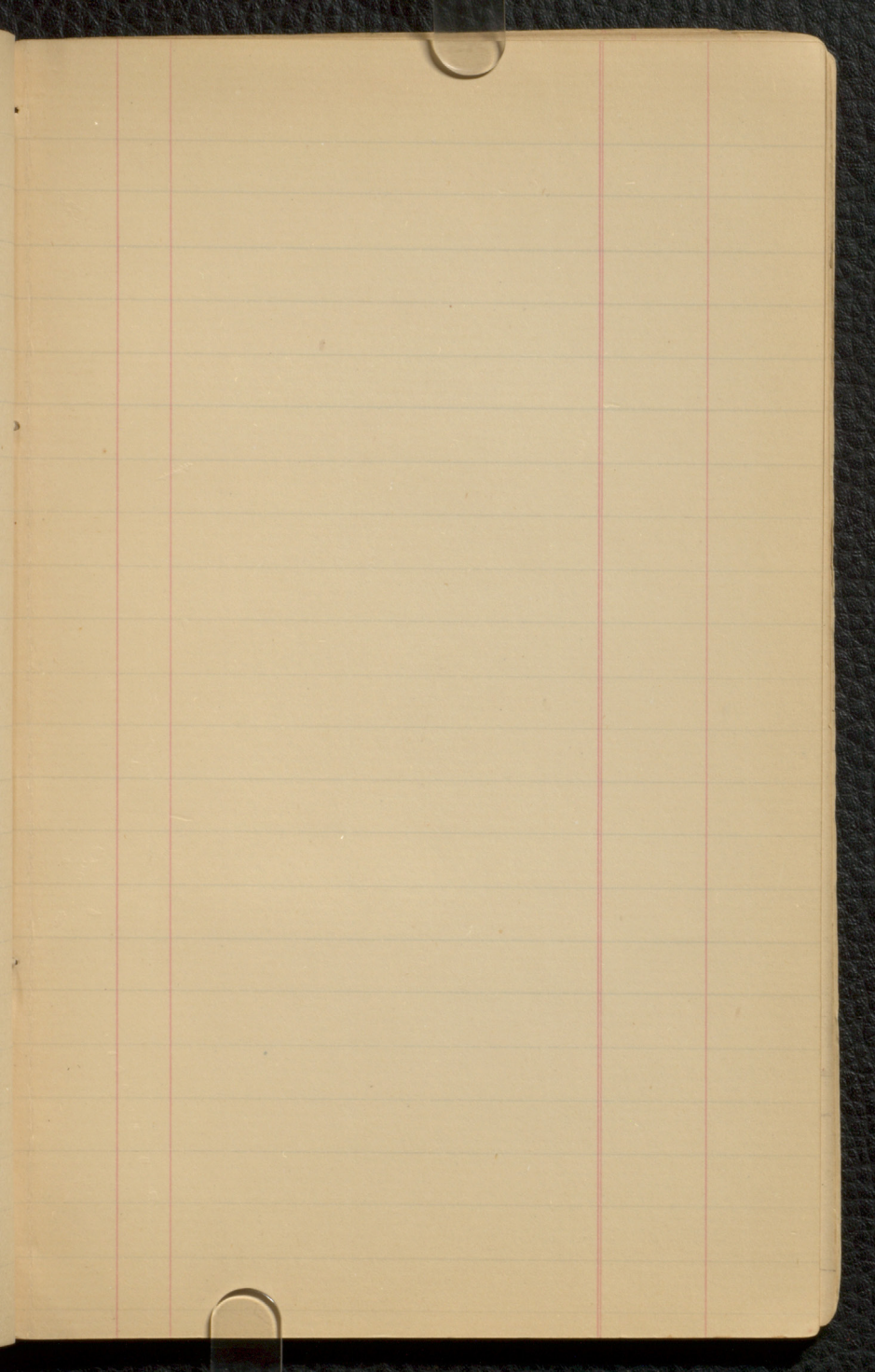


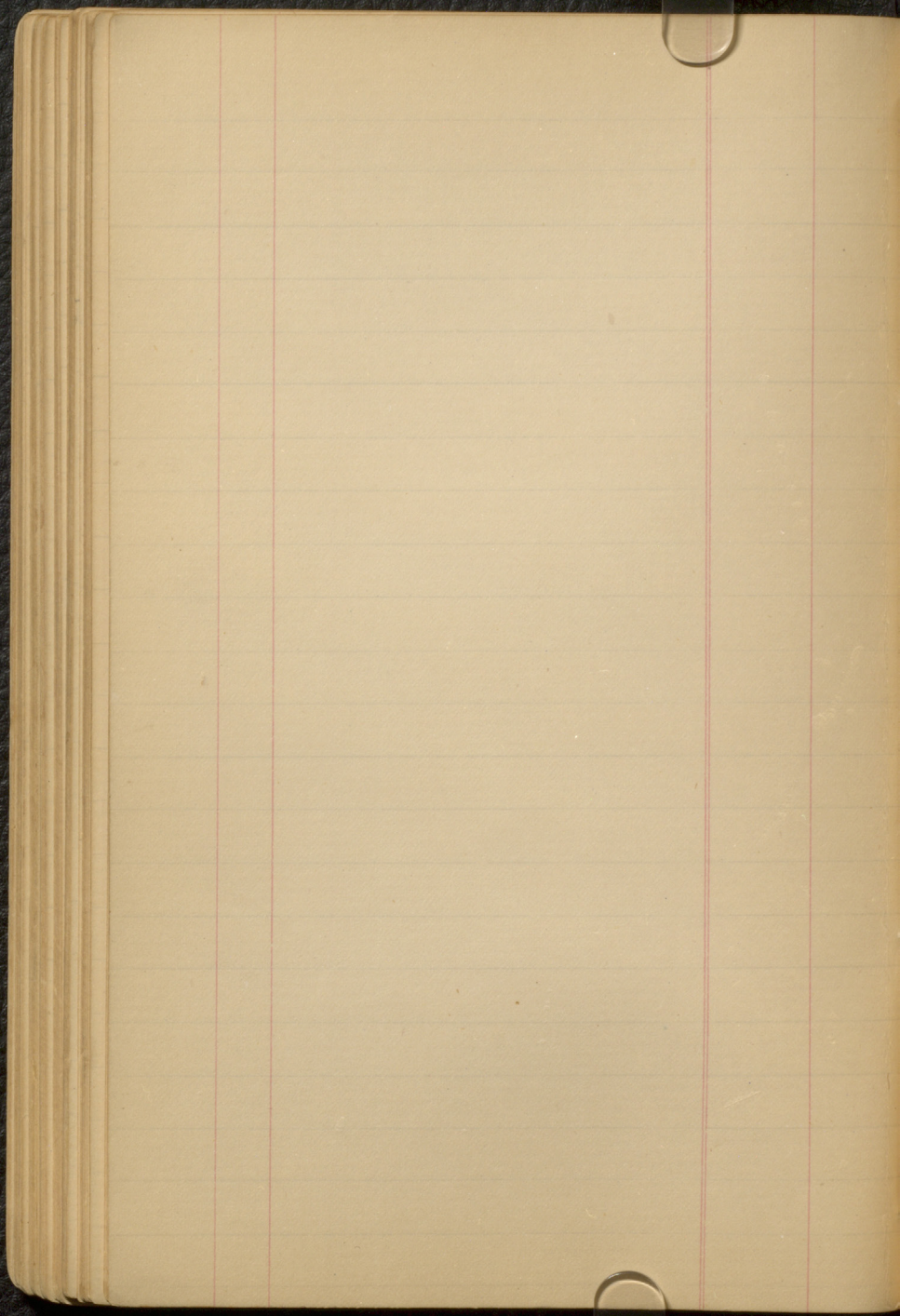


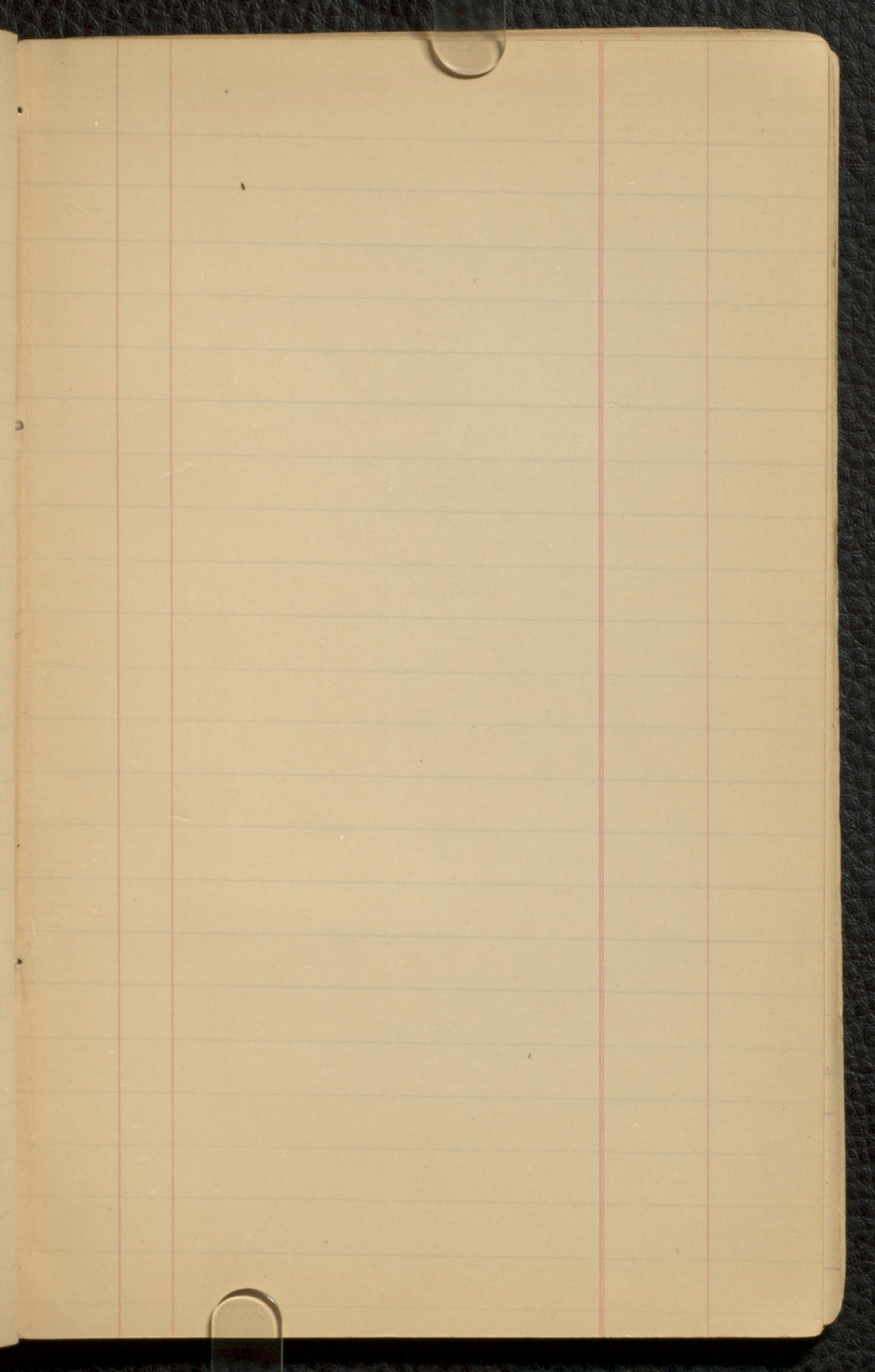


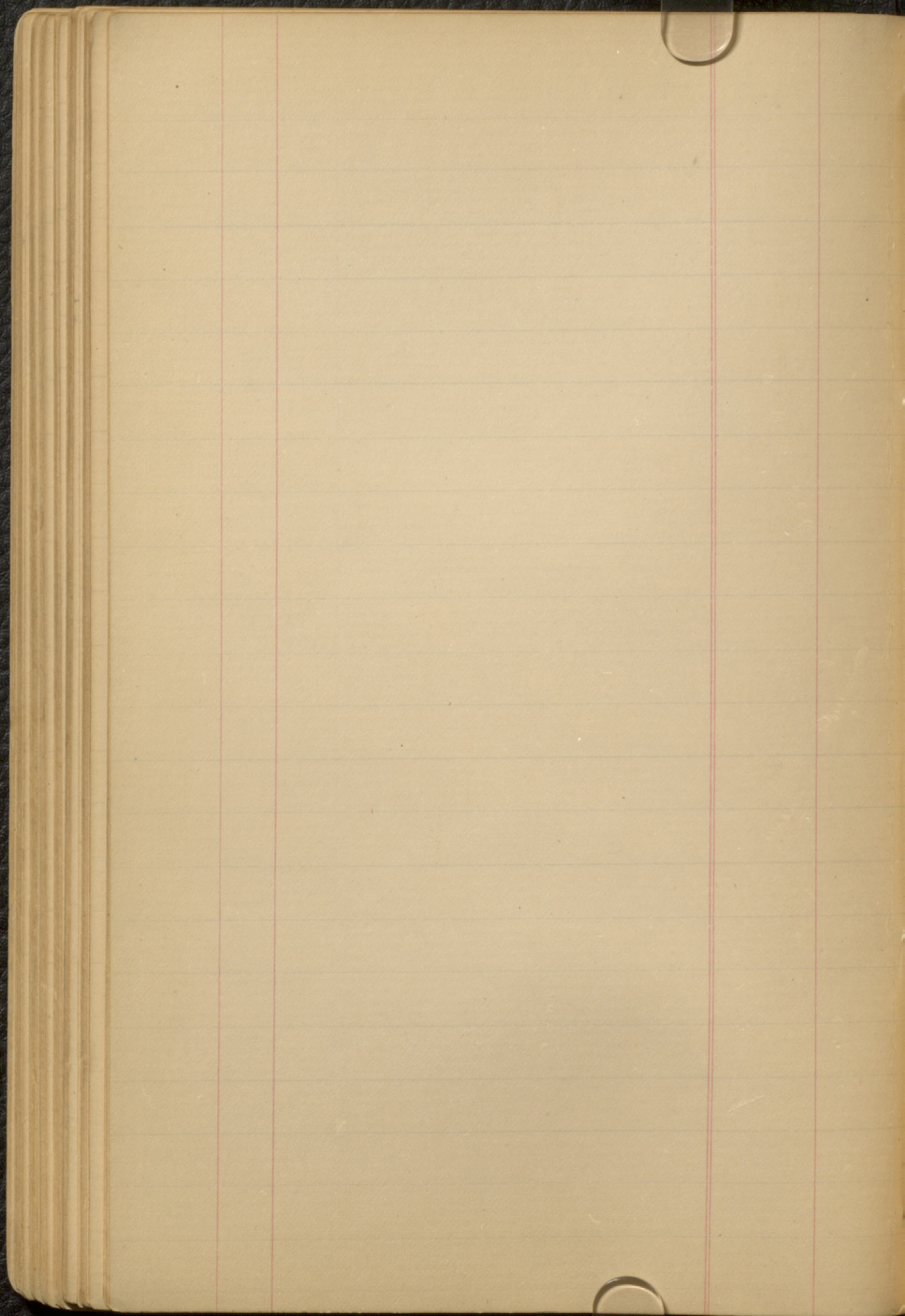


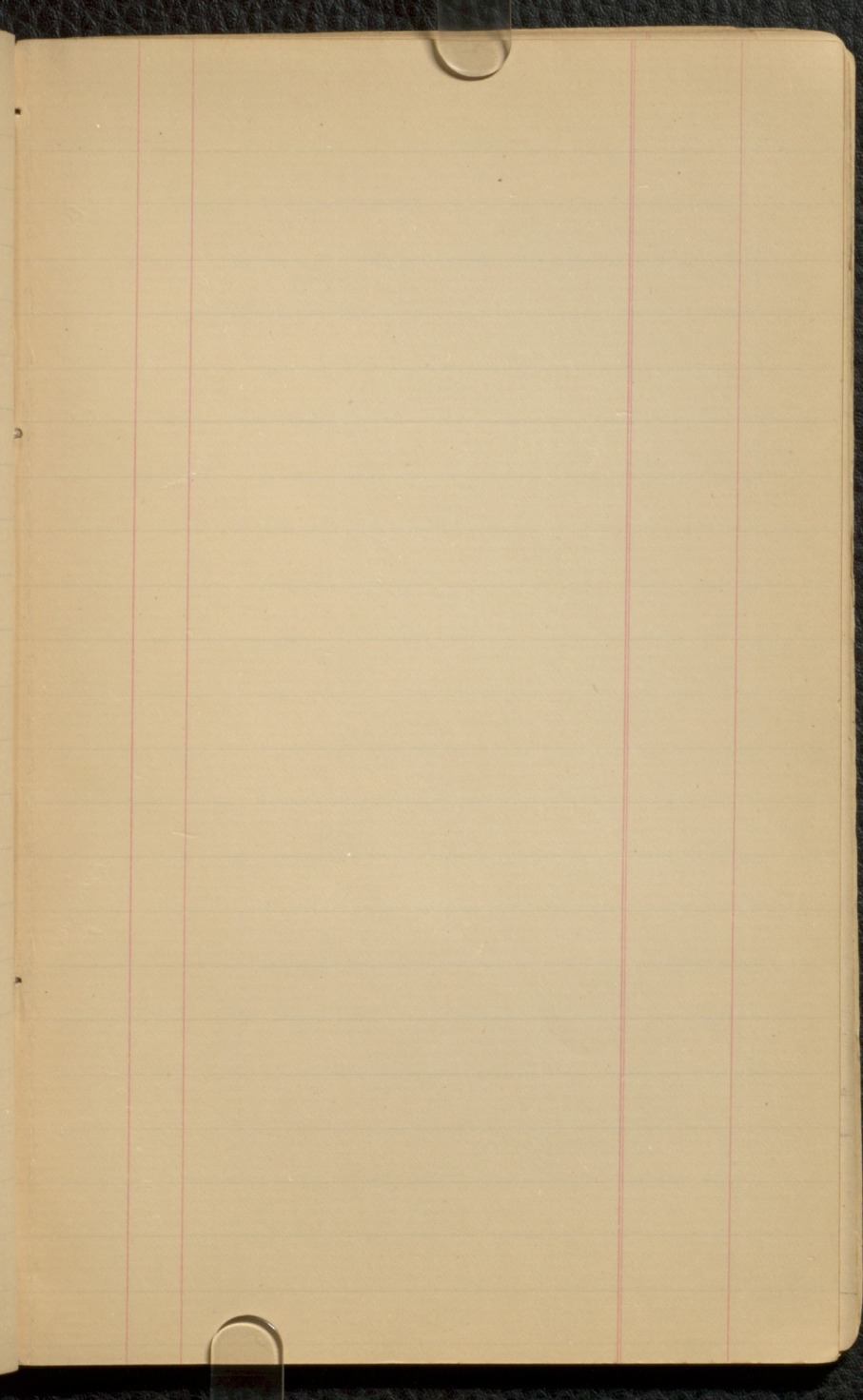


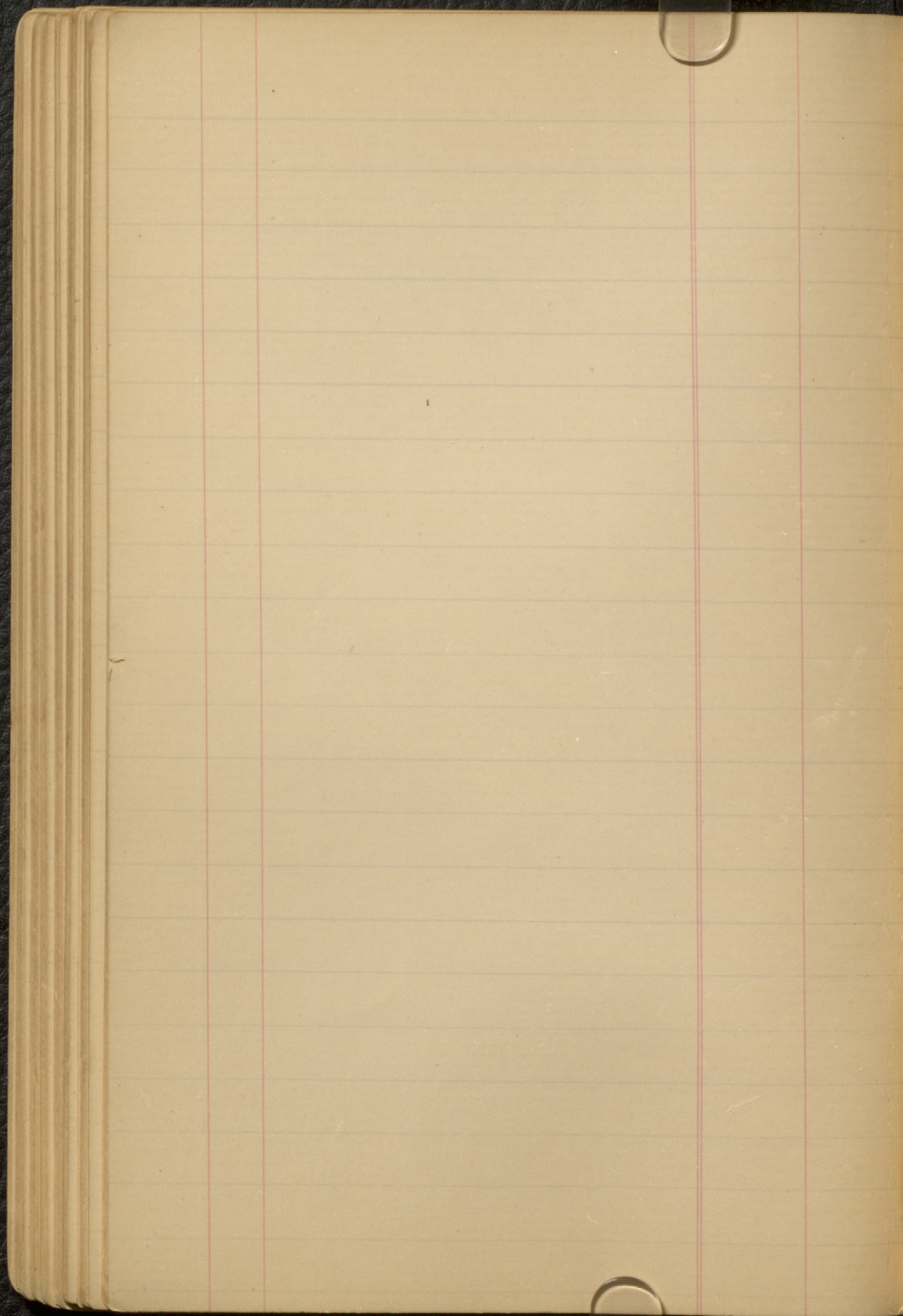


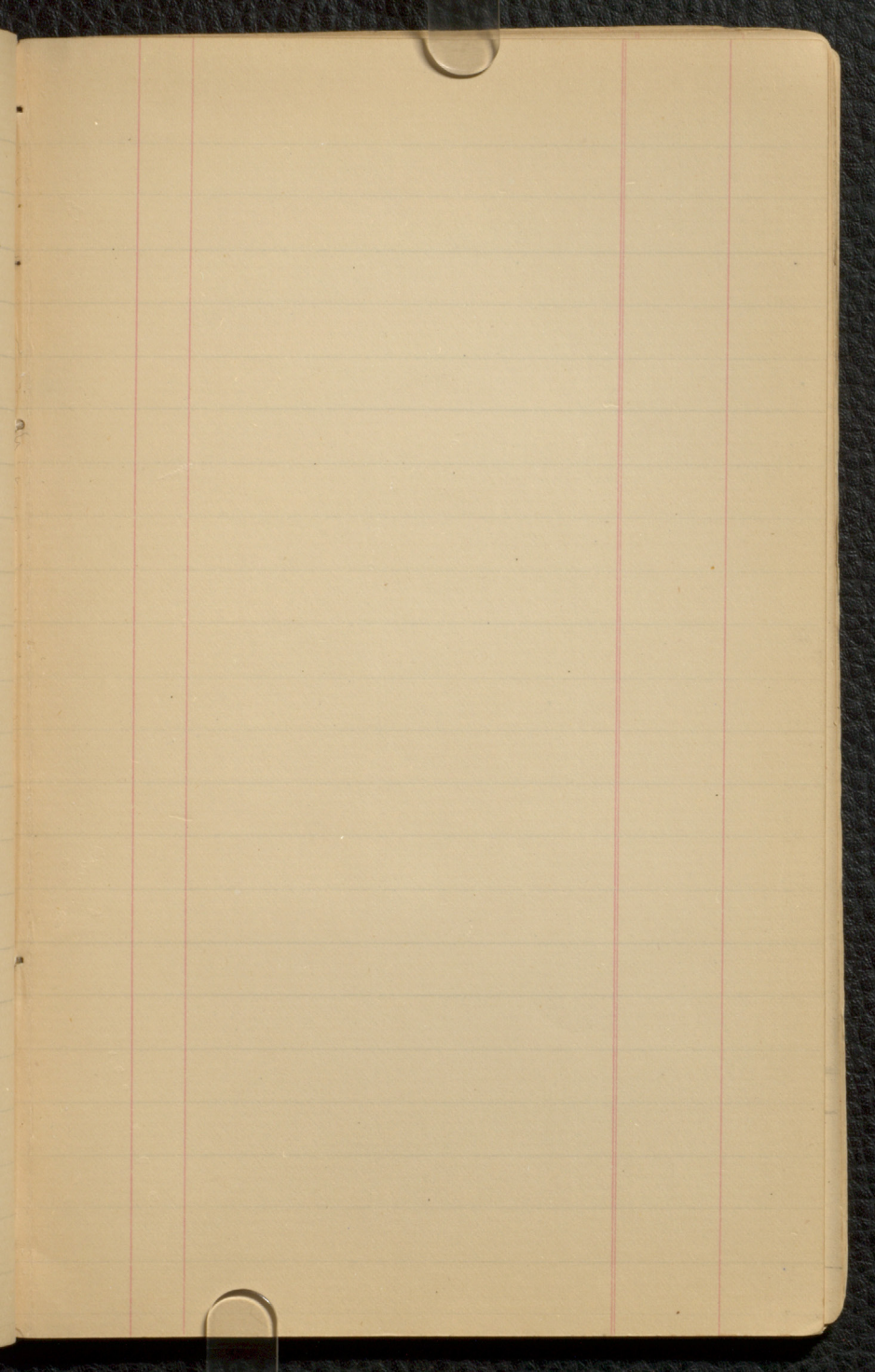


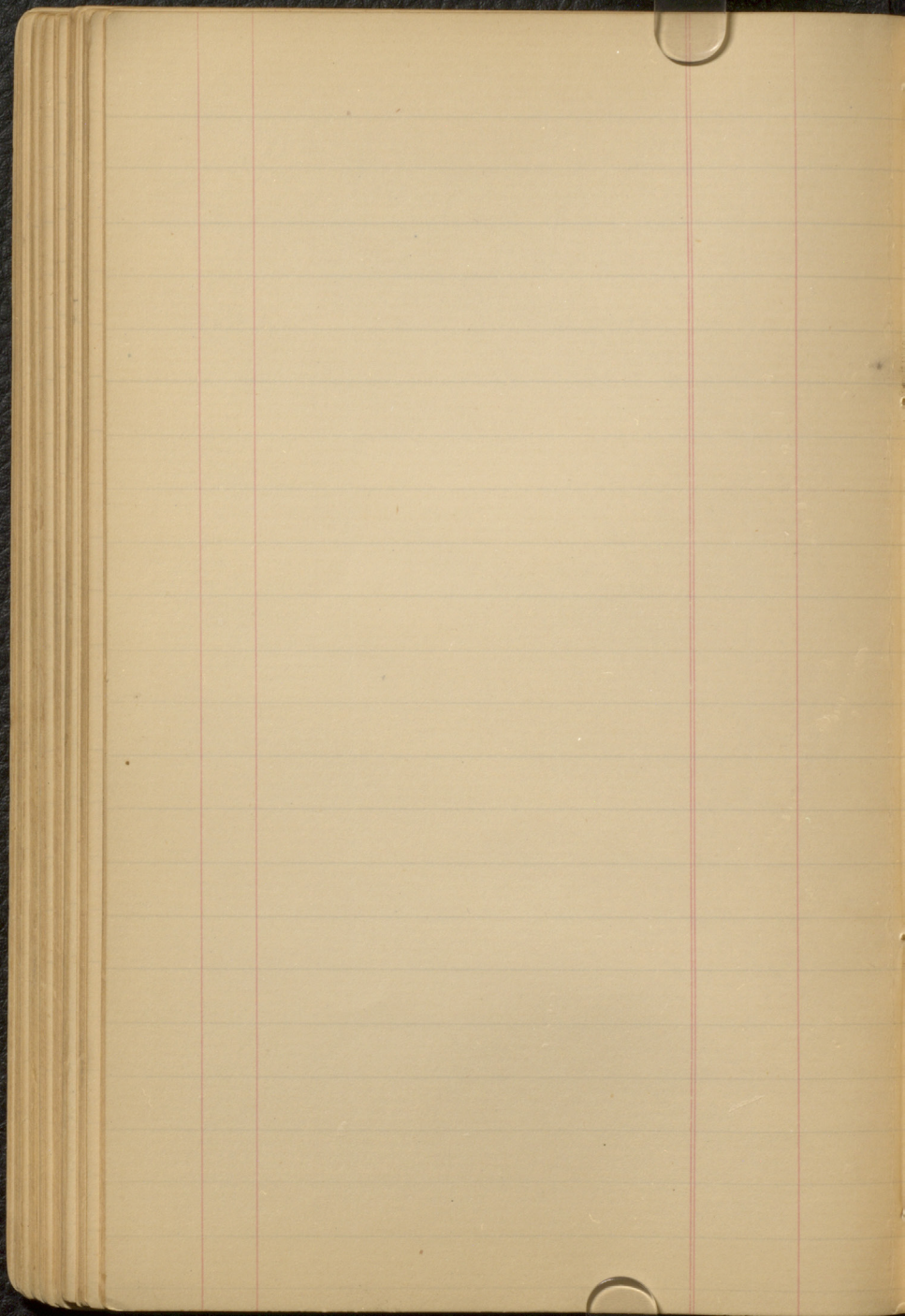


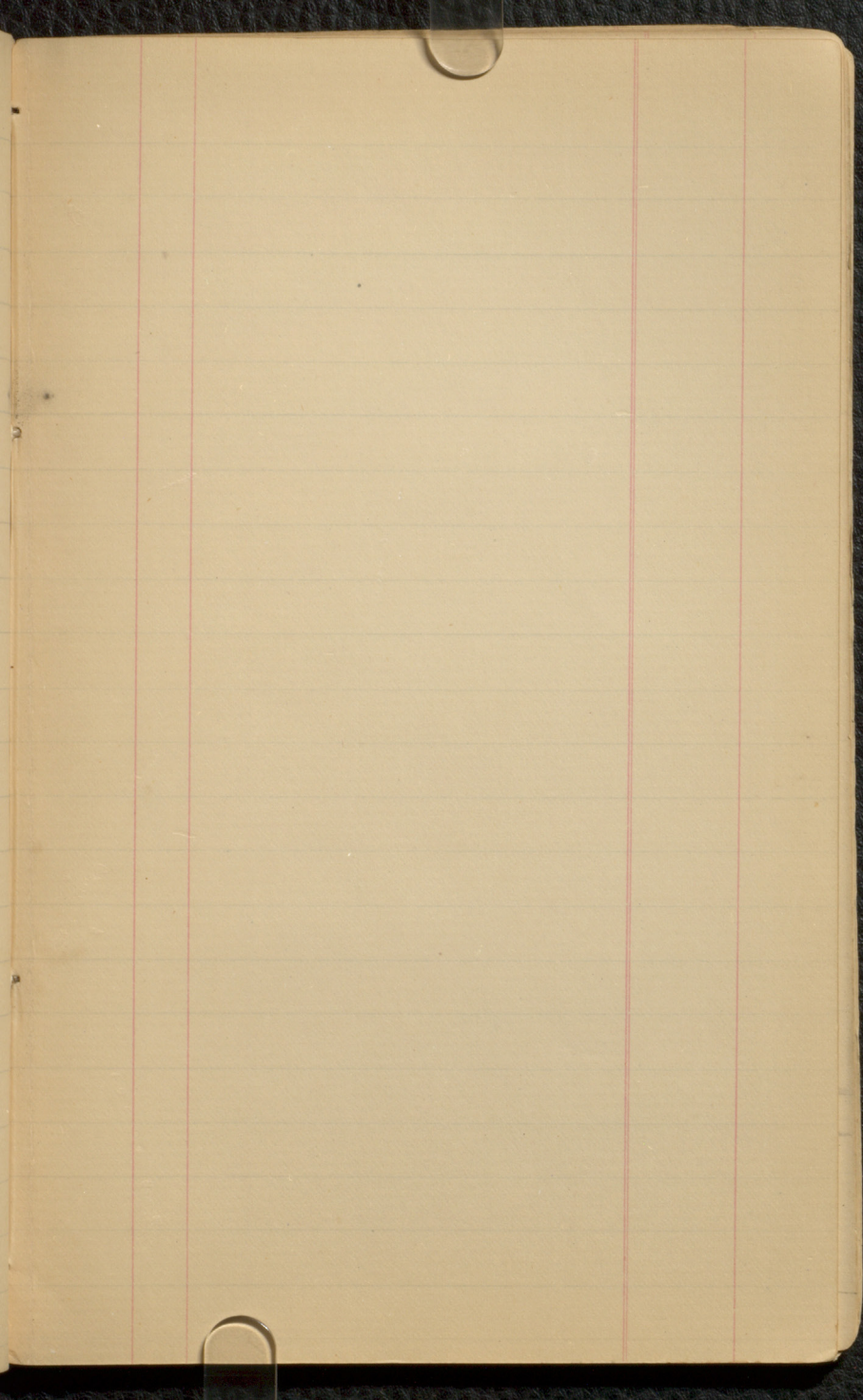


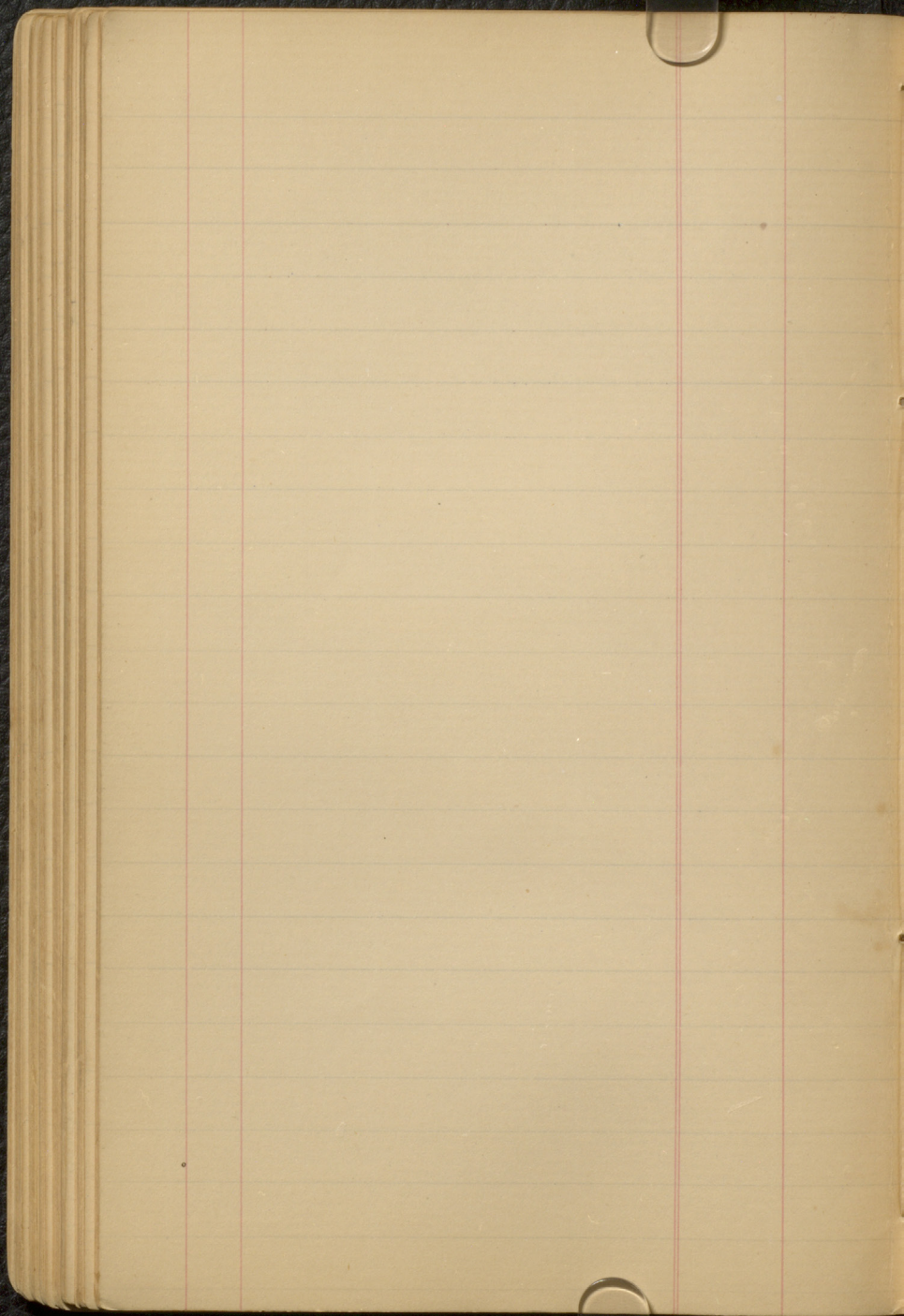


