

WASC 1502

1502.

PERME Library

With the Librarian's Compliments

Would you care to keep these or  
give to Dr Owen as suggested  
in the attached?

The Library,  
Royal Armament Research and  
Development Establishment  
Fort Halstead  
Sevenoaks, Kent.

Gillian Granger

13/1/84

Knockholt 3222  
Ext.

Mr D Porter in the TIO office  
wondered if you would find these  
interesting. They came from EM3

Mr. Porter.

A marvellous set of antiquities  
which should be preserved. They  
are clearly propellant orientated  
and I would have thought that Dr Allen  
Owen PERME would be very interested

A little off my field of interest but I  
trust somebody will preserve them for  
posterity. Beautiful work

(N) 11/1

FRENCH POWDER.



26a *BLANCHE NOUVELLE. Improved French Powder*

*Transverse section.*

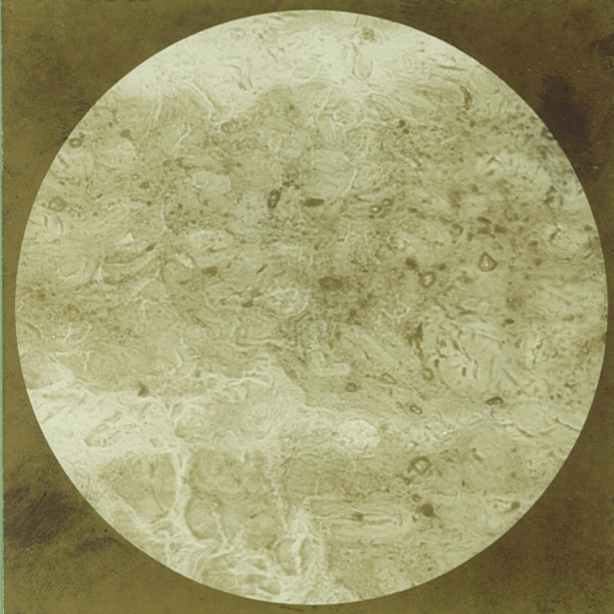
× 250.



26b *BLANCHE NOUVELLE. Improved French Powder*

*Longitudinal section.*

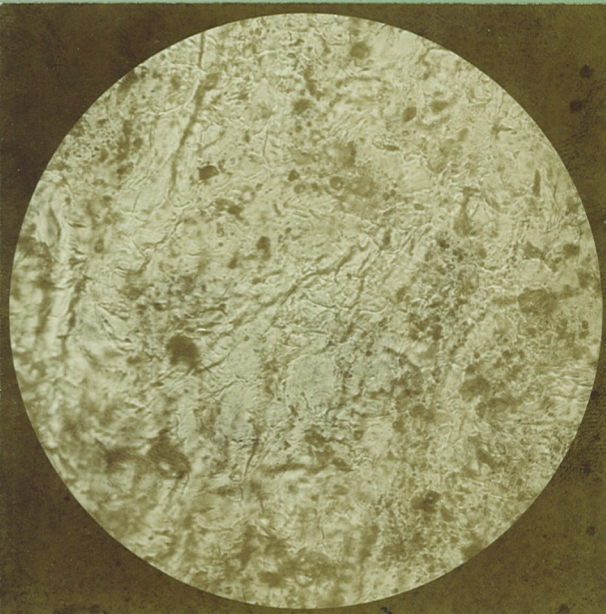
× 250.



12a *BLANCHE TIR RAPIDE. (French Powder.)*

A mixture of various sizes of *BLANCHE NOUVELLE.*  
*Transverse section.*

× 250.

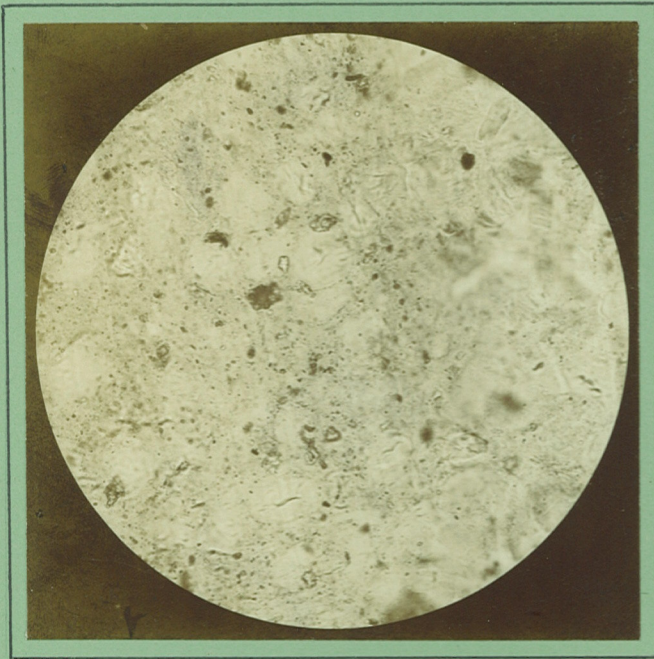


12b *BLANCHE TIR RAPIDE. (French Powder.)*

A mixture of various sizes of *BLANCHE NOUVELLE.*  
*Longitudinal section.*

× 250.

PYROCOLLODION.

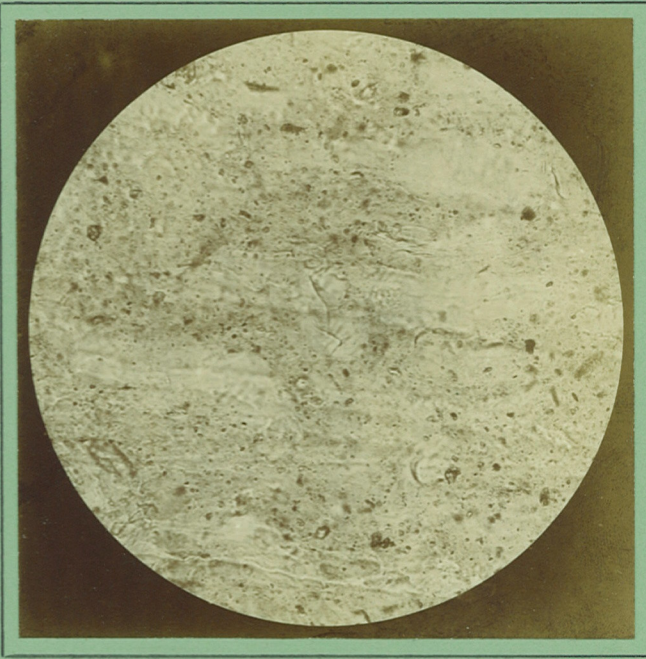


24a PYROCOLLODION TAPE.

Gelatinized with Ether and Alcohol.  
(Mixed as for solubilities.)

*Transverse section.*

× 250.



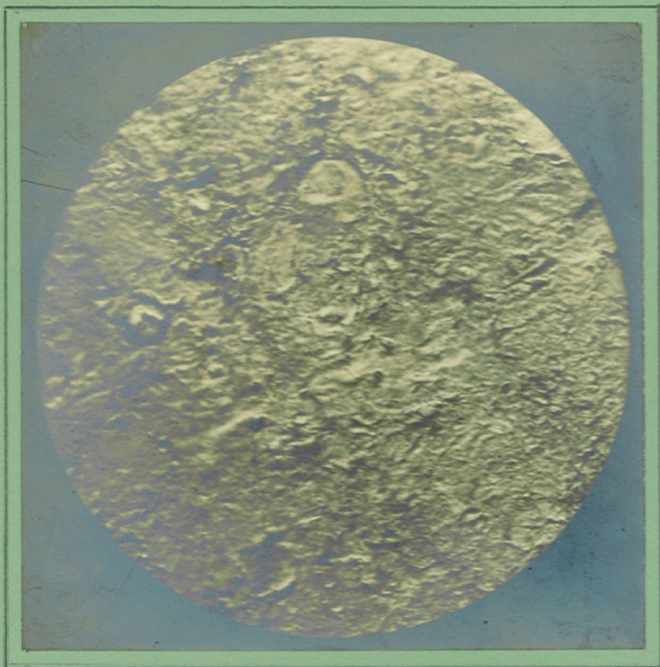
24b PYROCOLLODION TAPE.

Gelatinized with Ether and Alcohol.  
(Mixed as for solubilities.)

*Longitudinal section.*

× 250.

*CORDITE.*

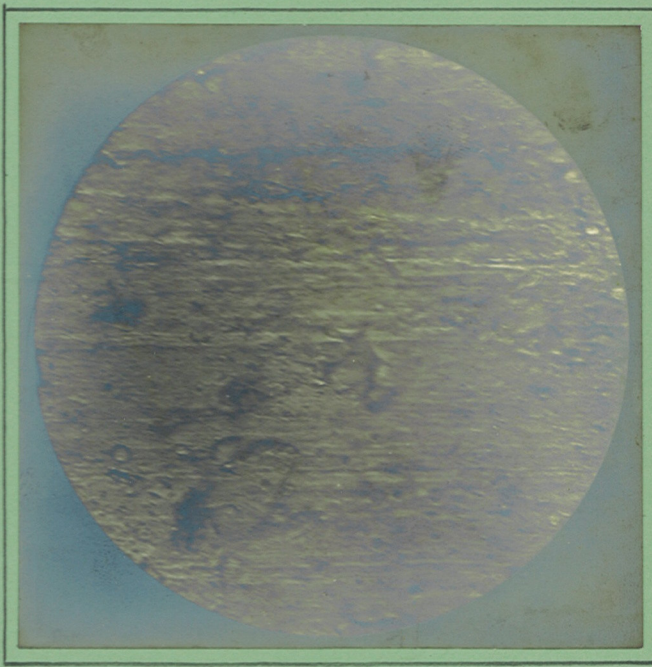


32 *CORDITE. Service, tubular, 6.*

58 : 37 : 5.

*Transverse section.*

× 250.

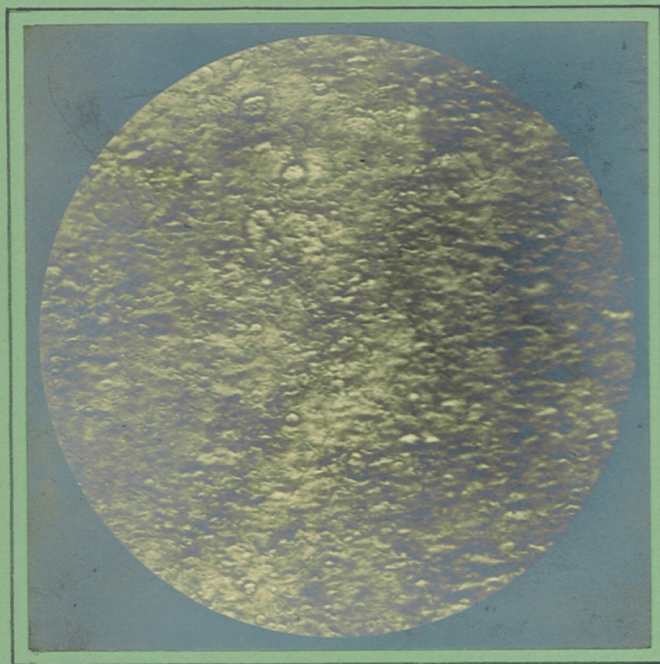


33 *CORDITE. Modified, tubular, 7.*

44 : 51 : 5.

*Transverse section.*

× 250.



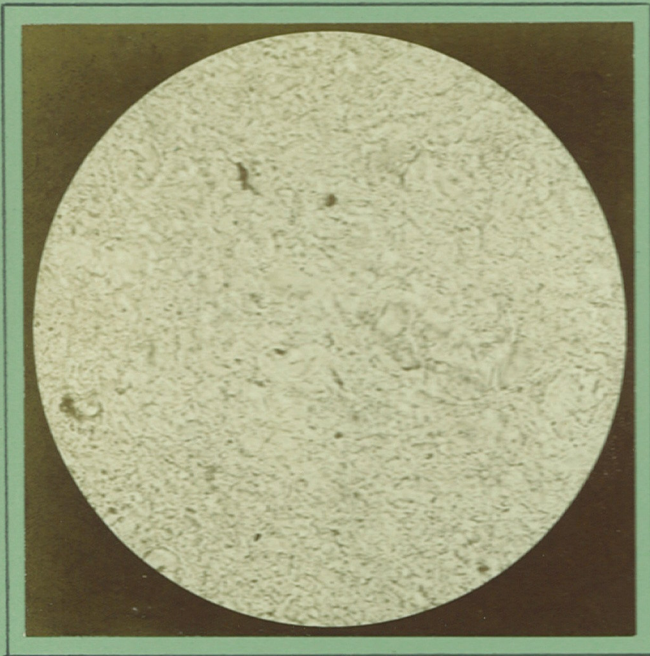
34 *CORDITE. Modified, tubular, 8.*

30 : 65 : 5.

*Transverse section.*

× 250.