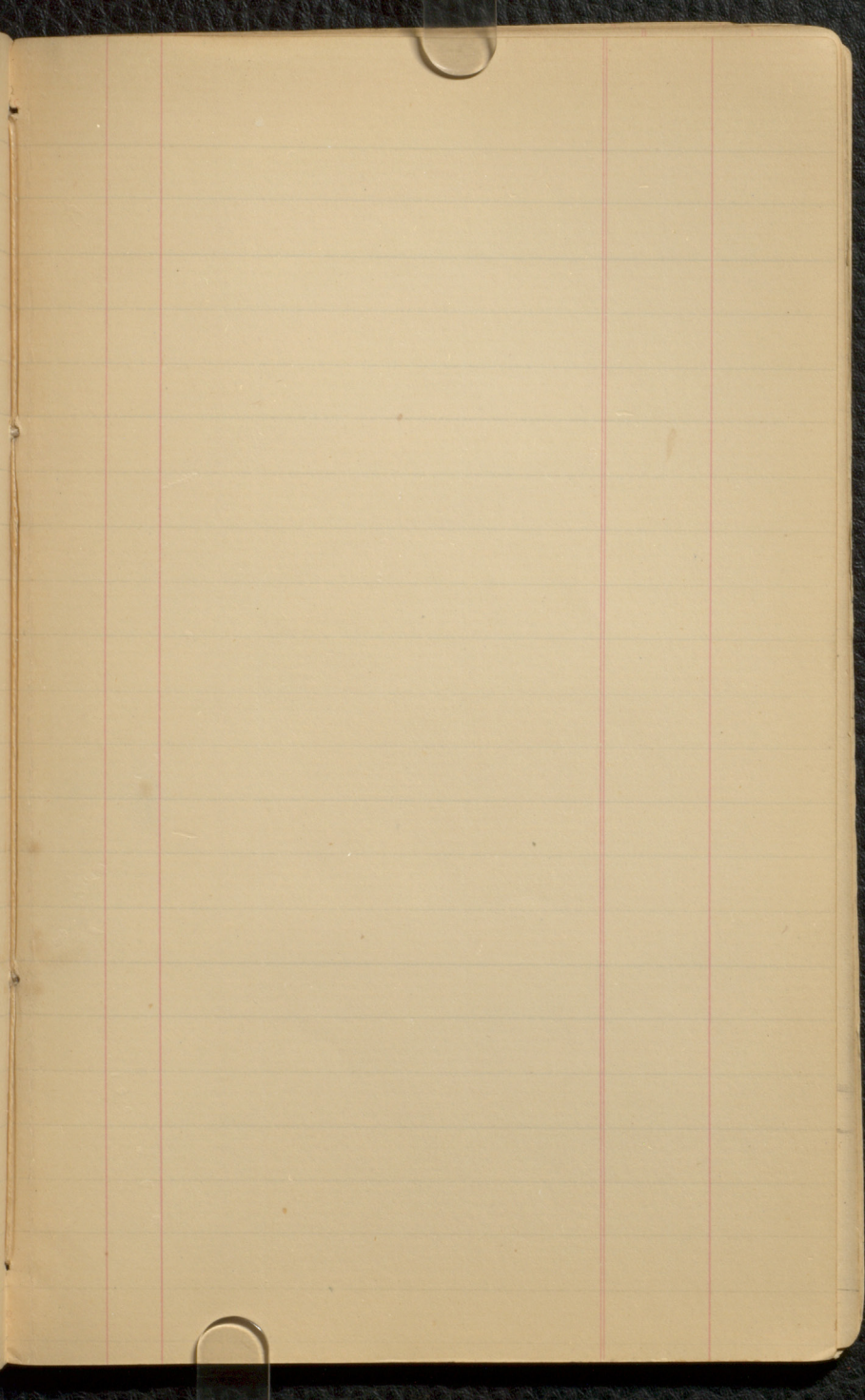


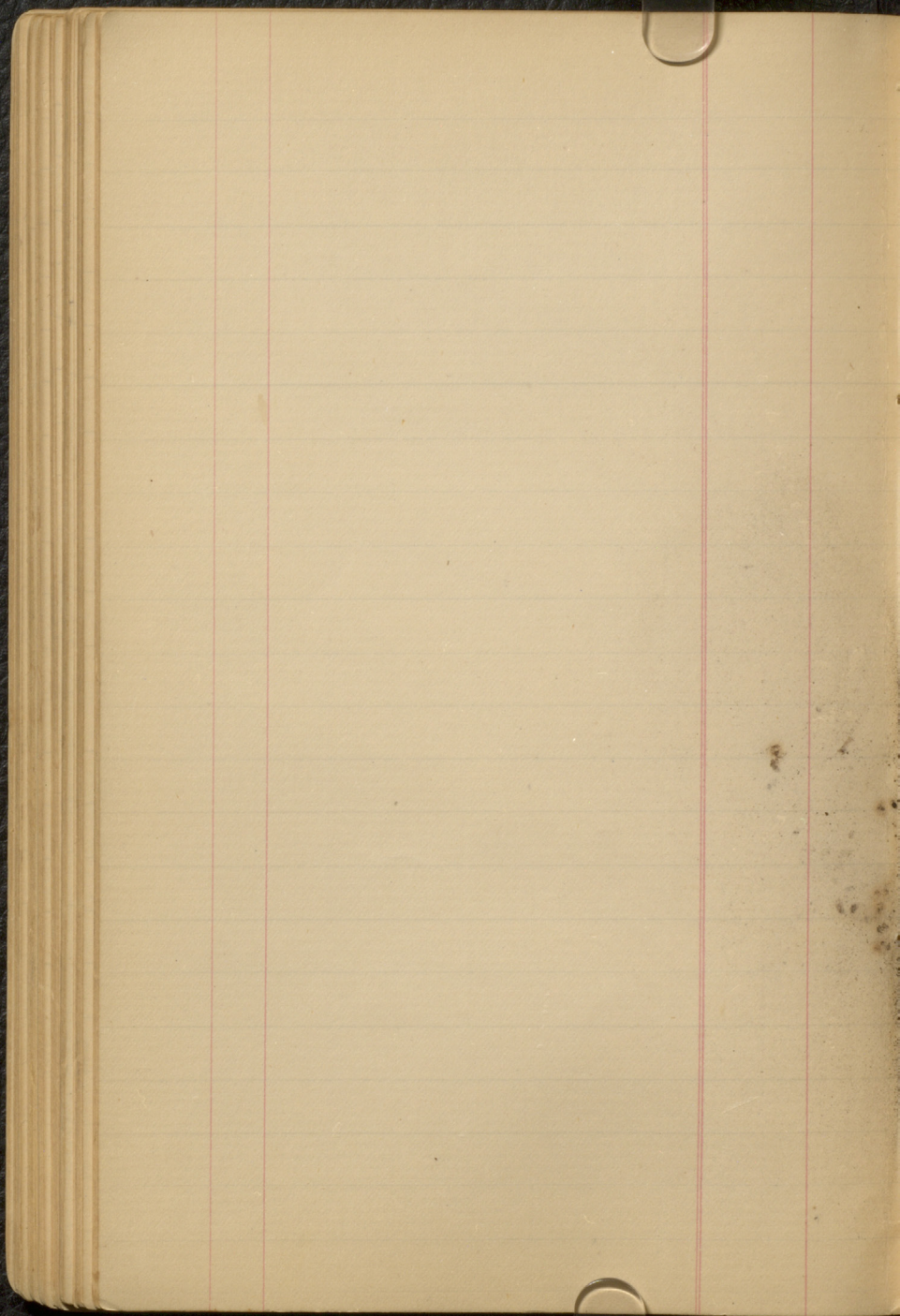


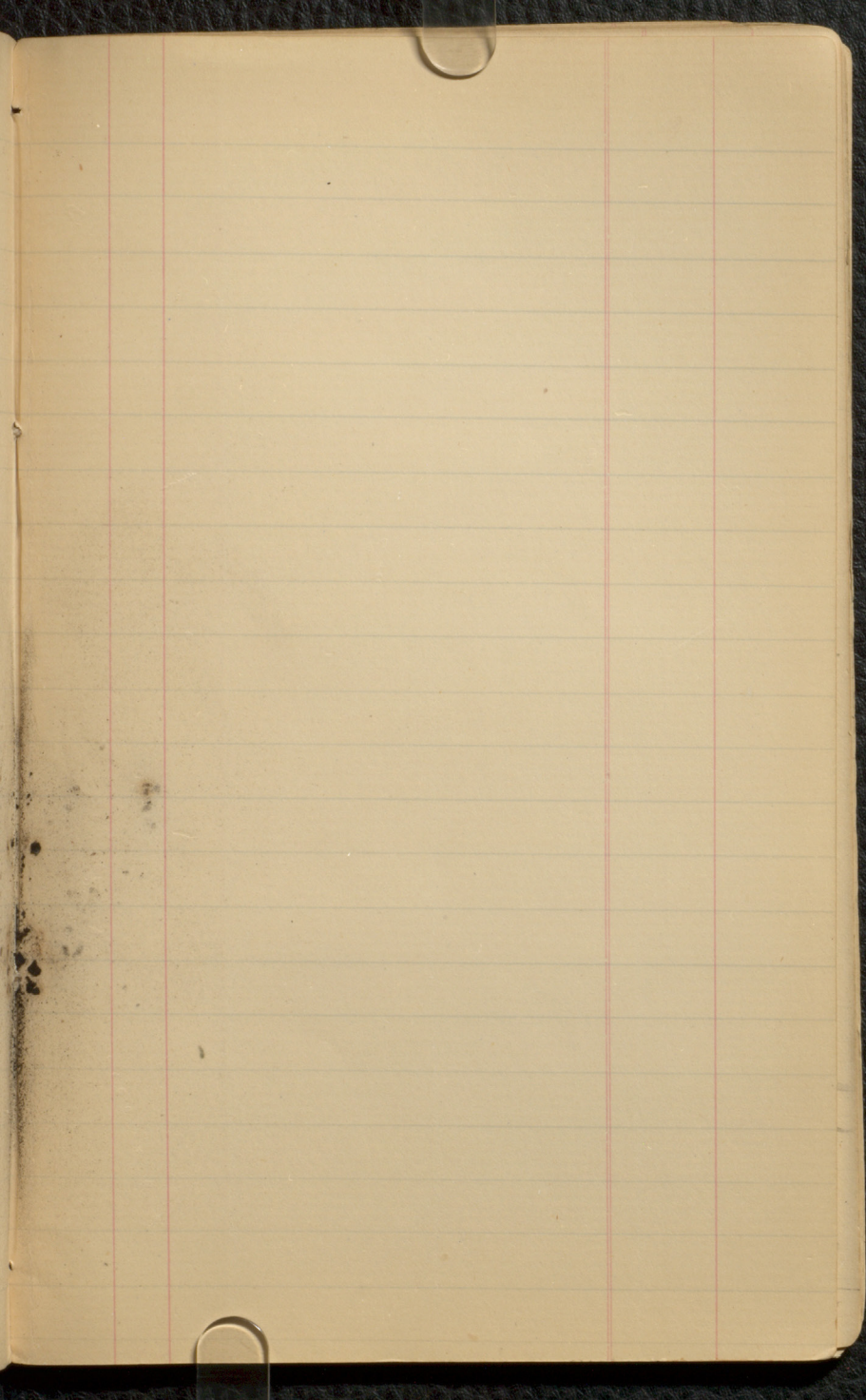


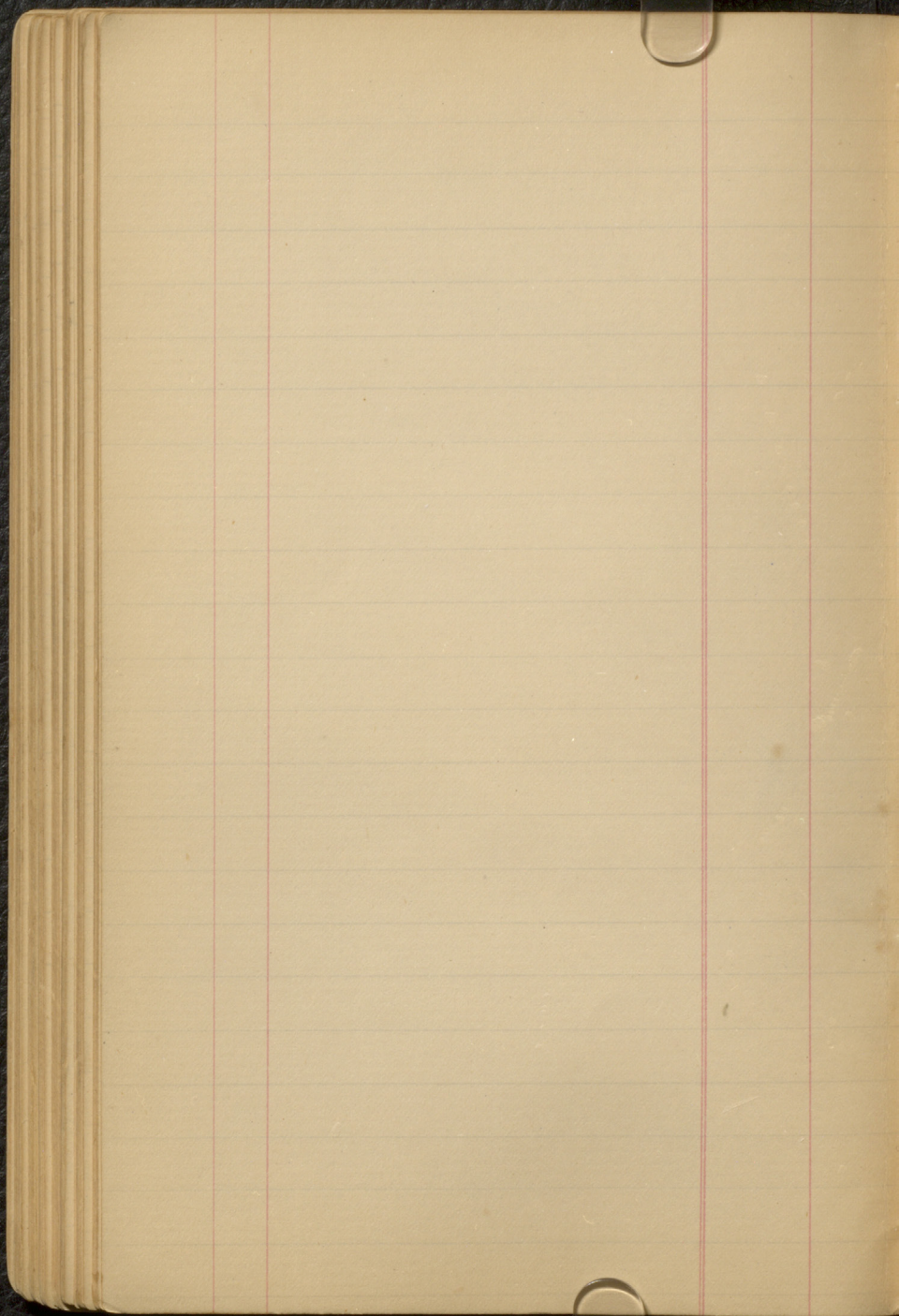


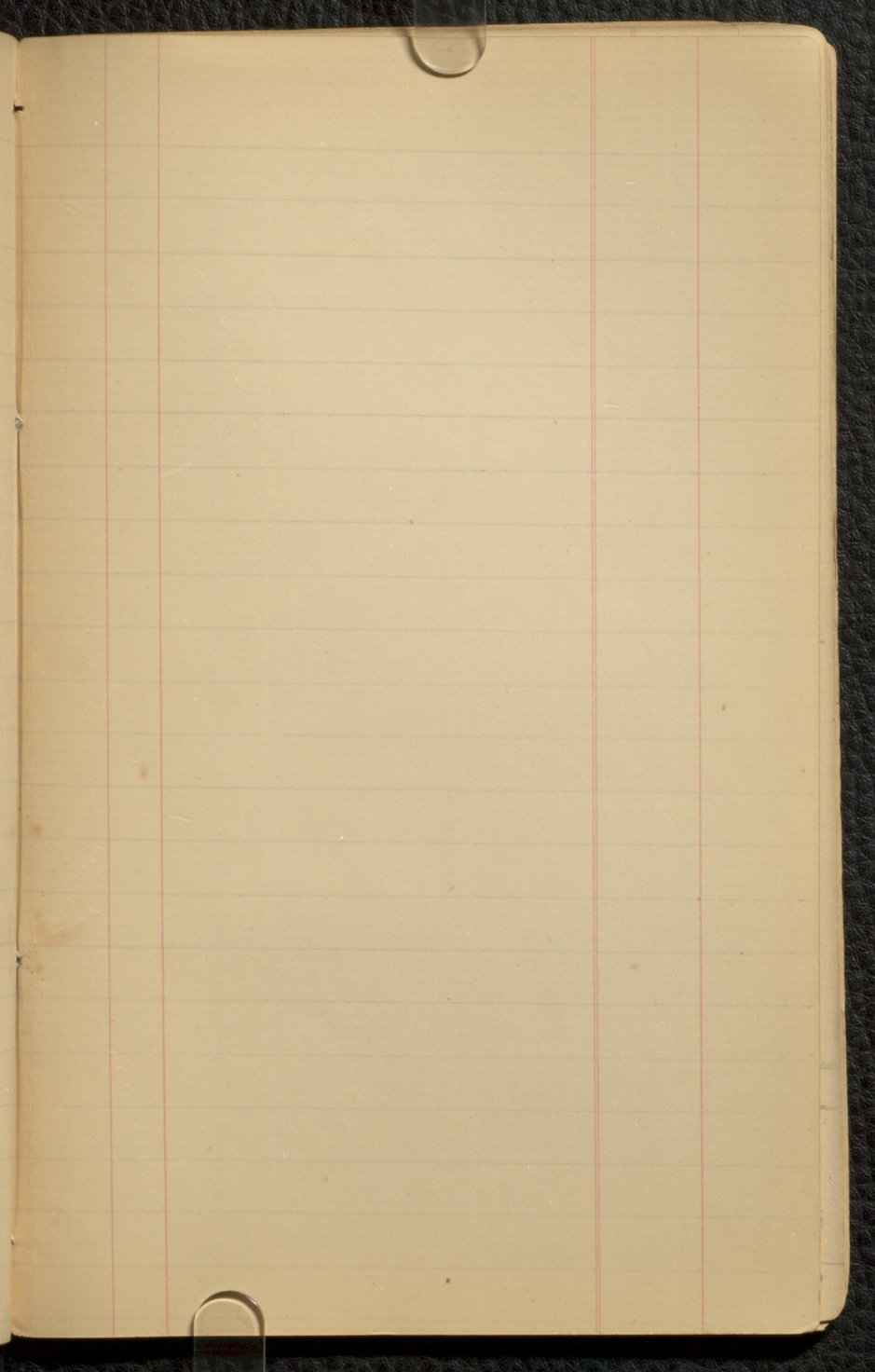


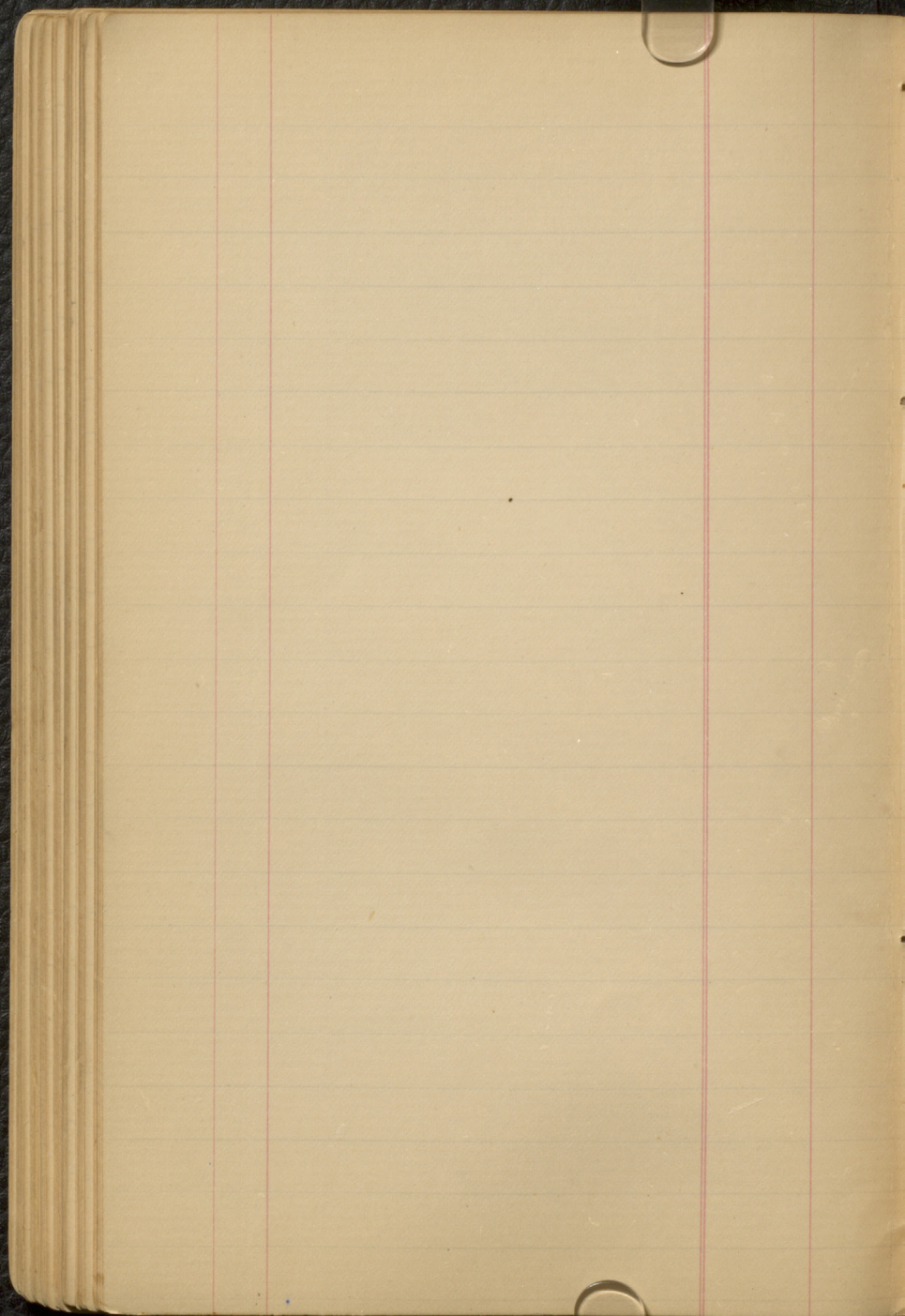


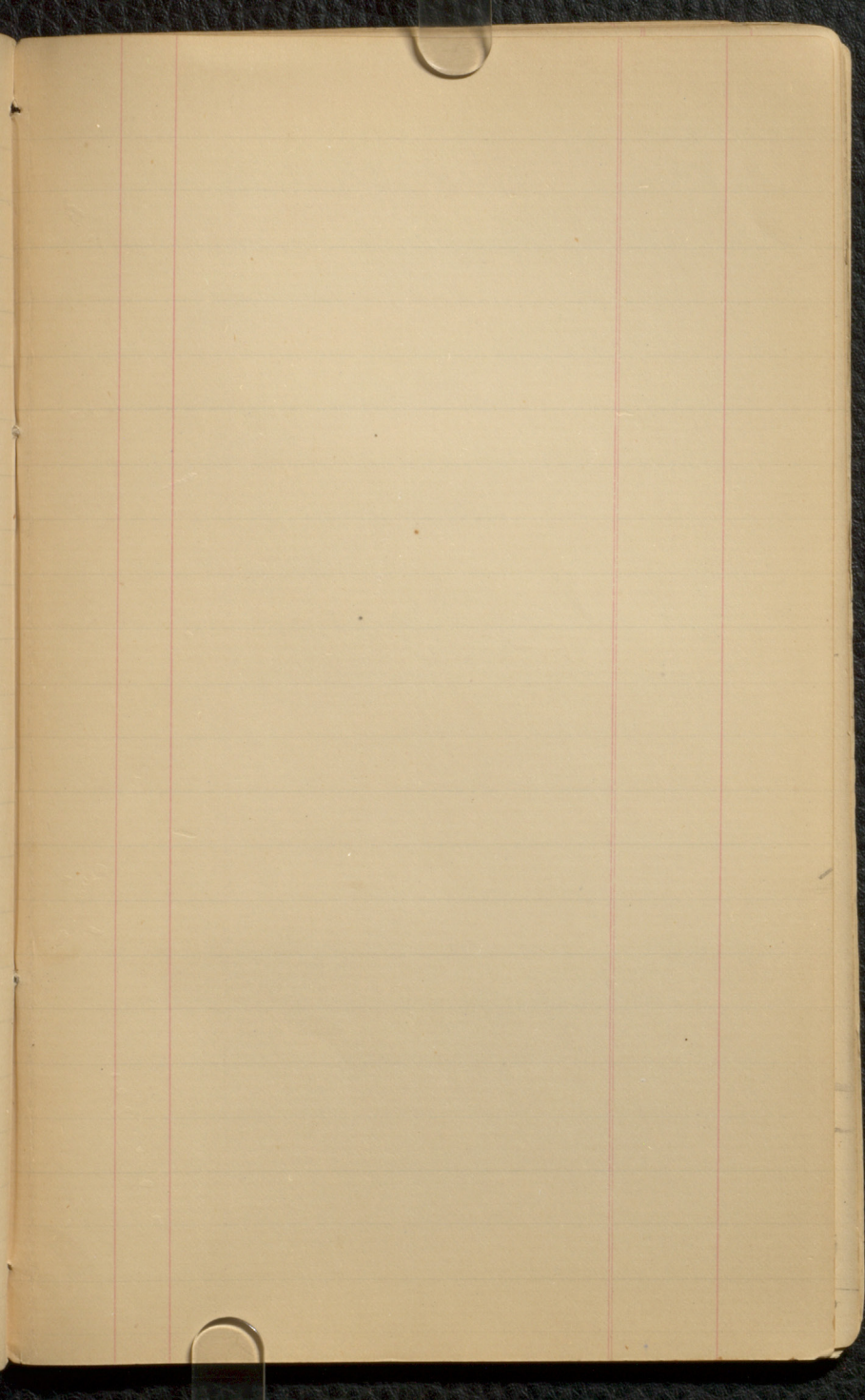


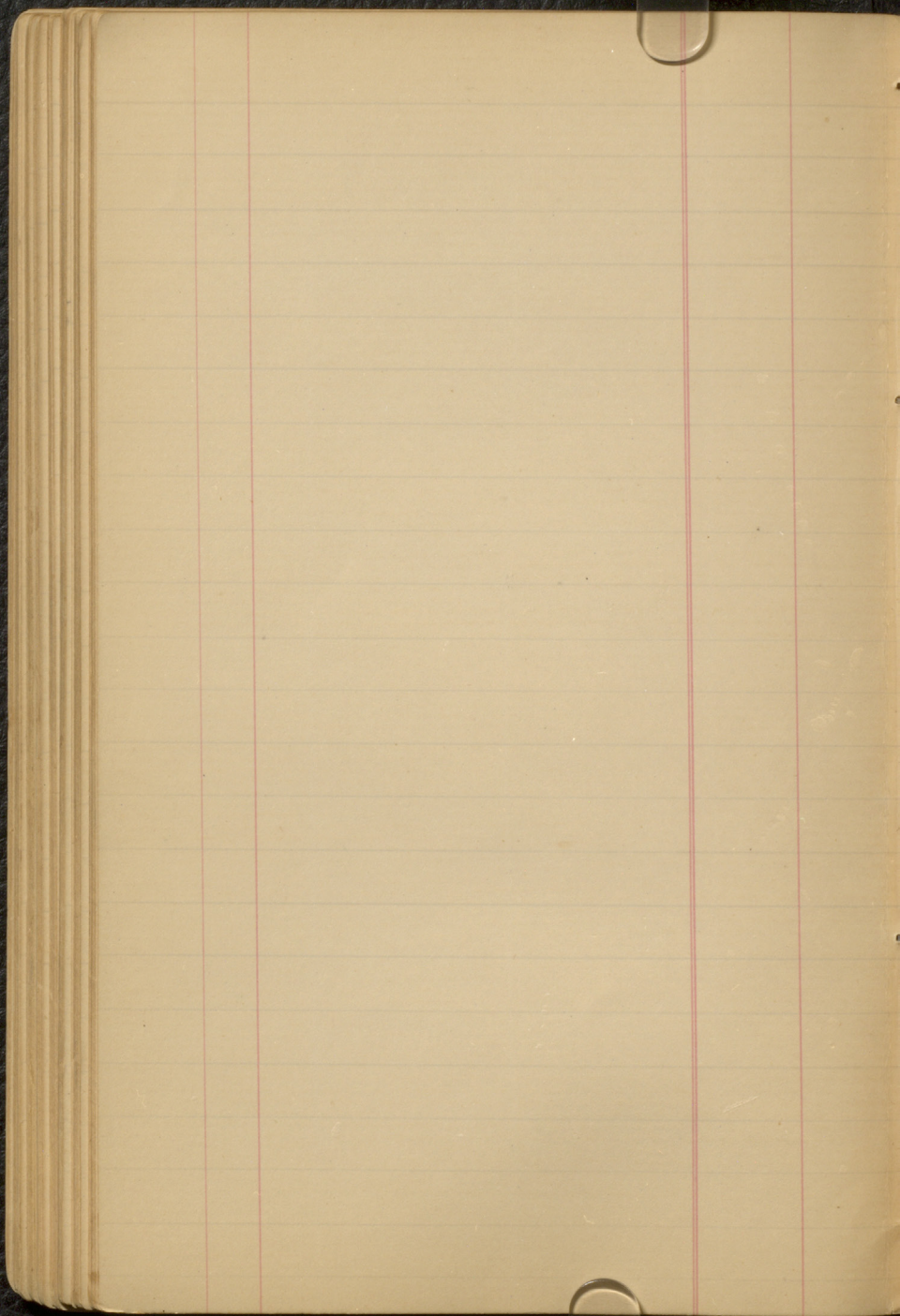


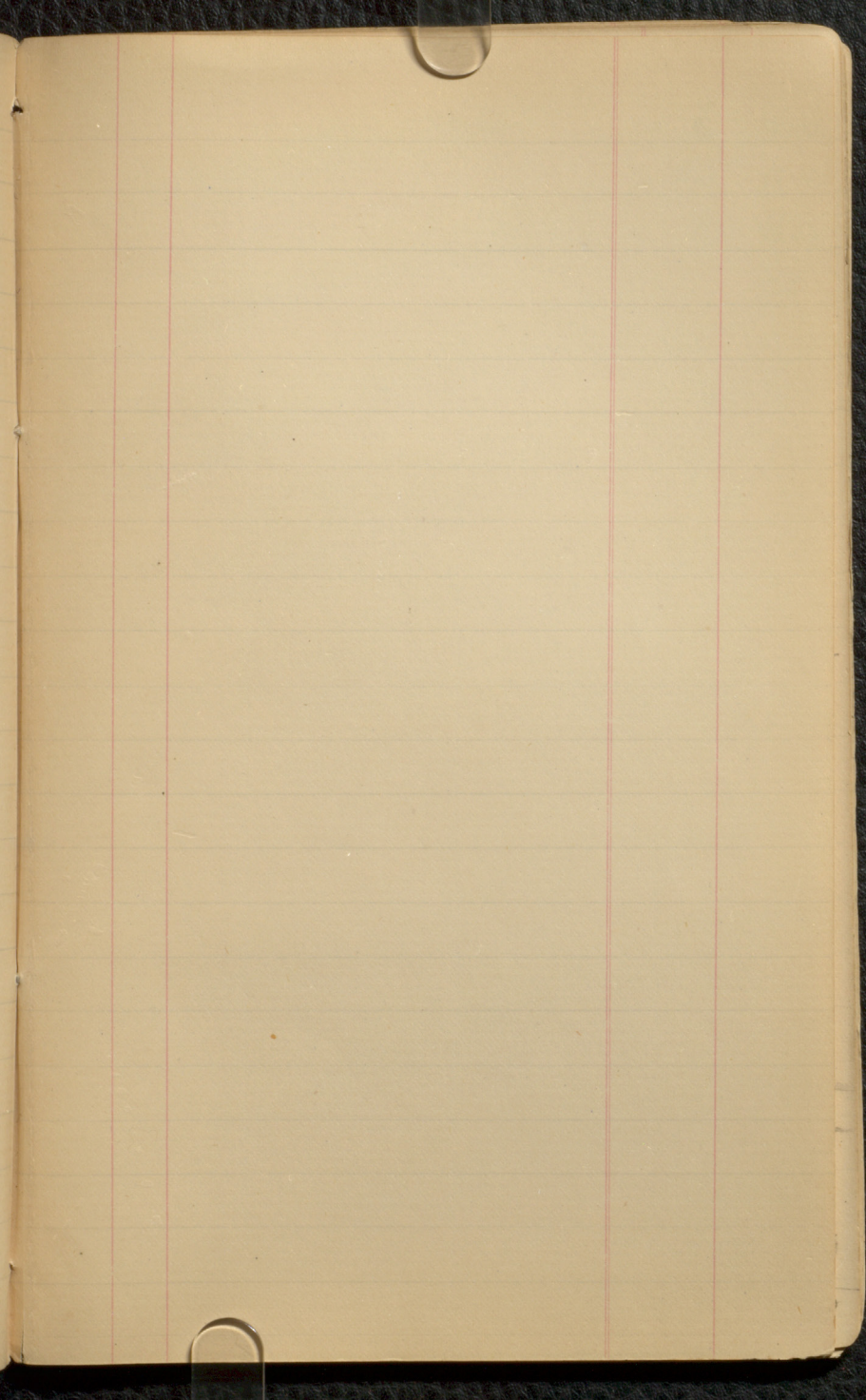


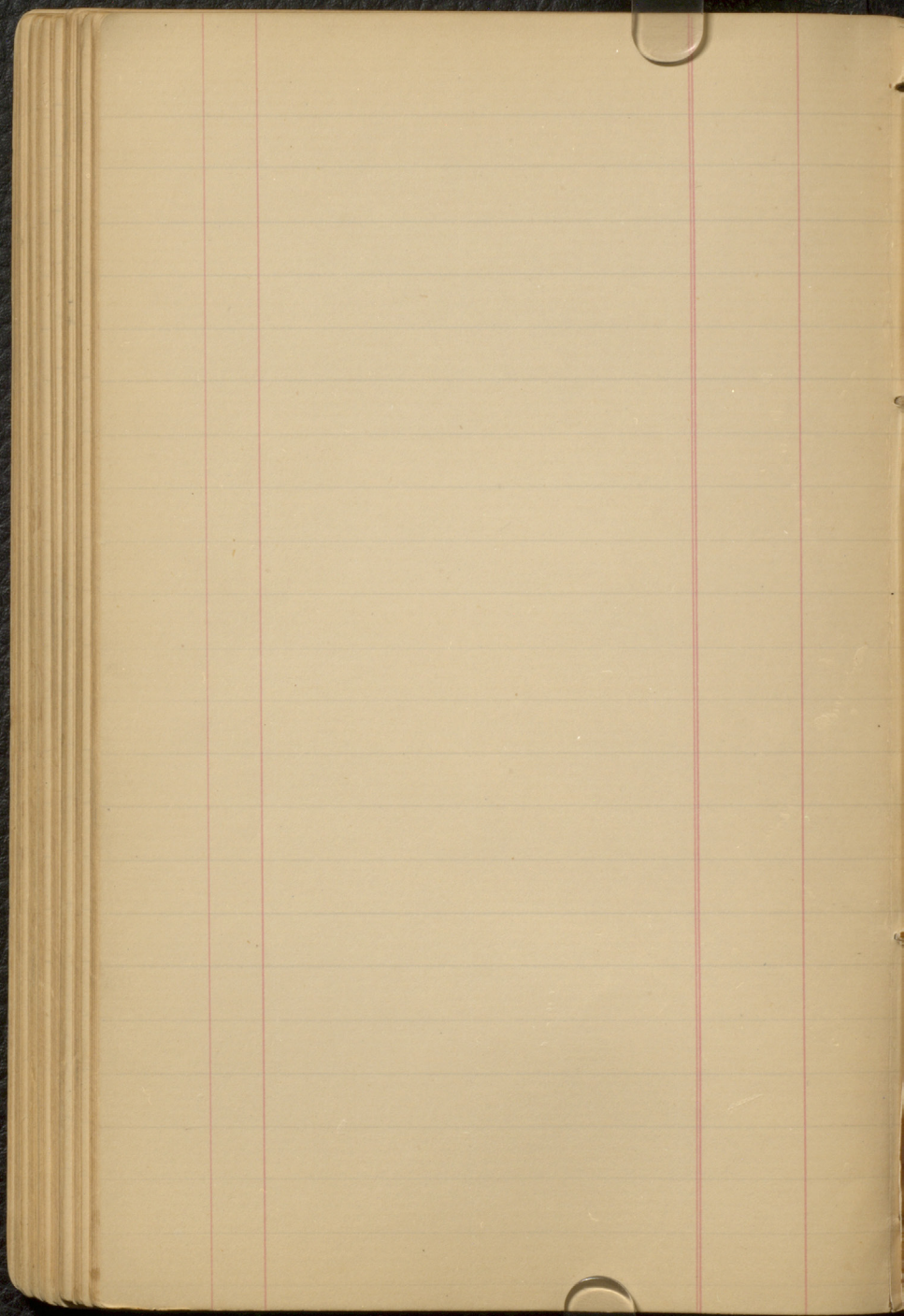












Vouchers-1875-

6 00

15 00