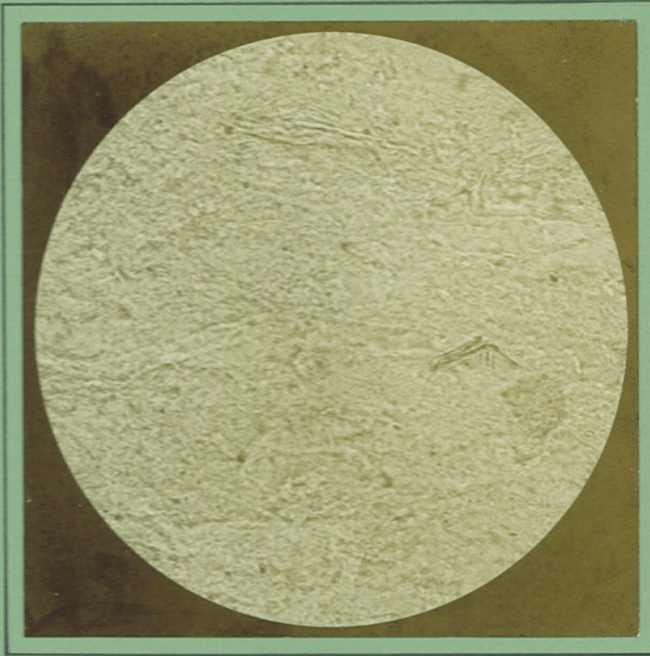
*CORDITE.*



16a *CORDITE. Size 30.*

*Transverse section.*

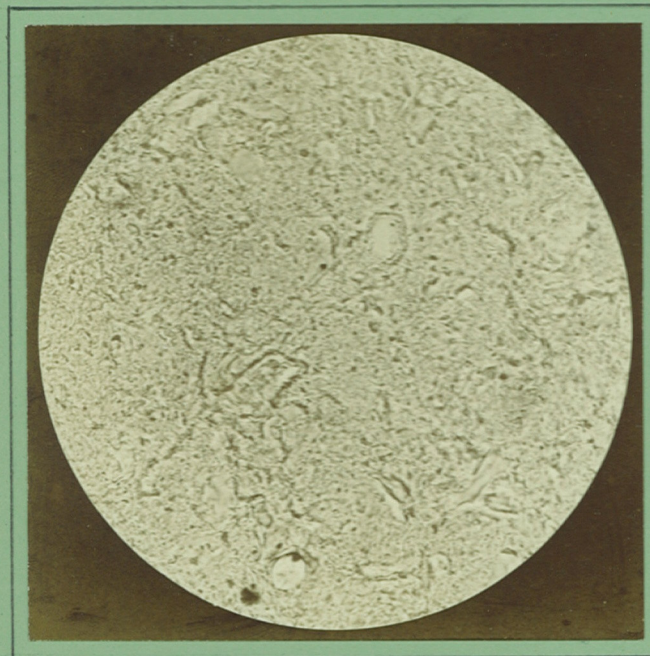
× 250.



16b *CORDITE. Size 30.*

*Longitudinal section.*

× 250.

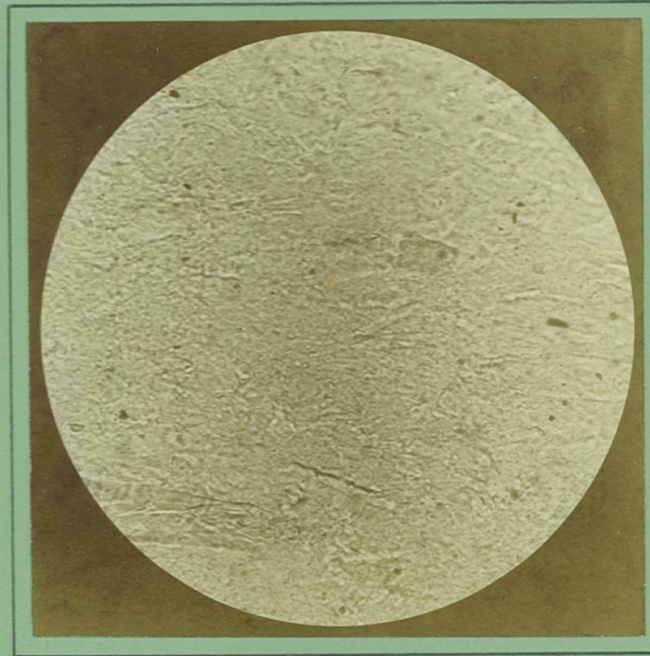


21a *CORDITE. Size 30/24.*

June, 1900.

*Transverse section.*

× 250.



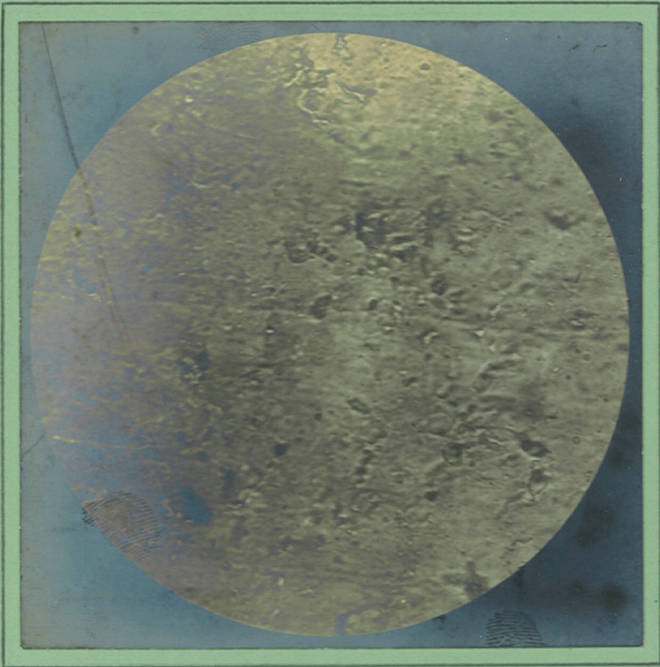
21b *CORDITE. Size 30/24.*

June, 1900.

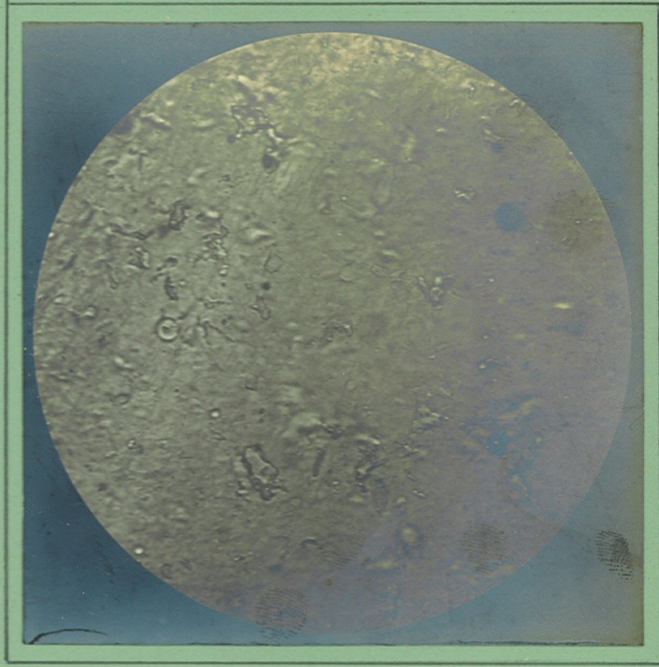
*Longitudinal section.*

× 250.

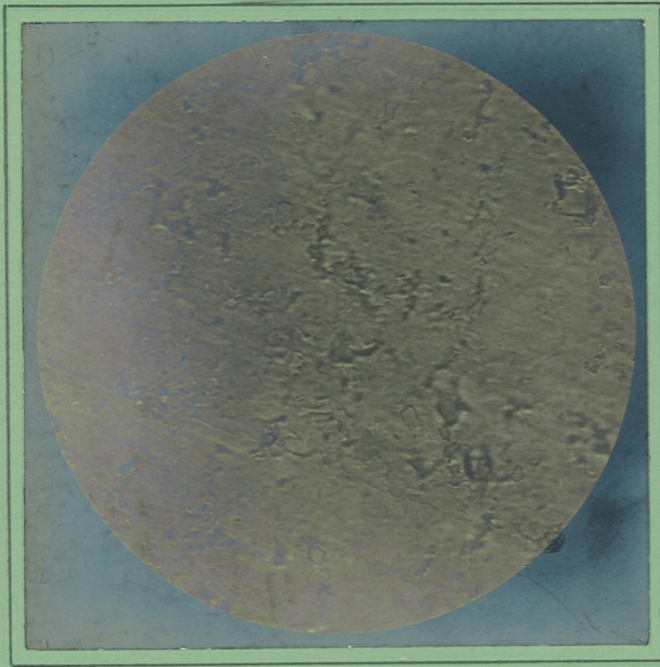
*CORDITE.*



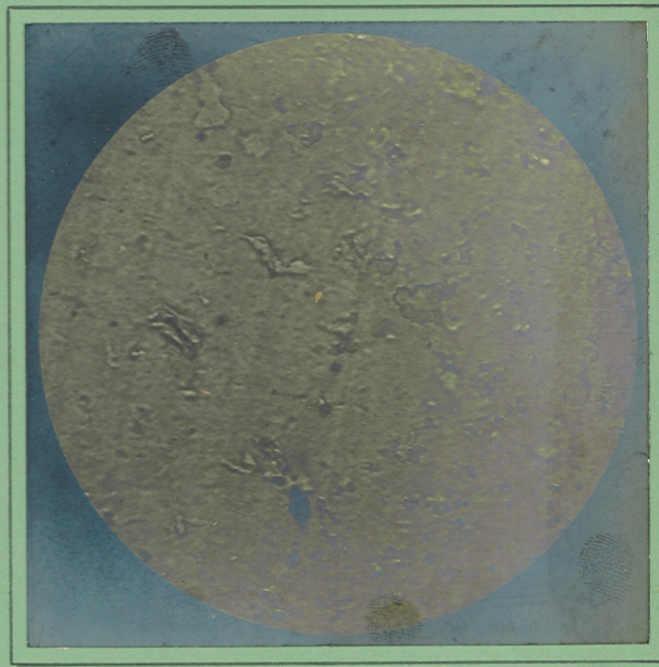
35 *CORDITE. Size 30/24.*  
Five hours slow speed.  
*Transverse section.* × 250.



36 *CORDITE. Size 30/24.*  
Five hours fast speed.  
*Transverse section.* × 250.



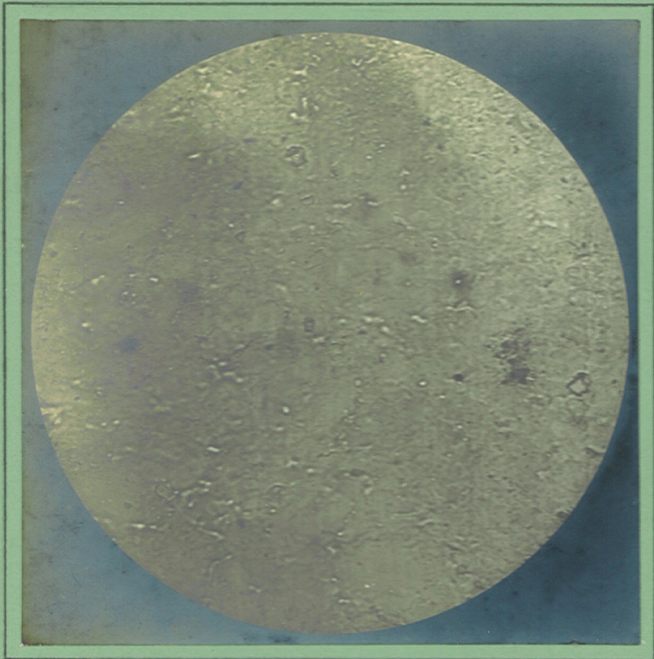
37 *CORDITE. Size 30/24.*  
Seven hours slow speed.  
*Transverse section.* × 250.



38 *CORDITE. Size 30/24.*  
Seven hours fast speed.  
*Transverse section.* × 250.



*CORDITE.*



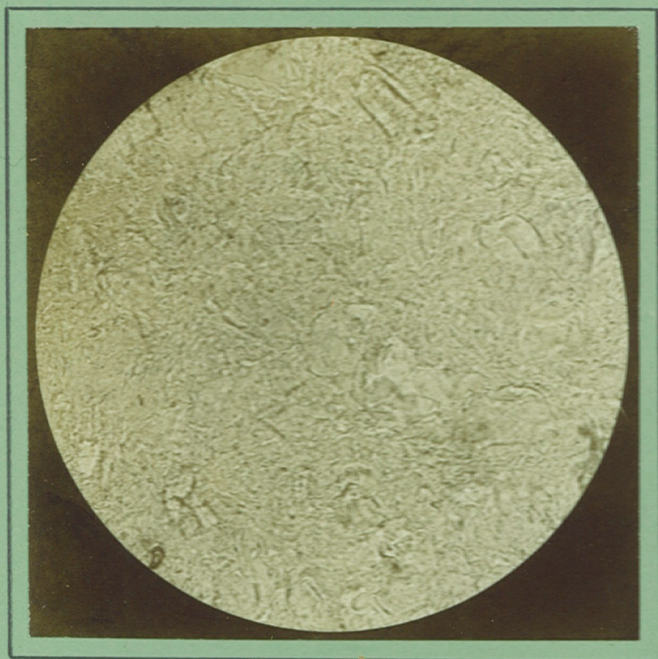
39 *CORDITE. November, 1890.*

Original sample, made at Woolwich.

*Transverse section.*

x 250.

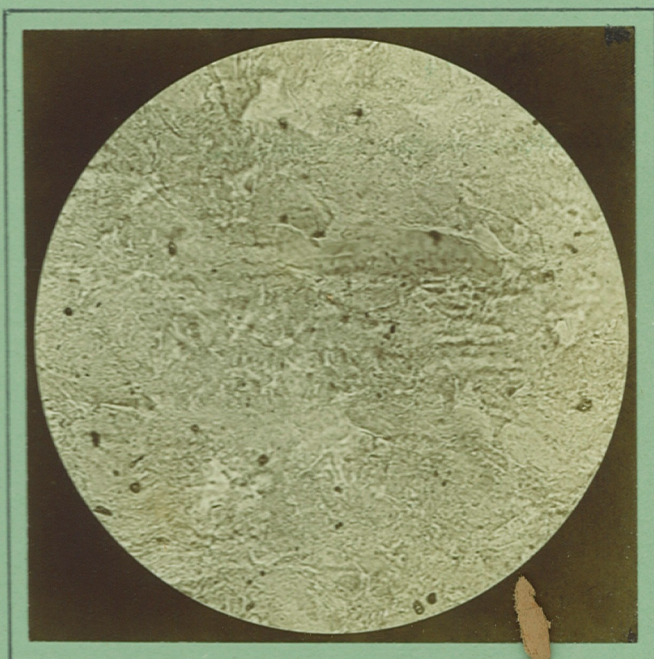
CORDITE.