4 50

85-

with Vouchers 377.00

45 00

without do 600.00

4 80

Exploratory Expens 300.00

4 60

\$ 1277.00

30 30

17 00

8 00

1277

2 05-

1100

35 00

177

25 00

42 00

11 00

16 50

2 50

19 40

6 75-

75-

30 00

50 00

\$ 377 00

Repairs to furniture -

Bed Room set rep^d & varnished.

Bird Case stained & table made for Hall
2 feet 6 in
high

Bird Case stand made in dining room
2 feet 6

Varnish furniture in nursery -

Varnish Book stand in sitting room

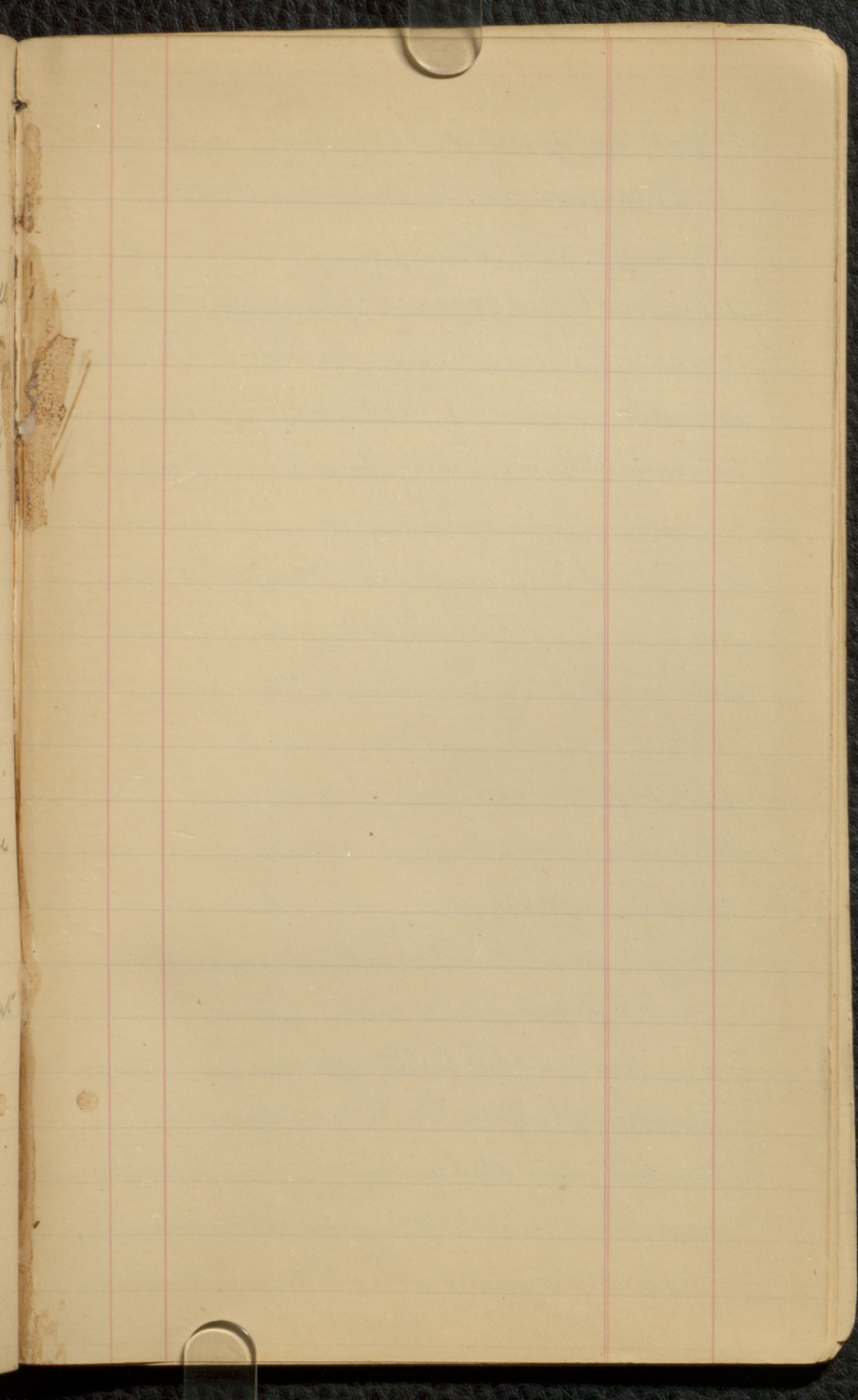
Mend Drawing room center table.

Varnish & repair Dining table.

Varnish upright Drawing room Chair.

Make frame for Egg drawers - in shape
of Cabinet -

Stands for Bird Cases in each case to be about
2 feet 6 inches high & of light material



Report on a ^{some} part ^{of some} Phosphate bearing
rocks, on the Riviere aux Lacs.

Geological Notes on some of the Apatite or
Phosphate of Lime bearing rocks ^{in the mts. north of} the
Riviere aux Lacs, north of Buckingham
village in the township of Buckingham -

Geological Notes on some of the Phosphate of Lime
bearing rocks of the Riviere aux Lacs, Bucking-
ham township - by Henry S. Dennis F.S.S.

Report on a Phosphate of Lime property, situated
on the Riviere aux Lacs, ^{about} north of
Buckingham village -

To Dr J. A. Grant M.D. F.S.S. &c
Ottawa

Sir - Having recently examined a ~~part~~
your property on the Riviere aux Lacs in
the township of Buckingham, I now send
~~you~~ have much pleasure in sending you
a short Report on the Character & Conditions
of the Apatite or Phosphate of Lime deposit

which undoubtedly exist there extensively.

The ~~rocks~~ analyses of specimens of this Phosphatic
are now in progress in the Laboratory of the Poly-
technic Bureau, & the results of these will be sent
you shortly.