8a CORDITE, Standard. Size 5. May, 1900.

*Transverse section.*

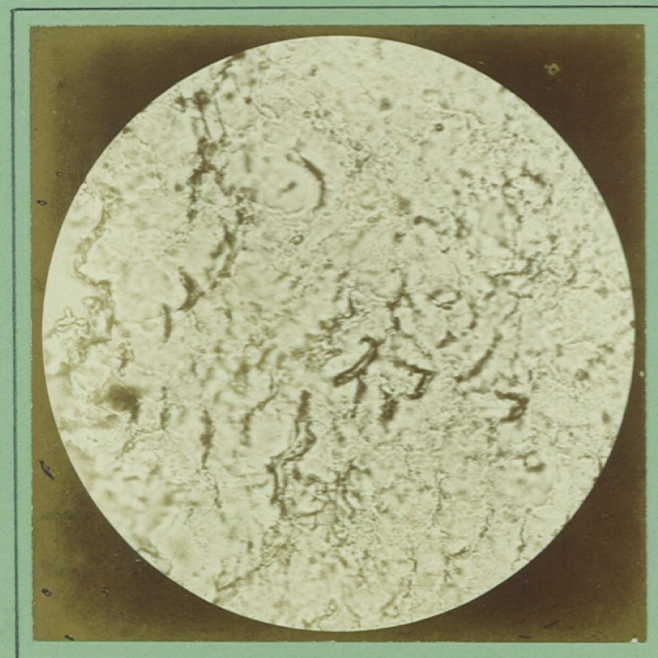
× 250.



8b CORDITE, Standard. Size 5. May, 1900.

*Longitudinal section.*

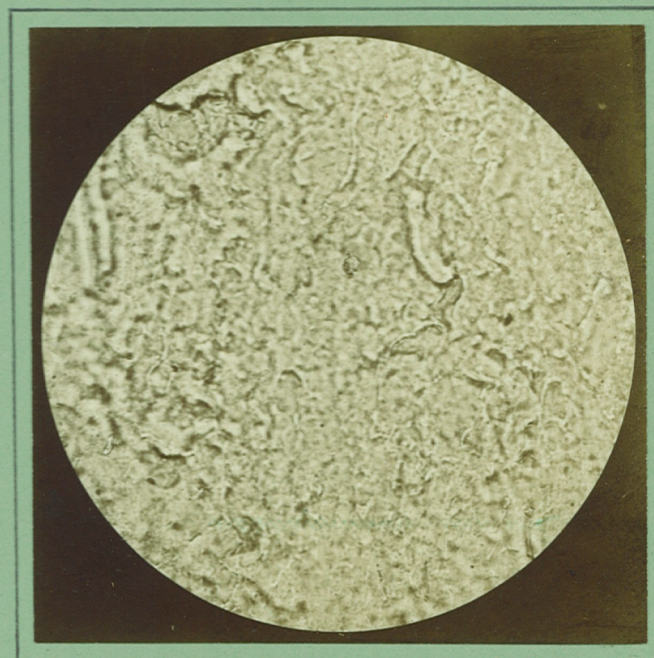
× 250.



9a CORDITE, Standard. Size 7.5. March, 1896.

*Transverse section.*

× 250.

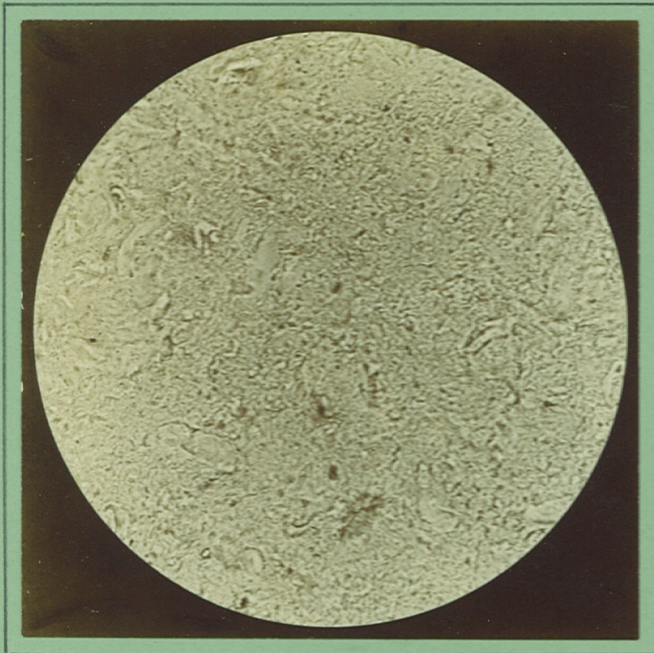


9b CORDITE, Standard. Size 7.5. March, 1896.

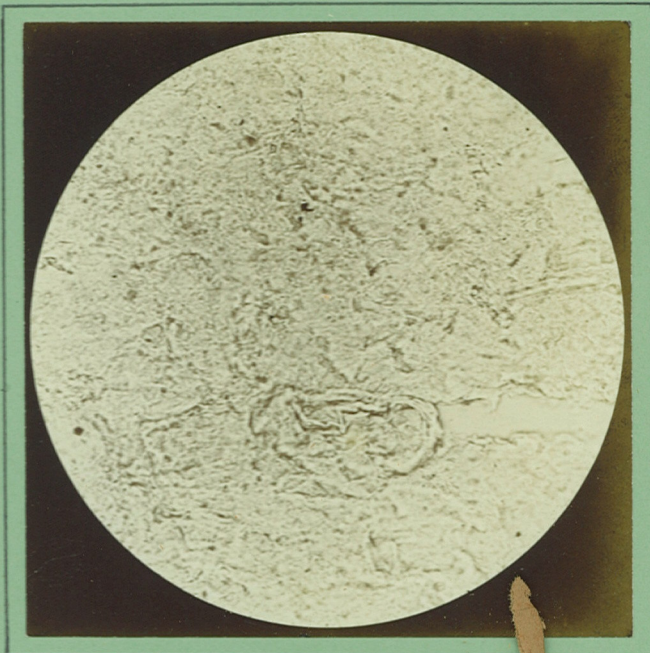
*Longitudinal section.*

× 250.

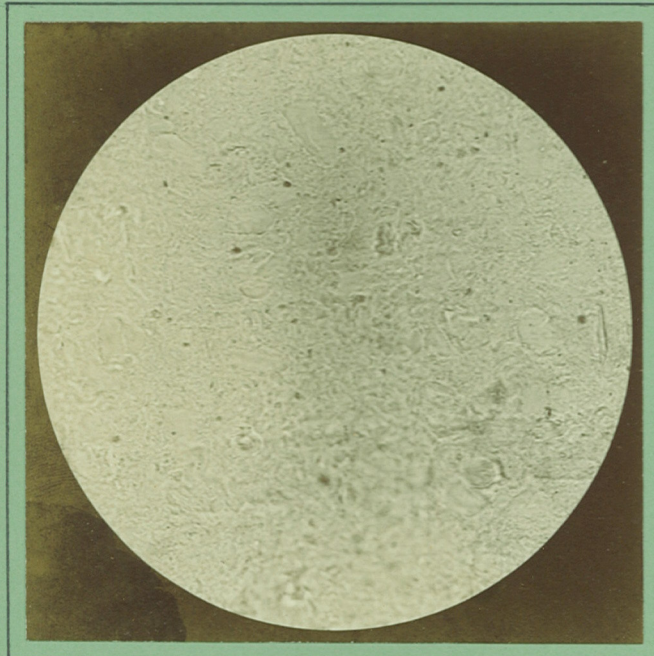
*CORDITE.*



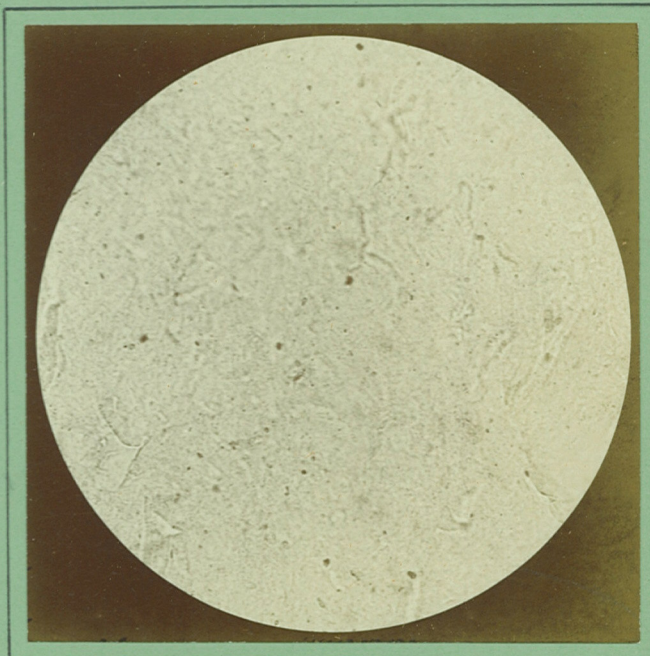
29a *CORDITE. Size 30/24.*  
O. C. Programme, 1258. With Vaseline.  
*Transverse section.* × 250.



29b *CORDITE. Size 30/24.*  
O. C. Programme, 1258. With Vaseline.  
*Longitudinal section.* × 250.

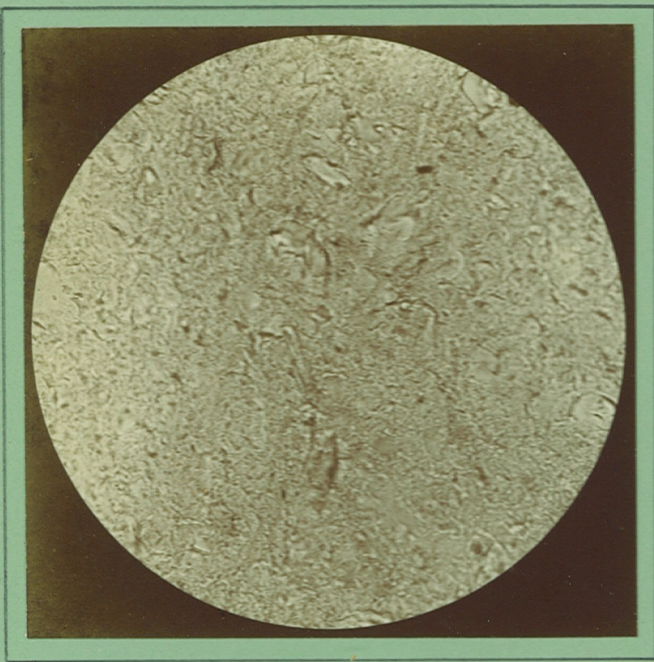


28a *CORDITE. Size 30/24.*  
O. C. Programme, 1258. Without Vaseline.  
*Transverse section.* × 250.



28b *CORDITE. Size 30/24.*  
O. C. Programme, 1258. Without Vaseline.  
*Longitudinal section.* × 250.

**CORDITE.**

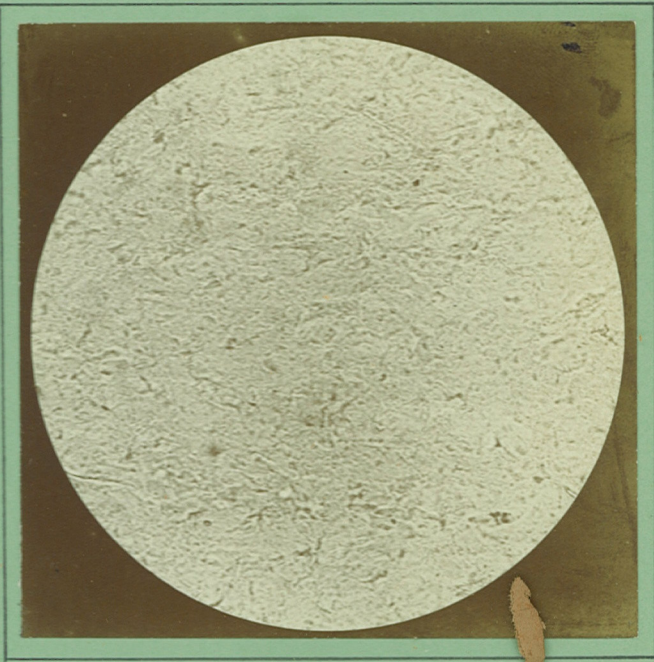


22a *CORDITE. Size 30/24.*

Exposed on tray in stove at 100° F. since 8/1/96.

*Transverse section.*

× 250.

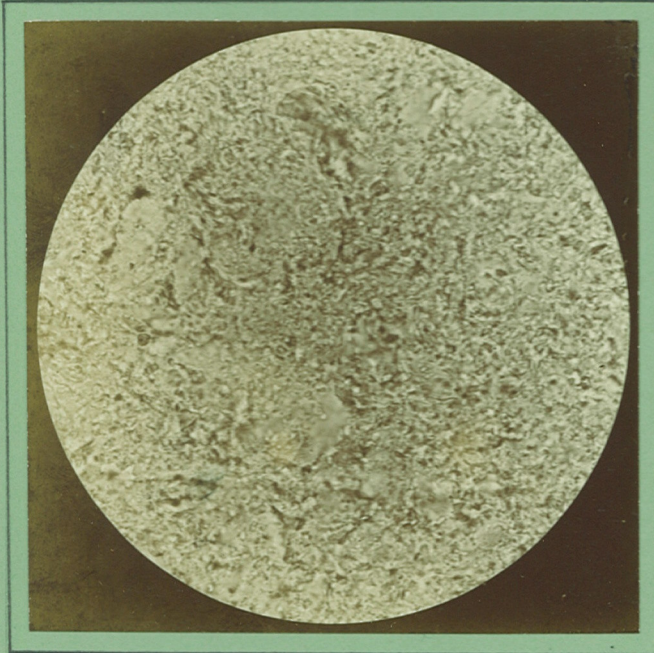


22b *CORDITE. Size 30/24.*

Exposed on tray in stove at 100° F. since 8/1/96.