The rocks met with throughout the townships of
Buckingham are all highly crystalline & con-
sist ^{chiefly} of varieties of orthoclase feldspar, white crystalline
Amesbury, quartz, & masses in which pyroxene
forms the main constituent. These belong to
the Lower Laurentian formation of the N.E. of Lake
& are the parent rocks of the great deposits of
magnetic iron ore, & Graphite or Plumbago as
also of Phosphate of Lime a more recent discovery.
Recently discovered economic. I shall not at-
tempt here to discuss ^{so into geological details} the ~~character~~ ^{character} of these rocks
respecting the stratigraphical position of these rocks
but would simply state, that we have now abund-
ant evidence to show that the minerals ^{deposits}
contained in them are confined to certain dis-
tinct zones ^{occurring} or in between certain easily recog-
nizable rock bands; and further that these
such

distinctly
Zones ~~have~~ may be easily traced, by means
of the character of the adjacent enclosing rocks,
for considerable distances through the County.
Consequently, it follows, that when ~~the zone or~~
~~band of rock in which one or more deposits~~
of Apatite, iron ore, or plumbago has been
~~met with~~ Consequently, when the geological
structure of a certain section has been made
out, that is, when the various bands of rock have
been separated & traced out & mapped, & the various
deposits of Apatite, iron ore & plumbago put
down in their proper position, ~~it becomes a pretty~~
definite clue is afforded to the other points
where such deposits ^{may} be looked for with
good prospect of success. Thus in Buckingham
I have determined ^{the existence} of three mineral zones, viz -
one of magnetic iron ore, one of Graphite & one of
Phosphate of Lime; the last ^{is} ~~has~~ ^{stratigraphical}
considered, being the subject of ~~the~~
With these general remarks, I now propose
to consider I may proceed to consider the
Phosphate of Lime deposits existing in the

of Buckingham

particular portion of the township in which
you are interested - This consists of the two
front portions of lots 18 & 19 in the 12 range
of the township & not far removed from the shore
of the river and Lake - Respecting it I have

no hesitation in stating as follows, namely: -

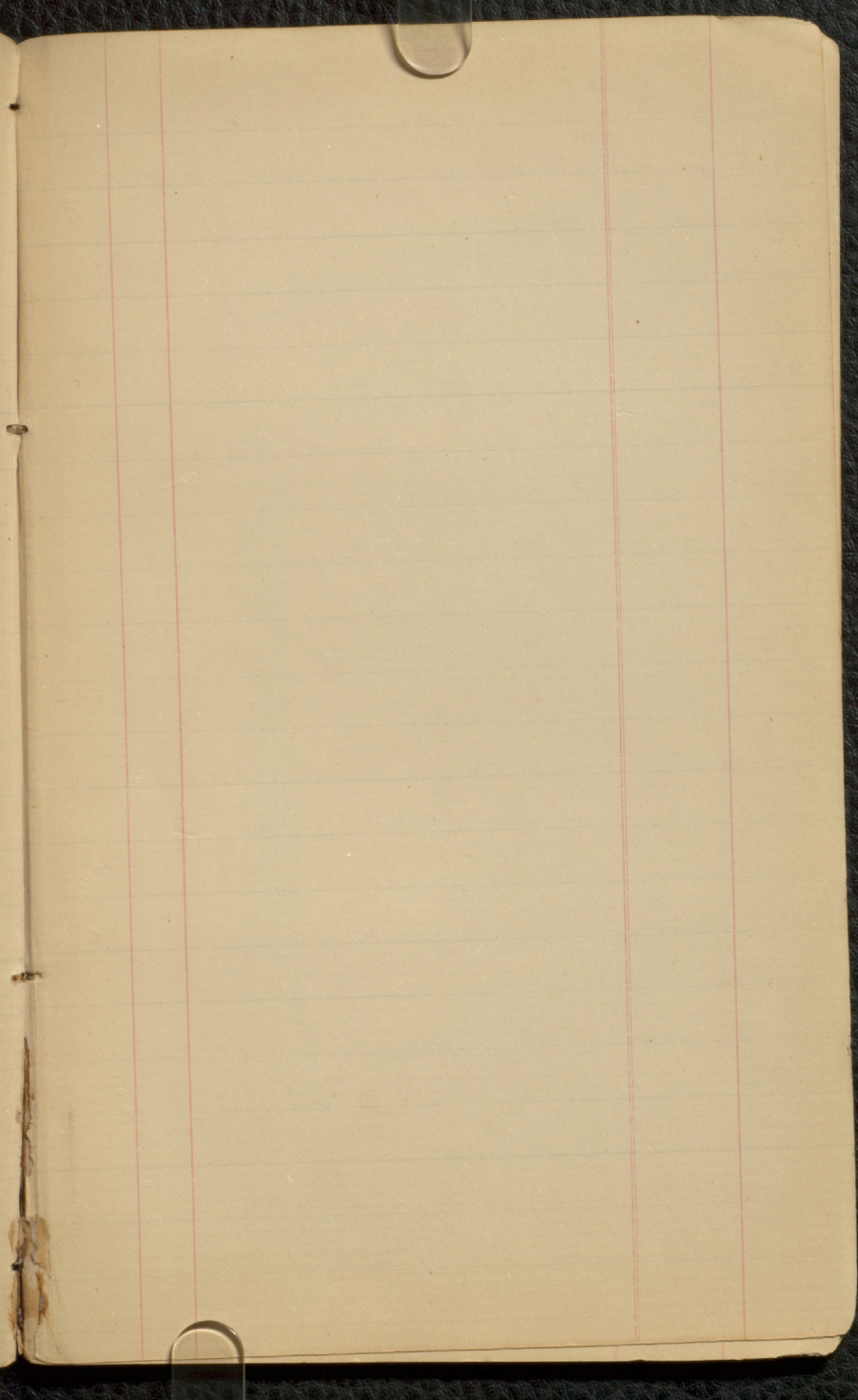
- 1st That the rocks crossing are the proper
rocks in which to expect the Phosphate
of Lime.
- 2^d That they belong to a belt or zone about $\frac{3}{4}$
of a mile in breadth, which ^{may be traced} compasses
for a considerable distance, & which in its
direction from your lots -
- 3 That on these lots, the rocks are particu-
larly well characterized by the mineral &
are disposed in a most favorable manner
for the purposes of mining -
- 4~~th~~ That the extraction & shipment ~~from~~
of the mineral
- 4~~th~~ That the shipment of the mineral
^{could} either during summer or winter, ^{or} could
be effected at a very moderate cost -

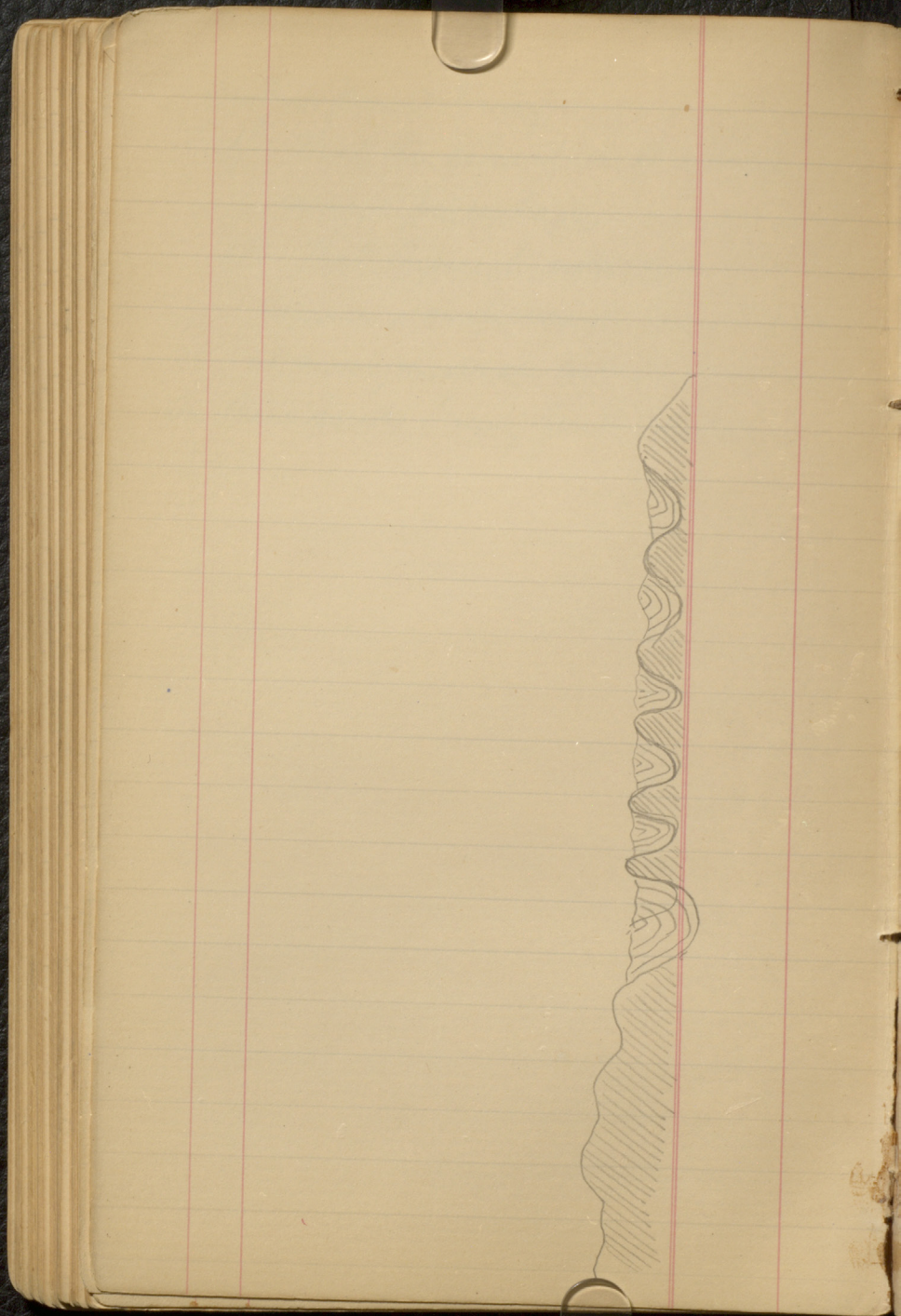
On these points I may

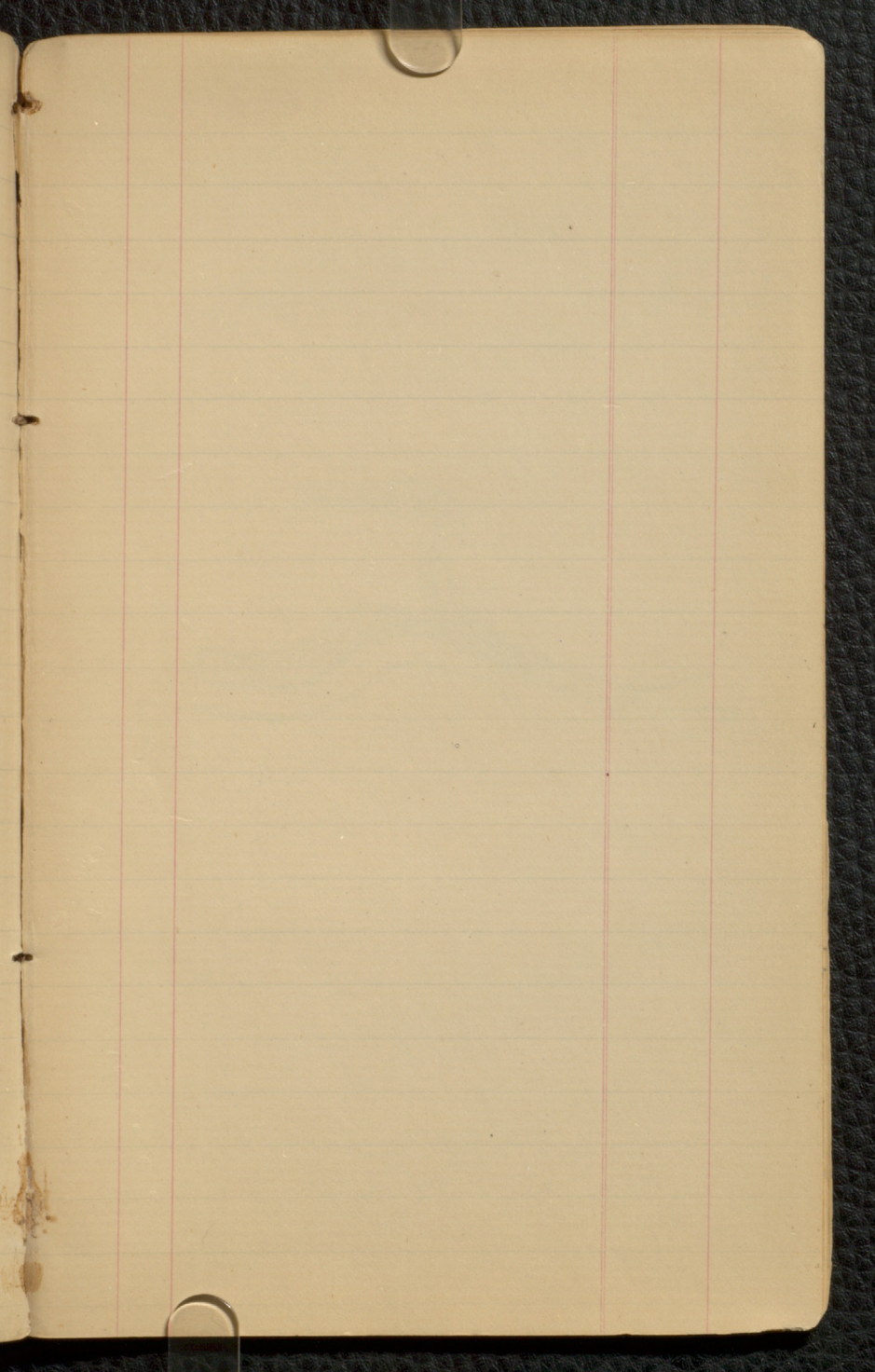
4th That the mineral is of a high average percentage,