*Longitudinal section.*

× 250.

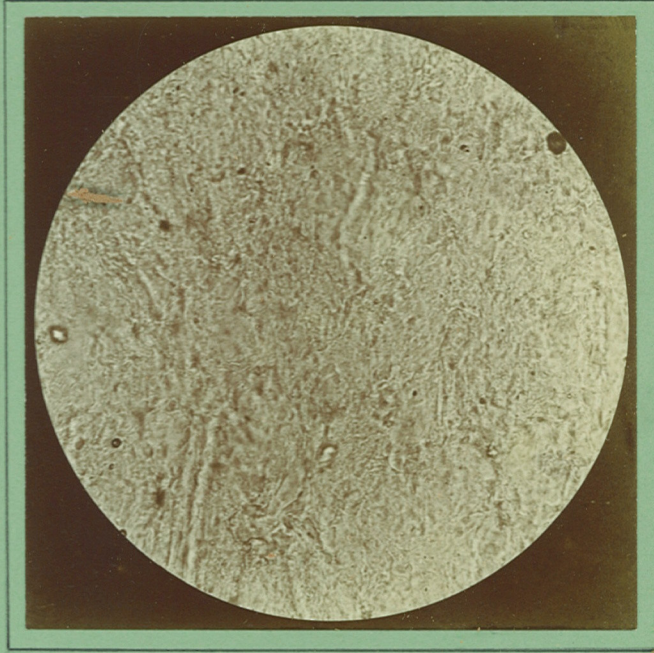


20a *CORDITE, Tubular.*

Burst open when burnt in air.

*Transverse section,*

× 250.



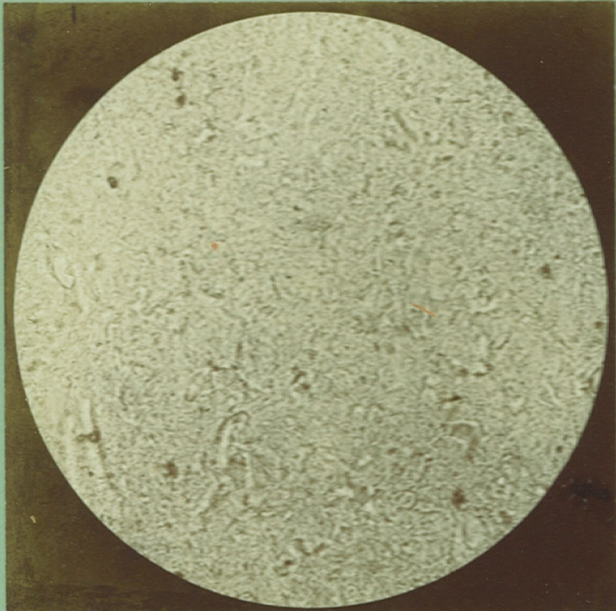
20b *CORDITE, Tubular.*

Burst open when burnt in air.

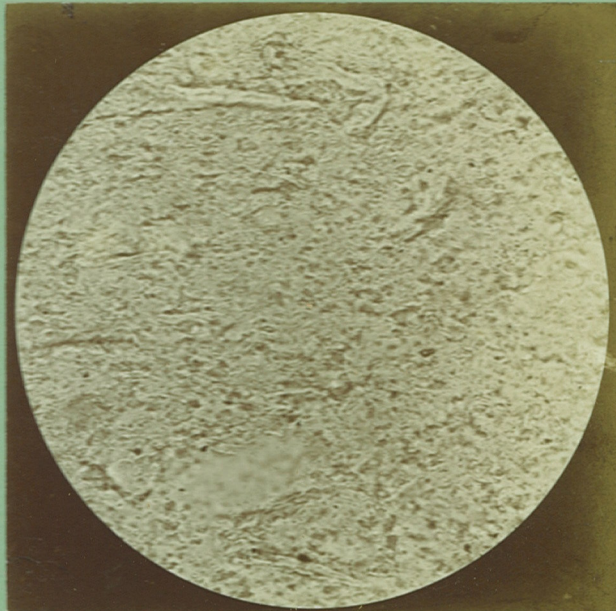
*Longitudinal section.*

× 250.

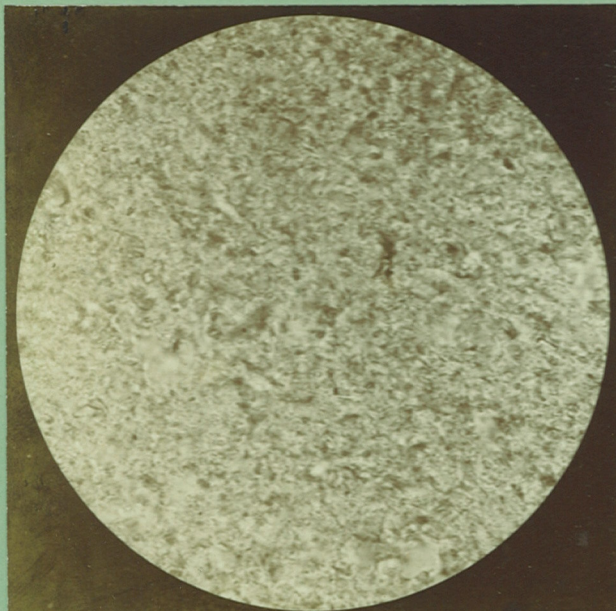
*CORDITE.*



14a *CORDITE, Standard. Special Size.*  
Kept at 81°—87° F. from 21/1/97 to 19/12/99.  
*Transverse section.* × 250.



14b *CORDITE. Special Size.*  
Kept at 81°—87° F. from 21/1/97 to 19/12/99.  
*Longitudinal section.* × 250.

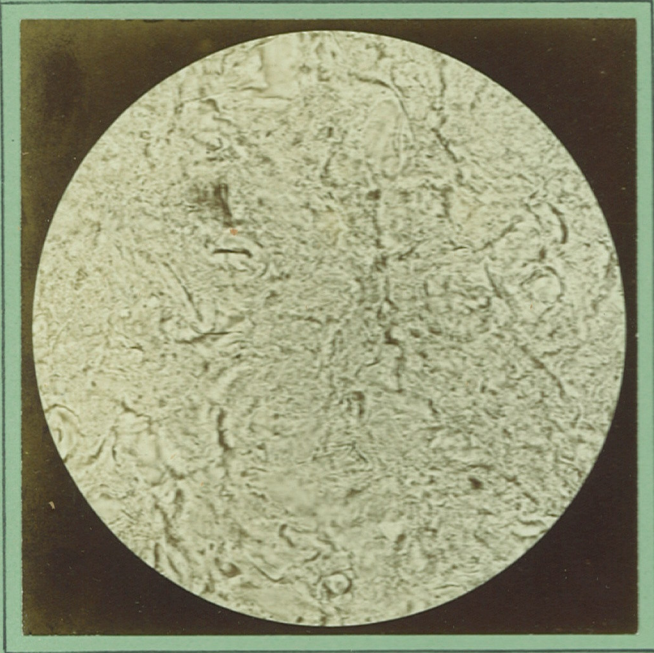


15a *CORDITE, Standard. Special Size. Jan., 1897.*  
Kept at ordinary Temperature till July, 1900.  
*Transverse section.* × 250.

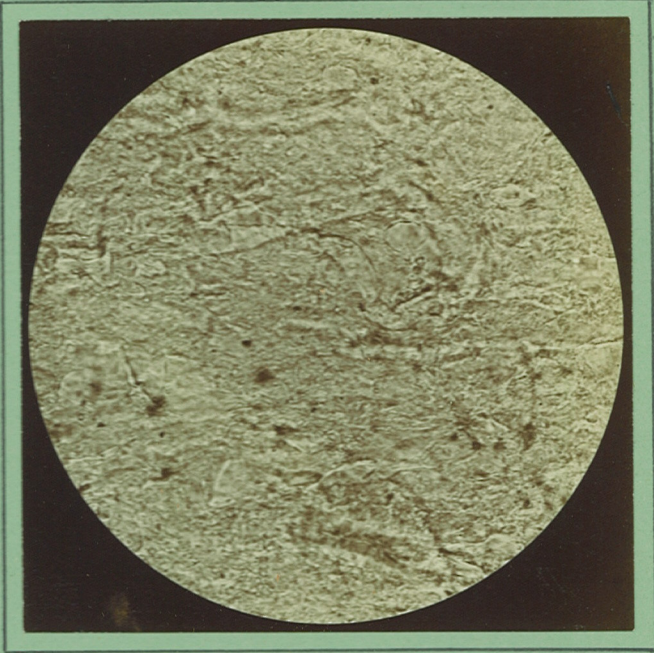


15b *CORDITE, Standard. Special Size. Jan., 1897.*  
Kept at ordinary Temperature till July, 1900.  
*Longitudinal section.* × 250.

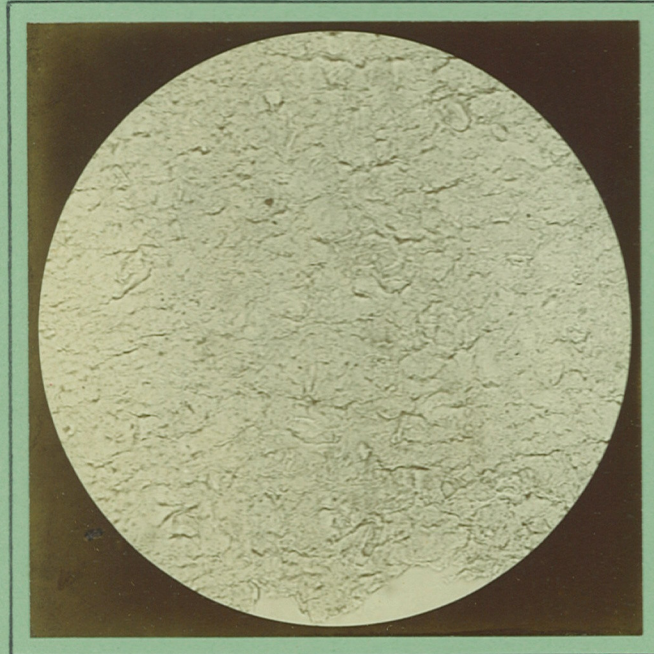
CORDITE.



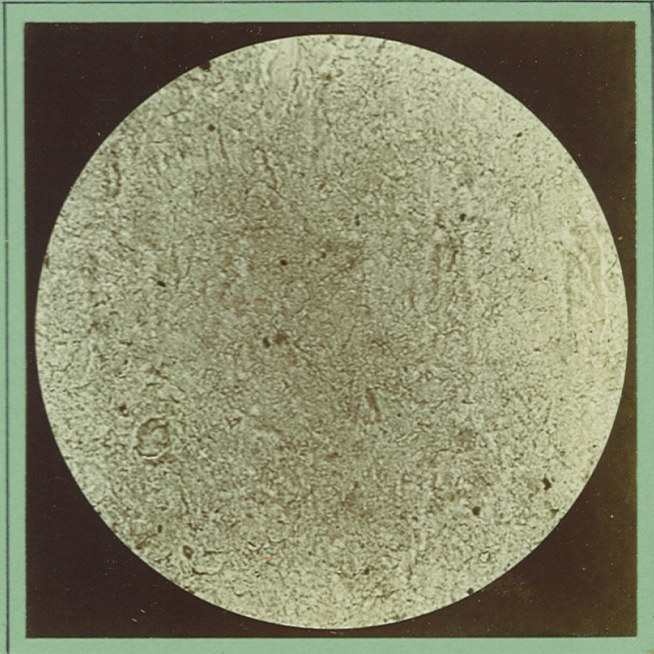
27a *CORDITE, Undried.* July, 1900.  
*Transverse section.* × 250.



27b *CORDITE, Undried.* July, 1900.  
*Longitudinal section.* × 250.

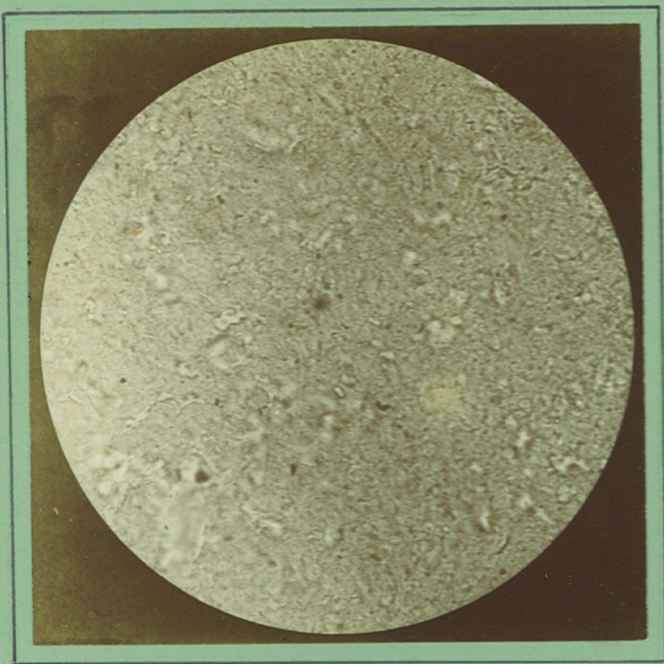


6a *CORDITE, Spanish.*  
*Transverse section.* × 250.