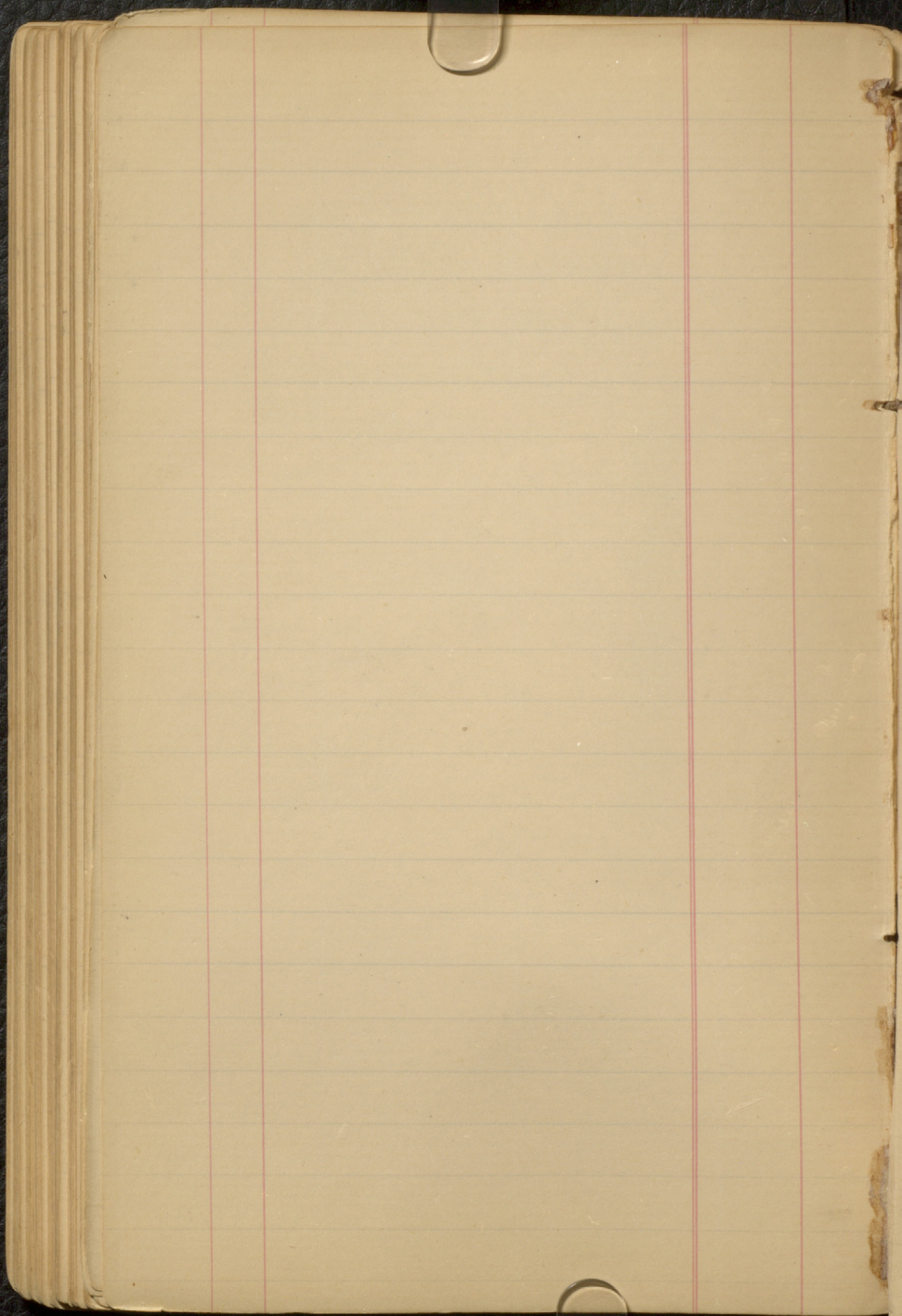
5th That shipment either during the summer or winter months could be effected at a very moderate cost.

On these points I may further enlarge







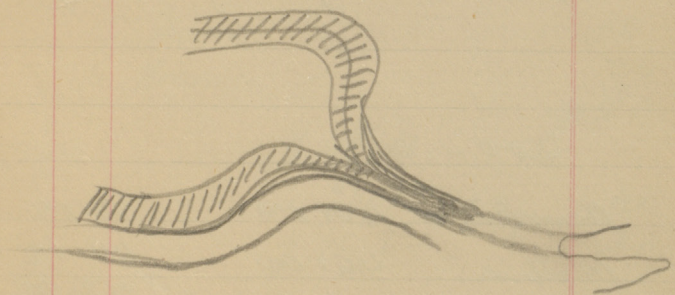


5 00

1 50

1 25

\$ 7 75

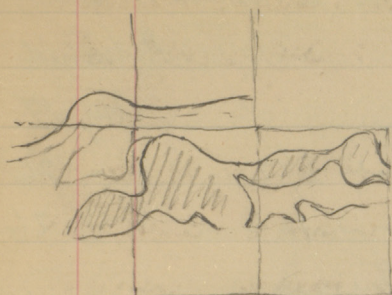


		Frontage	98.00	} - 4851
1354	James Fairie --	40.09 x	97.00	
1355	Henry Vennet	59.03 x	97.00	} - 5709
			96.00	
1356	St James Club House.		94.03	}
			96.00	

1356 St James Club - $\left. \begin{matrix} 94.03 \\ 96.00 \end{matrix} \right\} \times 95.09 - 9108$

200 -

Accounting -	40.00	40.00
M ^c Lean	40.00	40.00
Medical Aid	27.00	27.00
Darson	24.00	15.00
S & L -	25.00	20.00
Prize -	16.00	16.00
James -	15.00	178.00
	<u>187.00</u>	196.00
	200.00	178.00
	<u>187.00</u>	<u>18.00</u>
	13.00	



320 00
 186 00

 \$ 34 00

Dam - 54 00
 Embank - 26 00

 \$ 80 00

\$ 48.00
 31.35-

 \$ 79.35-

	1	40 00	
	2	27 00	
	3	15 00	
	4	20 00	
	5	16 00	
	6	25 00	
	8	20 00	
	9	12 75	
	10	10 50	
			187 75
			186 25
1	M'Laren	40.00	
2	Medical Hall	27.00	
3	Darson	15.00	
4	S & L	20.00	
5	Currie	16.00	
6	Janus	25.00	
7	Foster	30.00	
8	Lavender	20.00	
9	Beard	12.75	\$ 205 75
			10 00
10	Kenny		\$ 215 75

Perth - Board at allans -

Left		Returned
Aug 14		Aug 17 -
" 22	with horse 2 1/2	" 24
" 25	2 halves " 1	" 26
" 28	1 day horse hire	

4 + 2 1/2 + 1 = 7 1/2 days away
 Horse hire = 4 "
 " " " " 1 evening

Mr Kennet 3 meals -	10	50
Pr Kennet "	10	50
	<hr/>	<hr/>
	21	00

Alphonse two meals (meals)

21.00
 3.50

 17.50
 4.00

 21.50

16 1/2 + ~~8 1/4~~
 8 1/4

 24 3/4
 28 +

 52 3/4
 14

 38

9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20.
 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31

Left -

Returned

| | | | |
|------|----|------------------------|--------|
| Aug | 31 | with horse - 3 days - | Sept 2 |
| Sept | 5 | 1 horse 1 day | |
| Sept | 6 | 1 horse 1 day | |
| " | 7 | 1/2 day. | |
| " | 8 | 1 day | |
| " | 9 | 1/2 day. returned home | |
| " | 18 | 1 day horse | |
| " | 19 | " " | |
| " | 21 | " " | |
| " | 22 | " " | |
| " | 25 | 1 day horse | |
| " | 26 | 1/2 day " | |
| " | 27 | 1 " " | |
| " | 28 | 1 " " | |
| " | 29 | 1 " " | |
| " | 30 | 1 " " | = |

Total for Peepster 16 1/2 days

Oct-

2 1 hour all day

3 at home

4 1 hour 1 day

5 " "

6 " "

7 " "

8 at home

9 1 hour 1 day -

10 1 hour 1/2 day -

11 at home

12 1 hour 1 day

13 1 hour 1 day -

14 " "

15 Sunday

16 1 hour 1 day -

17 1 " 1 "

= 10 1/2 days

\$ 15 + 75 =

15 75

Board for 1 - 2 weeks 4 days

" " " "

4 weeks - 3.50

17 50

Total for Oct -

\$ 33 25

| | | |
|------------------|--------------|------------|
| amt out forward. | 33 | 50 |
| -- | | 15- |
| - | | 20 |
| | <u>\$ 33</u> | <u>85-</u> |

| | |
|-----------------|--------------|
| <u>2/17.50</u> | |
| 8.75- | |
| 5.00 | |
| <u>\$ 12.75</u> | due Survey - |

Paid - Hfr.

| | |
|------------------|--|
| 924.38 | |
| 18.00 | |
| <u>\$ 906.38</u> | |
| 850.00 | |
| <u>\$ 106.38</u> | |
| 57.00 | |
| 38.00 | |
| <u>\$ 195.38</u> | |
| 7.00 | |
| 4.00 | |
| <u>\$ 206.38</u> | |

Arrived Perth Tuesday night
Left " Wednesday morning with horse
Returned " Saturday night

Sunday in Perth -

Left " Monday morning with horse
Returned " Wednesday night

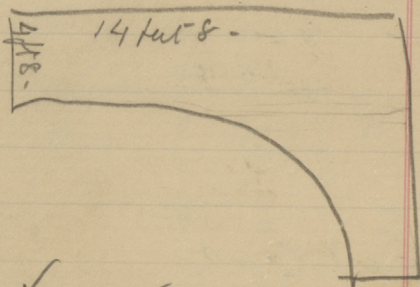
Thursday in Perth -

Friday in Perth

Saturday do

14 lbs Biscuit -

\$ 11 65



Vennus

4 feet 8 inches X

Vennus

14 feet 8 inches X 4 feet 8 inches = 66

Passage

15
81

Fuel

Sept. 22nd

\$ - -

| | |
|--|------|
| 1 load kindling wood | 2 50 |
| 2 loads coke | 4 00 |
| 7 hrs Coal (8.75 [¢] per ton) | |

Billings

11 feet x

books

| |
|---------------|
| 50.00 |
| <u>102.00</u> |

Medical Hall

27 00

Dances

24 00

42 feet - 6

Berlin

13 feet 6 x 12 feet 6 = 170

Richardson -

16 feet - 9 feet 1 inch = 145

An Abstract of a Report on Exploration
 through portions of the Counties of Hants
 Addington & Frontenac Leeds & Lincoln
 Counties -

Sir - In accordance with your instructions
 I spent the summer of 1871 - in a further
 examination of the Economic Minerals

Sunday in 1871
 Saturday do

14 lbs Biscuit -

\$ 11 65-

146.58-

Harness -

206 38

50 00

Proms

156 38

16.00

Armstrongs

140.38

40.00

100.00

48.00

100.38

27.00

25.00

73.00

23.00

25.00

48.00

Description of Vines -
 Width - Composition - Structure -
 Mill -

1875 - Lees - 20.00

Palmer 22.00

Berry 10.00

Zoster 50.00

102.00

Medical Hall 27 00

Dansen 24 00

Wendy - 10 00

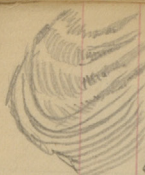
James - 25 00

Zoster 39 00

125 00

Prowse - 16.00

M^cLaur - 40.00



Sulphate Banya -
 Kisth. Lt -
 vein runs into lake -

| | | |
|--------|--------------|---------------|
| | 941.88 | 889.88 |
| Less - | <u>45.00</u> | <u>800.00</u> |
| | 896.88 | 89.88 |
| Less | <u>7.00</u> | 5-2.00 |
| | 889.88 | 38.00 |
| | | <u>11.00</u> |
| | | 196.88 |

1 Table - 3.00
 4 Chairs - 2.00
 2 tubs - 1.40
\$ 6.40

| | |
|--|---------------|
| | 896.88 |
| | 38.00 |
| | 5-2.00 |
| | <u>10.00</u> |
| | 996.88 |
| | <u>800.00</u> |
| | \$ 196.88 |

2 hands -
 -Mule Sugar -
 -tea -

47.00
 150.00
197.00

Mitchell -
 Grant - 200.00
 Fitzgerald -
 Stuart -
 Fellows - 40.00
 McNaughton - 25.00
 Louie - 25.00
30.00
 145.00

67.00
 20.00
\$ 47.00

15 -
 2 -
30

37
 15 -
 45 -
 30
127

1866-69 - 1
 69-70 - 2
 70-71 - 3 \$5.00
 71-72 - 4
 72-73 - 5
 73-74 - 6 10.00
 Deer + Turp - 3.00
 Wild Goose - 8.00
 Harness - -
\$26.00
 3.00
 Pesticide - \$21.00

50.00
25.00
75.00

2/1000

83.4
12
99.6

83.33
2
196

10

10 April 72
3 Bars - 15
1/2 Hghs - 45
Hessians - 5
65
200 - 50
Brosk - 25
Zacharia - 25
165

-119.88
-52.00

171.88
38.00
90

75
12
900

209.88
11.00

1220.88

919.88
800.00
119.88

32
24

8
919.88
52.00

1021.88
800.00
221.88

971.88
39.00
7.00
4.00

1021.88

Aug 1871

Gillean Mine - 100 tons extracted
by Mr Archer White - Mining ^{Super}
& put through the Williams Mill
yielded six dollars per ton -

opening 52 feet length
5-6 " wide

88 - Sold over the shaft on
but wall -

48.0
1.20
52.0

3/100
33.



33
12
6

66

24

10/80

264

12 | 400
8 33 3/4

132

118400
33

3/10 mile

330
3
99

= 8 67

3/10

95
33
42

24

= 1584 per

2 | 1584
792

66

50

5280

2

10560