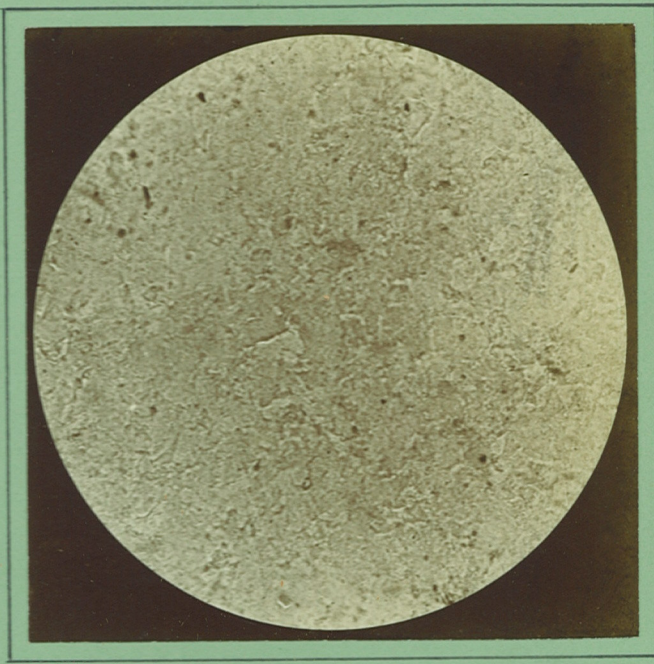


6b *CORDITE, Spanish.*  
*Longitudinal section.* × 250.

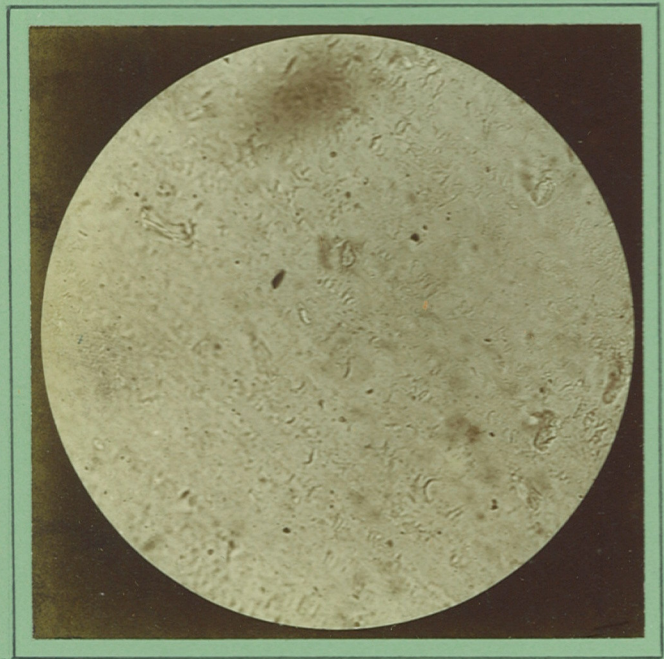
*CORDITE.*



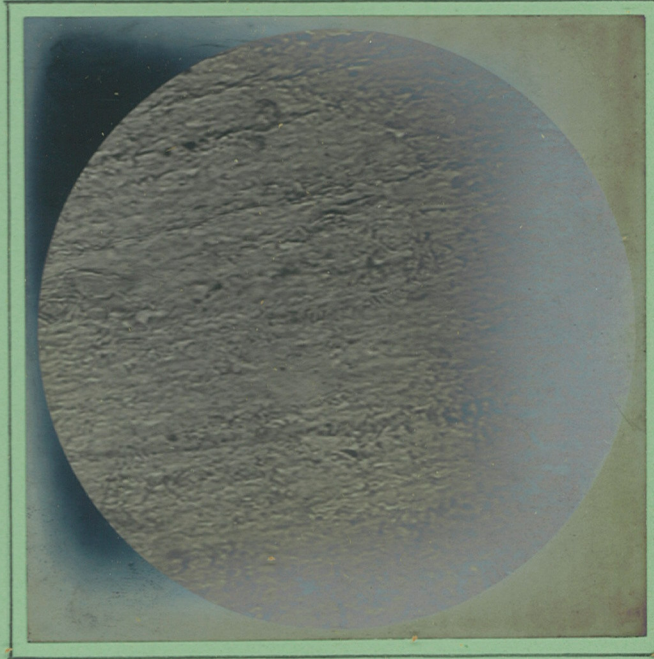
11a *CORDITE.* (*Chilworth Powder Co.*) June, 1900.  
Made by wet process.  
*Transverse section.* × 250.



11b *CORDITE.* (*Chilworth Powder Co.*) June, 1900.  
Made by wet process.  
*Longitudinal section.* × 250.

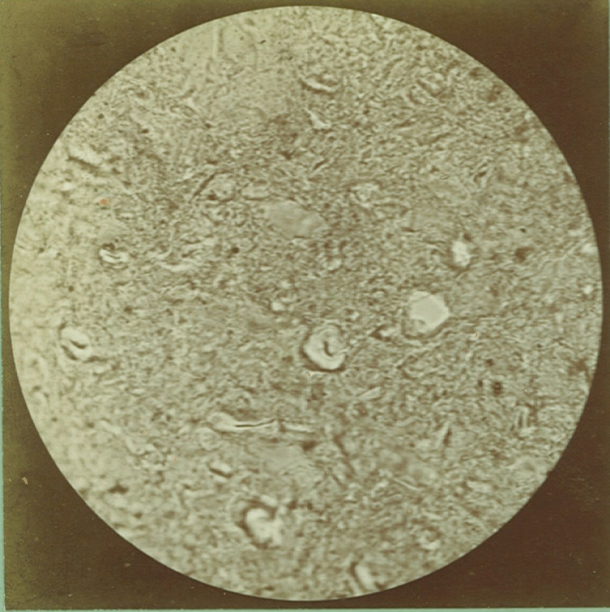


19a *CORDITE, without Vaseline.* (*Chilworth Co.*)  
*Transverse section.* × 250.



19b *CORDITE, without Vaseline.* (*Chilworth Co.*)  
*Longitudinal section.* × 250.

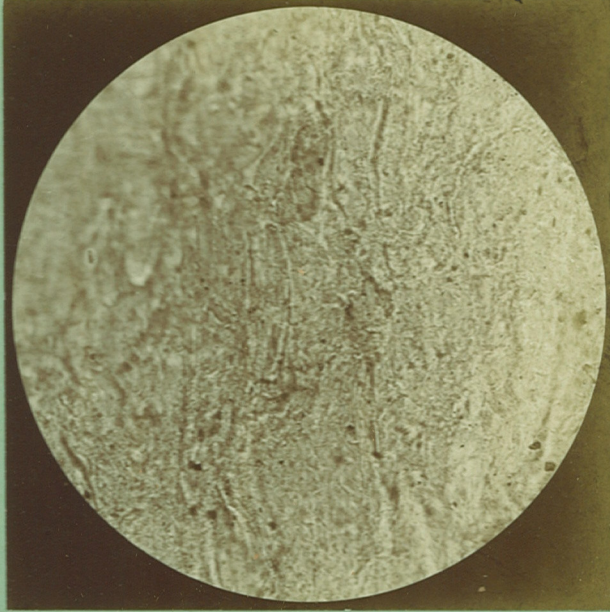
*CORDITE.*



17a *CORDITE. Size 30. (National Explosives Co.)*

*Transverse section.*

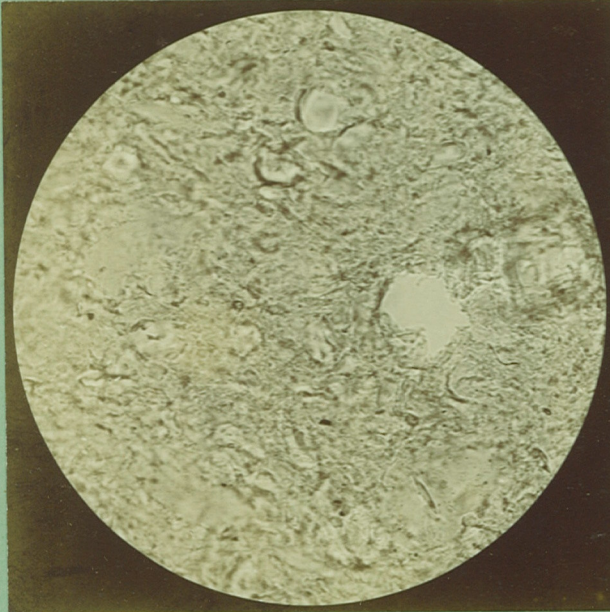
*× 250.*



17b *CORDITE. Size 30. (National Explosives Co.)*

*Longitudinal section.*

*× 250.*

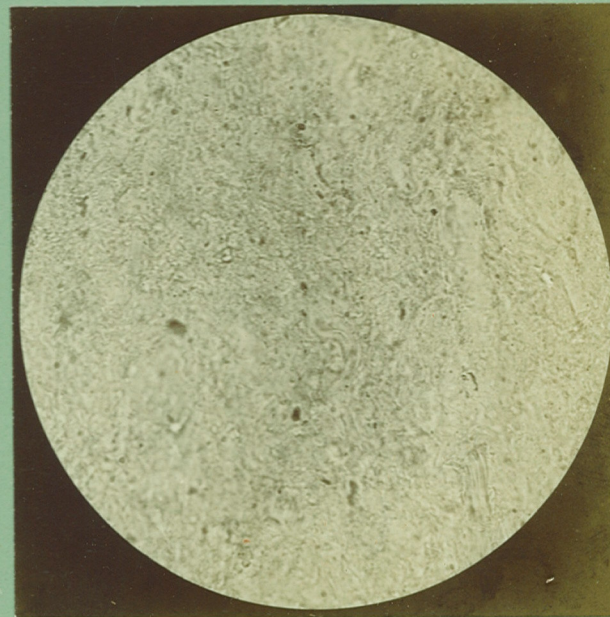


18a *CORDITE. Size 30. (National Explosives Co.)*

*Coated with Graphite.*

*Transverse section.*

*× 250.*



18b *CORDITE. Size 30. (National Explosives Co.)*

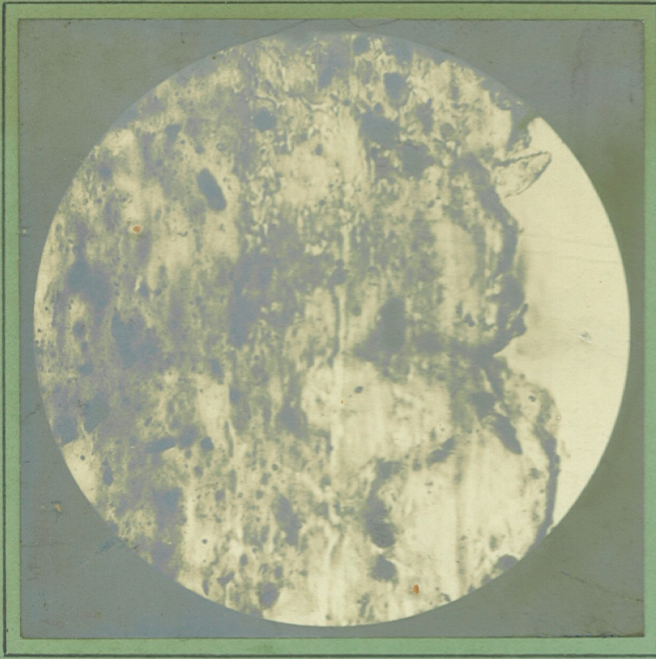
*Coated with Graphite.*

*Longitudinal section.*

*× 250.*



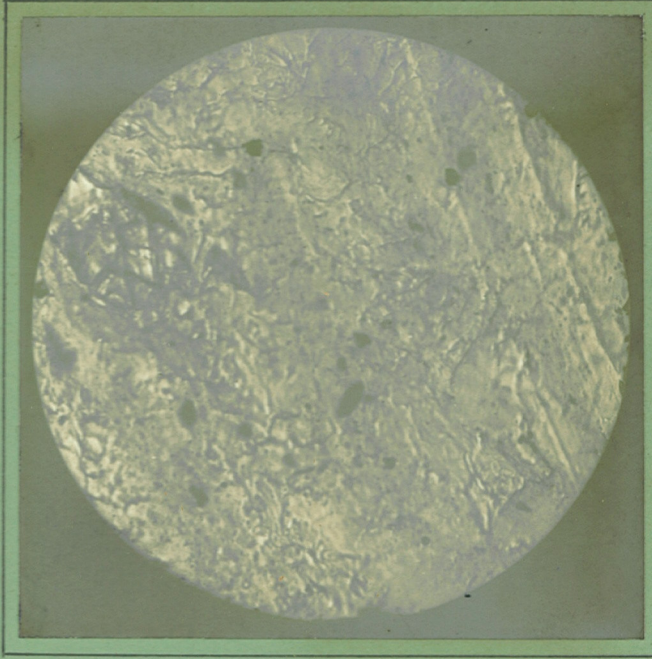
PYROCOLLODION.



30a "NORMAL" POWDER.

*Transverse section.*

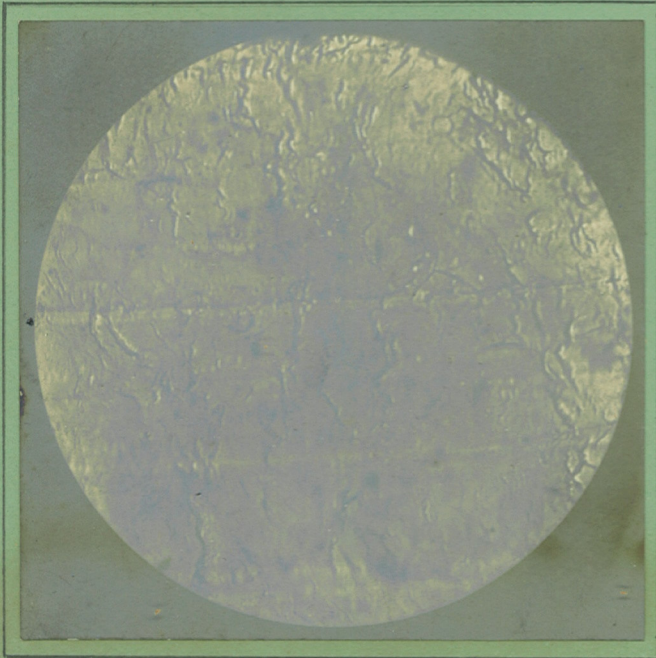
× 250.



30b "NORMAL" POWDER.

*Longitudinal section.*

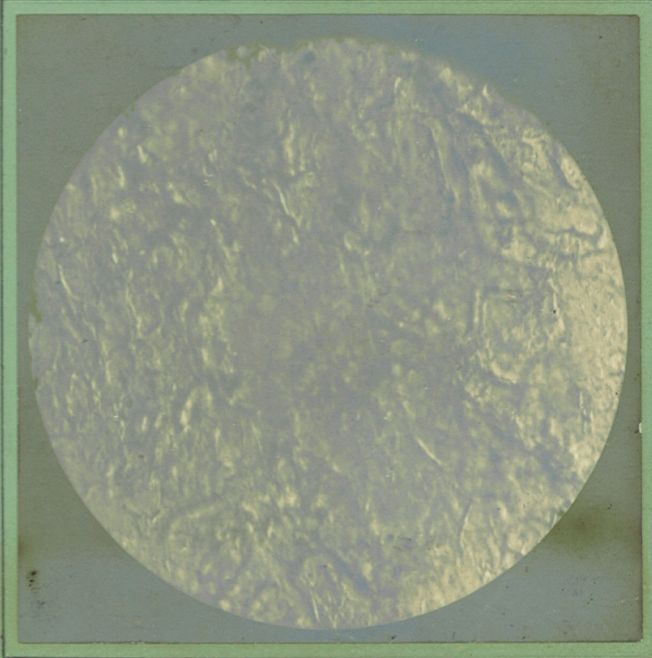
× 250.



31a PYROCOLLODION. (Waltham Abbey.)

*Transverse section.*

× 250.

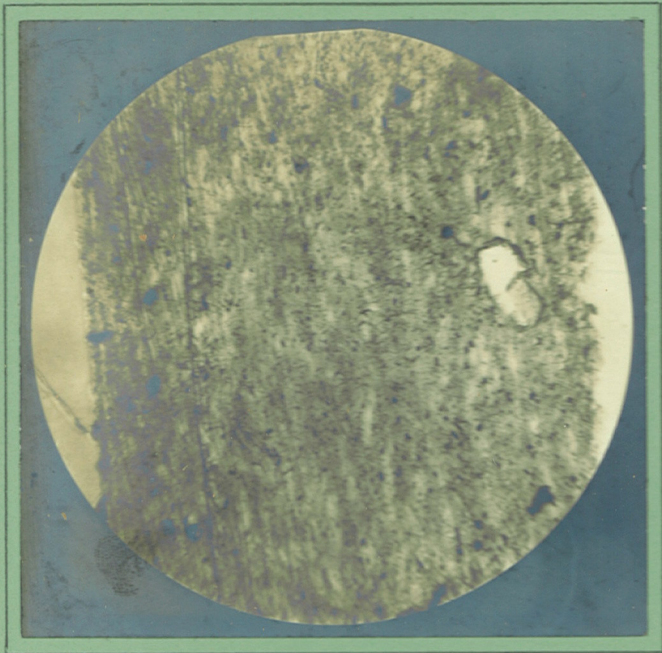


31b PYROCOLLODION. (Waltham Abbey.)

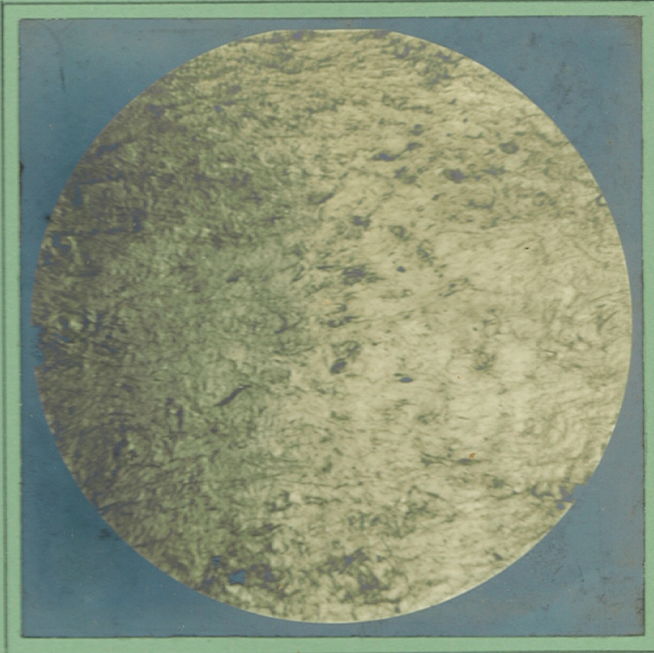
*Longitudinal section.*

× 250.

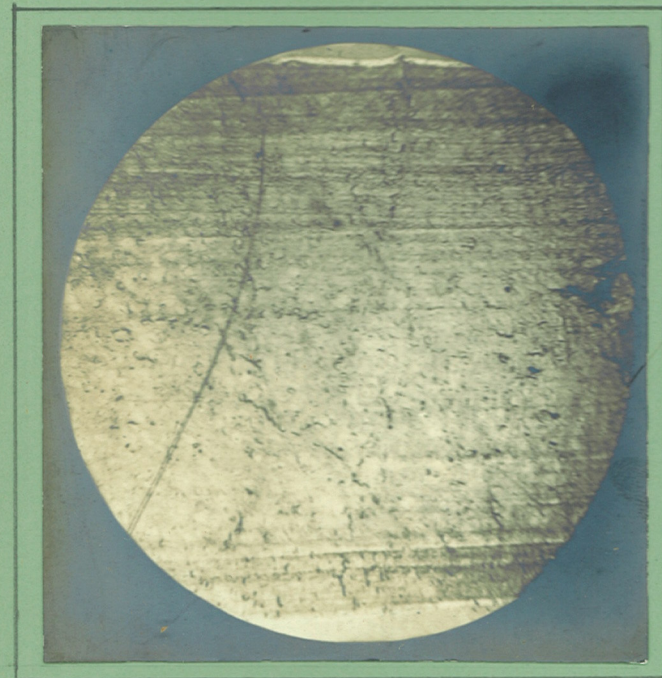
# PYROCOLLODION.



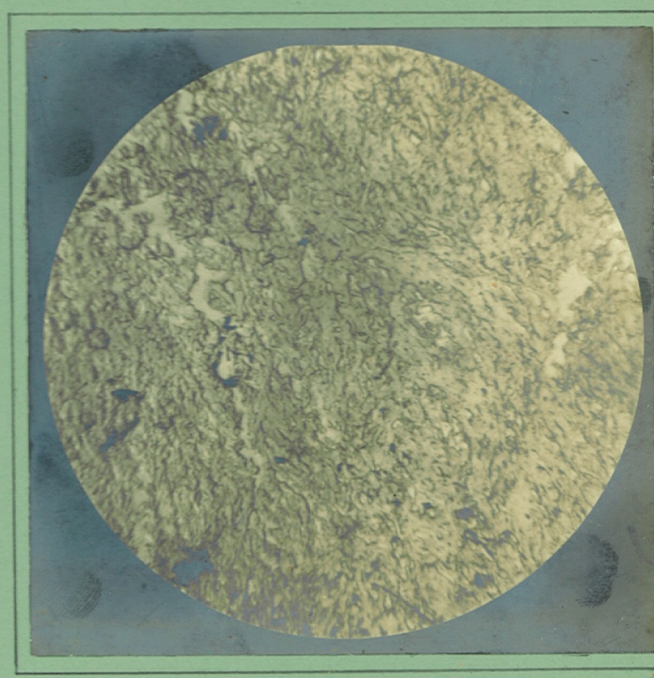
24b PYROCOLLODION TAPE.  
Gelatinized with Ether and Alcohol.  
(Mixed as for solubilities.)  
*Transverse section.* × 45



25b PYROCOLLODION. (American 6pr. Q.F. Gun.)  
Softened in Alcohol.  
*Longitudinal section.* × 45

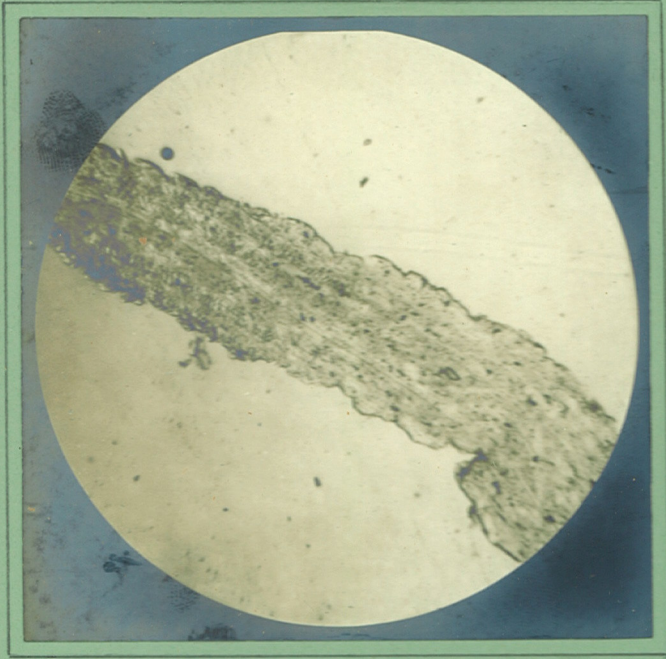


23a PYROCOLLODION. (Rottweil.)  
*Transverse section.* × 45



1b BALLISTITE. 8x8x2.  
*Longitudinal section.* × 45

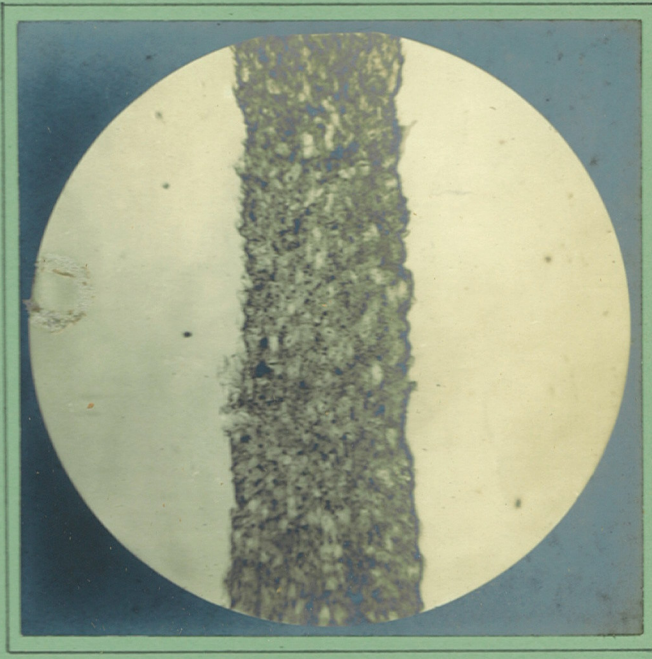
# PYROCOLLODION.



31b PYROCOLLODION. (Waltham Abbey.)

*Longitudinal section.*

× 45

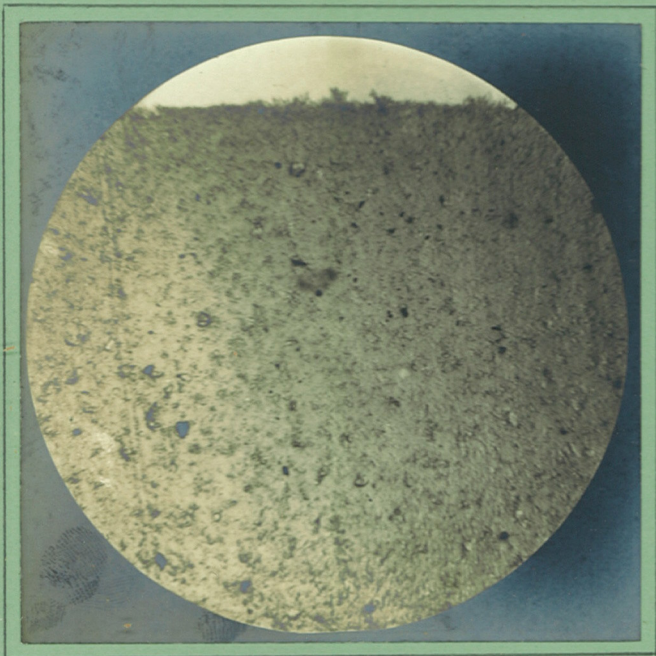


31a PYROCOLLODION. (Waltham Abbey.)

*Transverse section.*

× 45

# CORDITE.

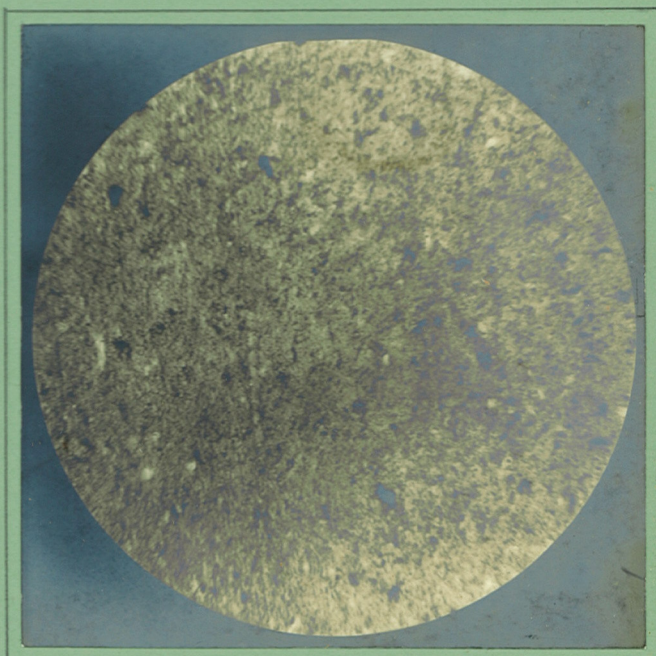


11a CORDITE. (Chilworth Powder Co.)

Made by wet process. June, 1900

*Transverse section.*

× 45



15a CORDITE, Standard, Special Size. June, 1897.

Kept at ordinary temperature till July, 1900.

*Transverse section.*

× 45

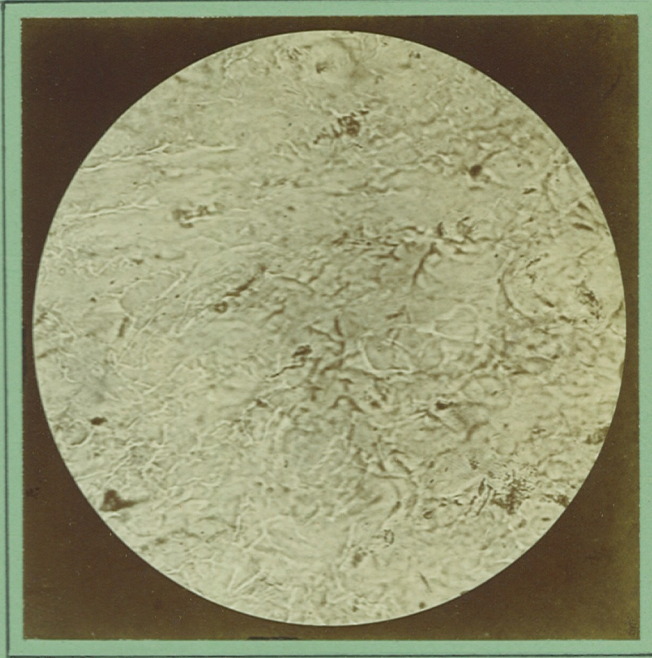
PYROCOLLODION.



13a PYROCOLLODION. (American, for 6pr. q.f. gun)

*Transverse section.*

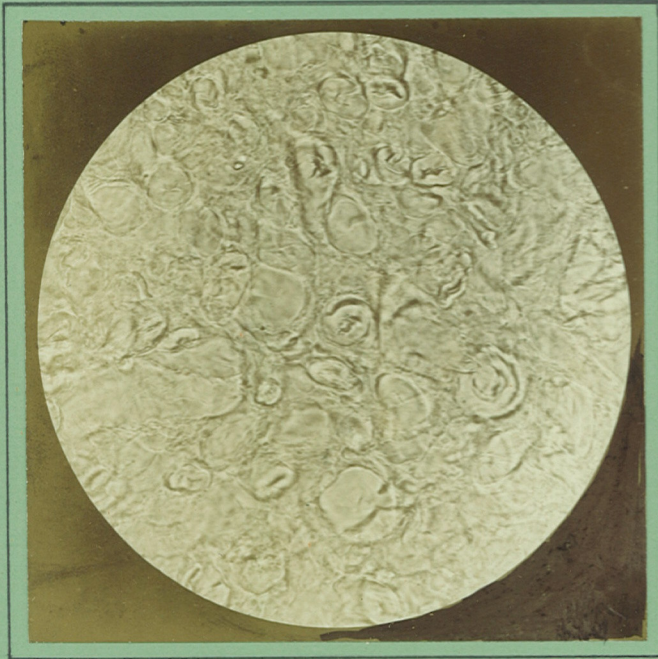
× 250.



13b PYROCOLLODION. (American, for 6pr. q.f. gun)

*Longitudinal section.*

× 250.

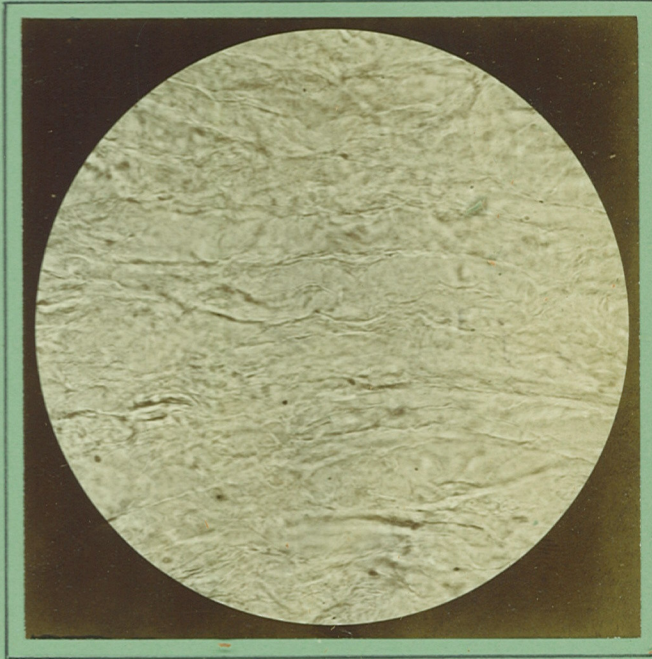


25a PYROCOLLODION. (American, for 6pr. q.f. gun)

Softened in alcohol.

*Transverse section.*

× 250.



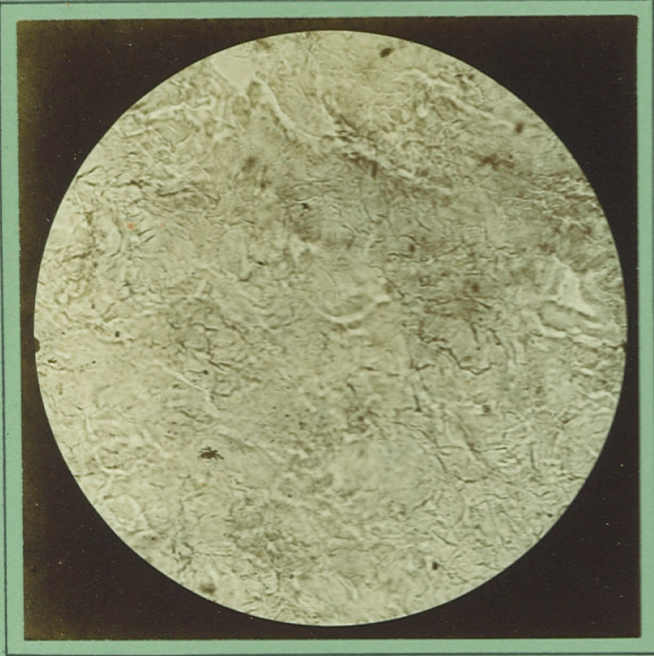
25b PYROCOLLODION. (American, for 6pr. q.f. gun)

Softened in alcohol.

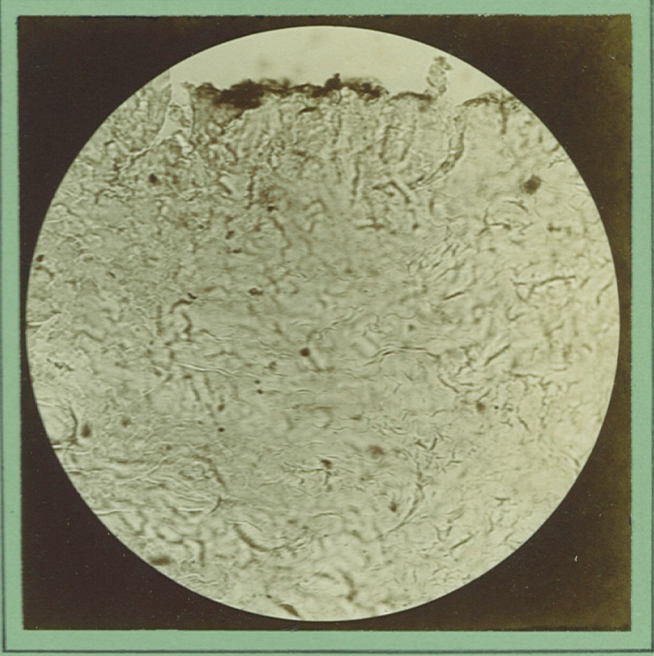
*Longitudinal section.*

× 250.

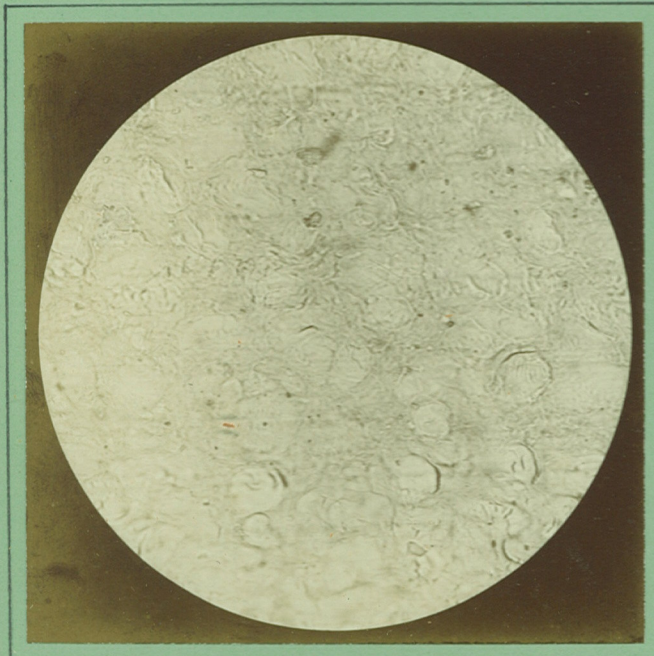
PYROCOLLODION.



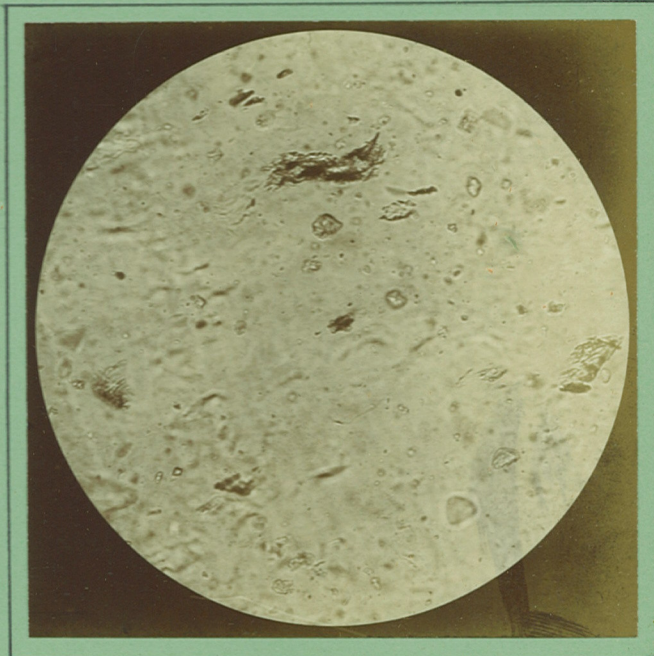
10a NEW SMOKELESS POWDER. (Curtis & Harvey.)  
June, 1899.  
*Transverse section.* × 250.



10b NEW SMOKELESS POWDER. (Curtis & Harvey.)  
June, 1899.  
*Longitudinal section.* × 250.

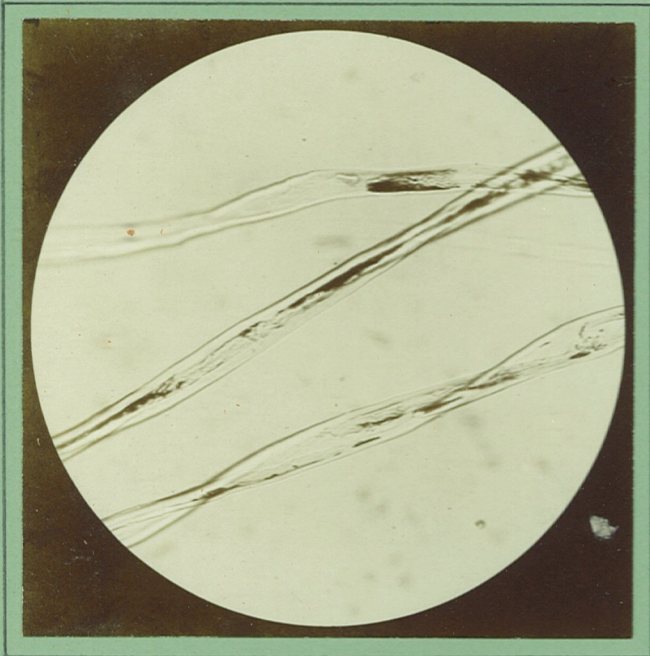


23a PYROCOLLODION. (Rothweil.)  
*Transverse section.* × 250.



23b PYROCOLLODION. (Rothweil.)  
*Longitudinal section.* × 250.

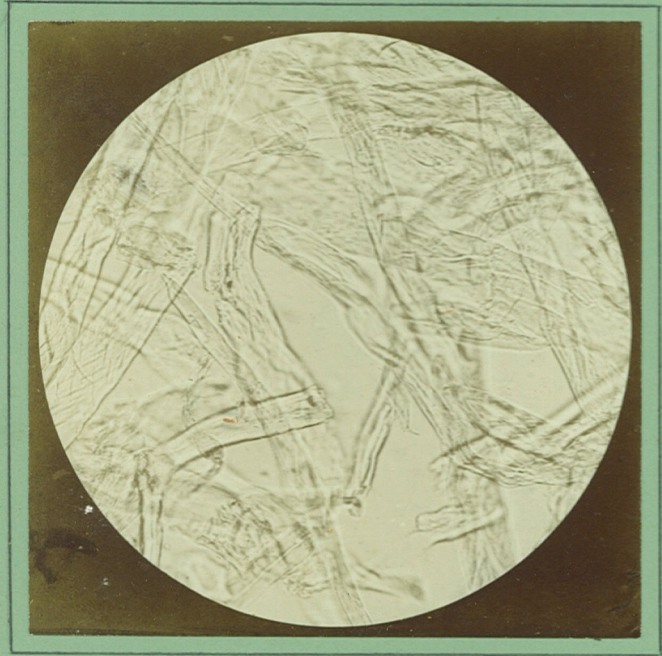
VARIOUS.



COTTON FIBRE. (Untreated.)  
x 250.

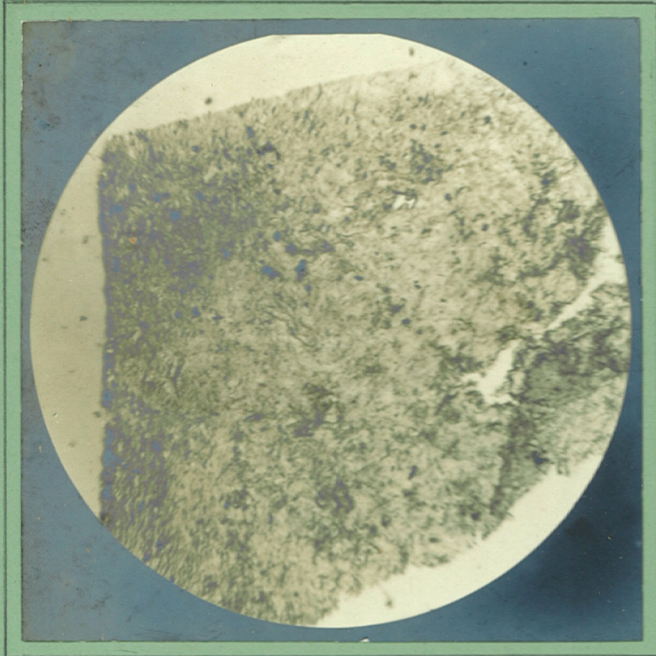


DINITROCELLULOSE.  
x 250.

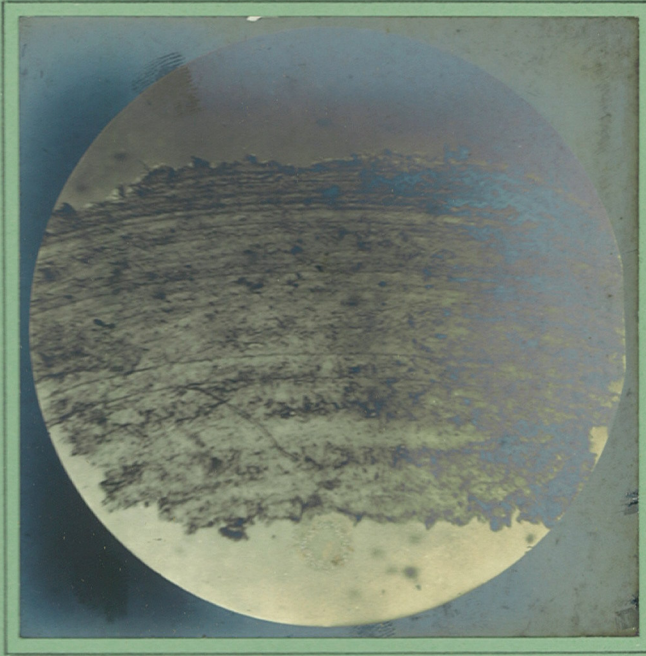


TRINITROCELLULOSE.  
x 250.

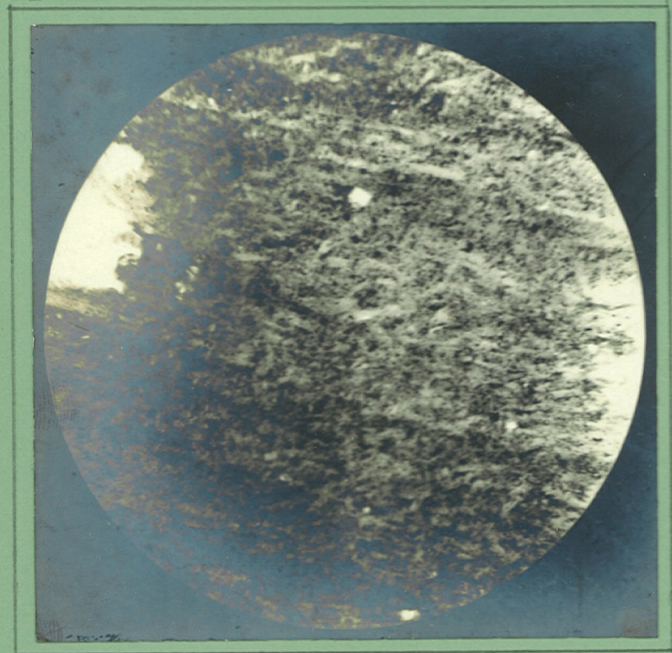
VARIOUS.



10a NEW SMOKELESS POWDER. (Curtis & Harvey.)  
June, 1899.  
Longitudinal section. x 45

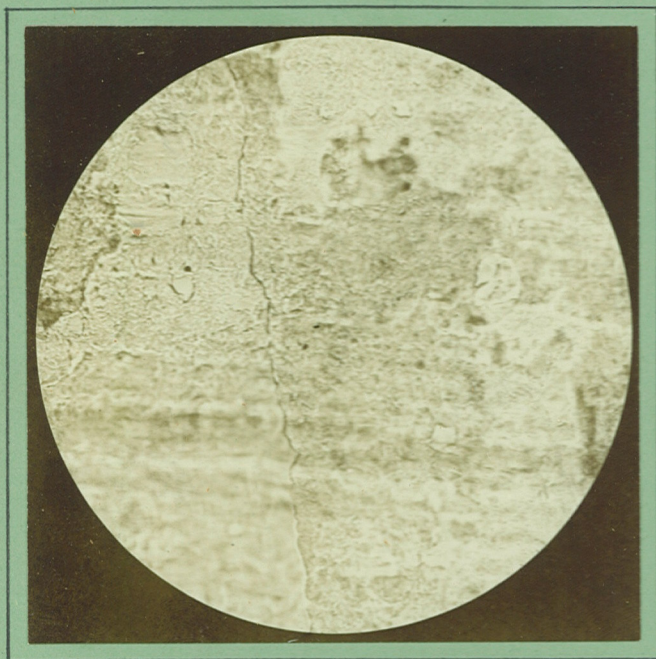


30b NORMAL POWDER.  
Longitudinal section. x 45



46 FRENCH POWDER. (Improved B.N.)  
Longitudinal section. x 45

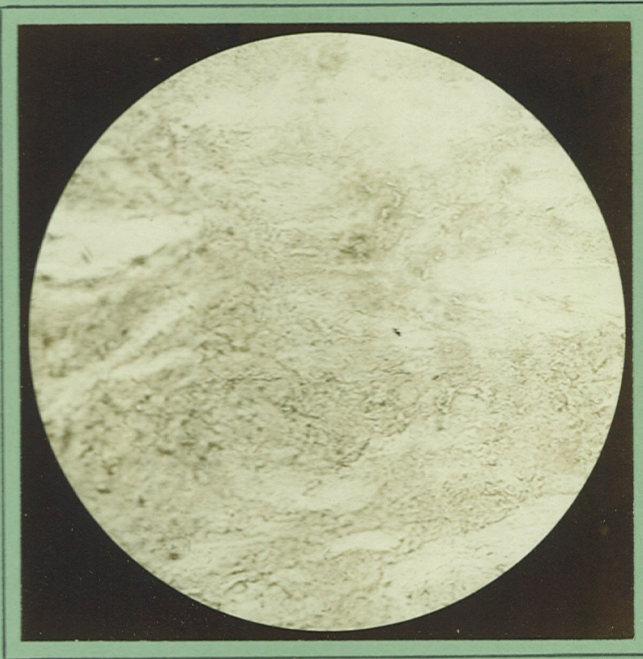
*BALLISTITE.*



30a *BALLISTITE. Norwegian, tubular.*

*Transverse section.*

× 250.



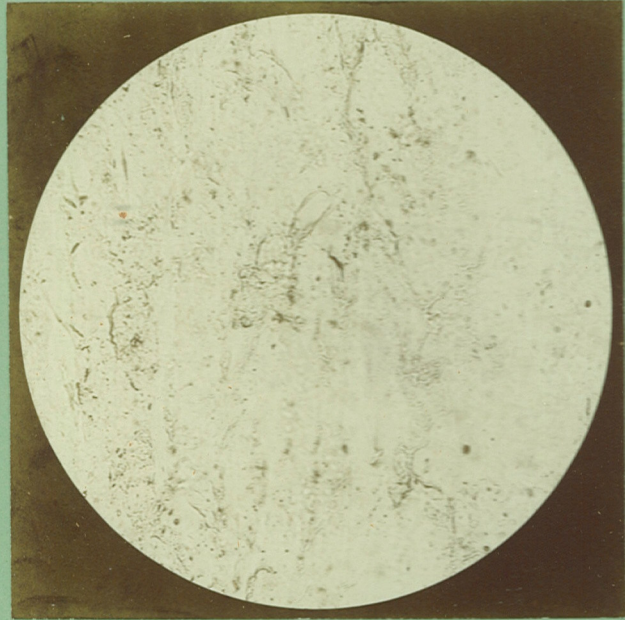
30b *BALLISTITE. Norwegian, tubular.*

*Longitudinal section.*

× 250.



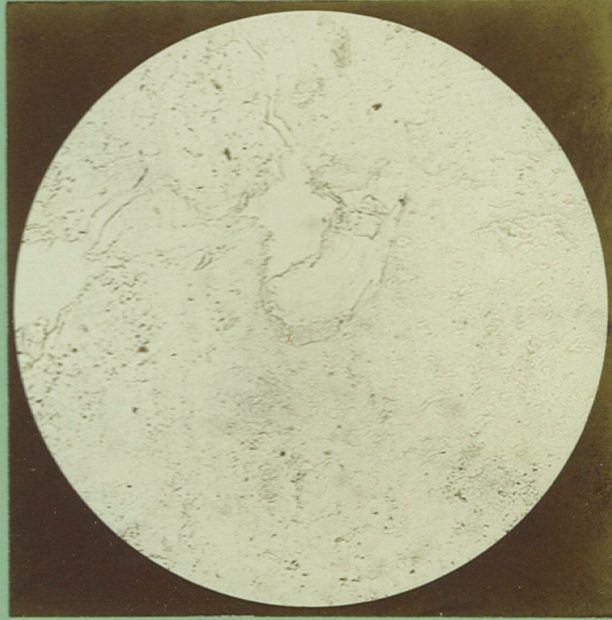
**BALLISTITE.**



1a BALLISTITE. 8 x 8 x 2 m.m.

*Transverse section.*

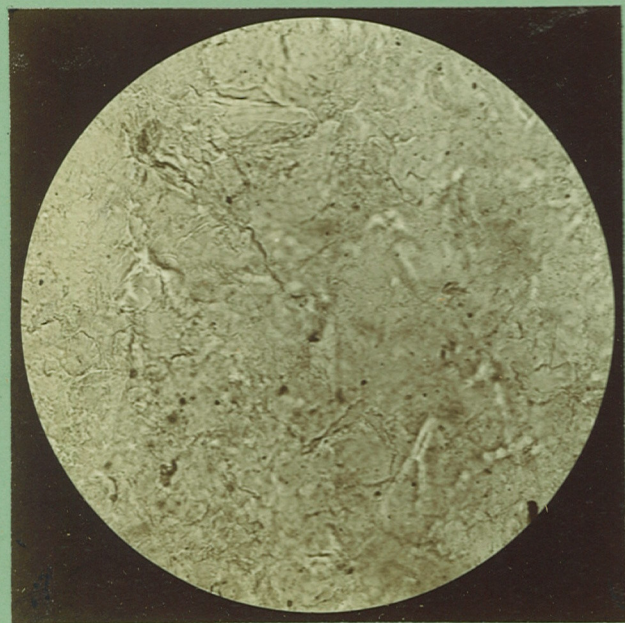
x 250.



1b BALLISTITE. 8 x 8 x 2 m.m.

*Longitudinal section.*

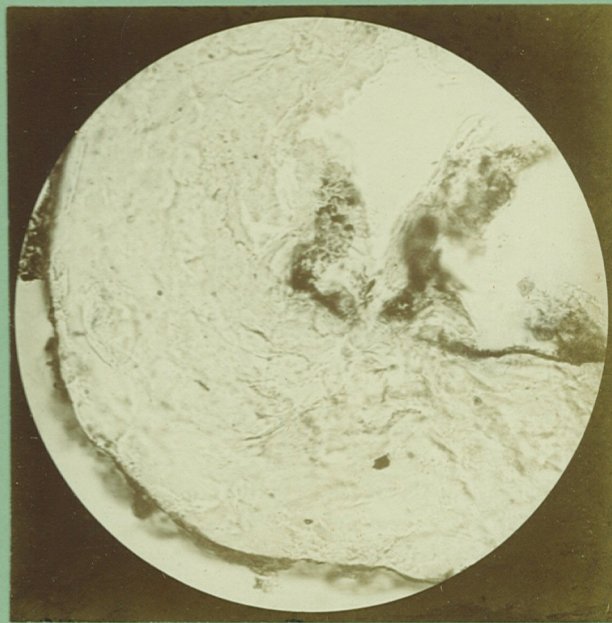
x 250.



7a BALLISTITE, Sporting.

*Transverse section.*

x 250.



7b BALLISTITE, Sporting.

*Longitudinal section.*

x 250.

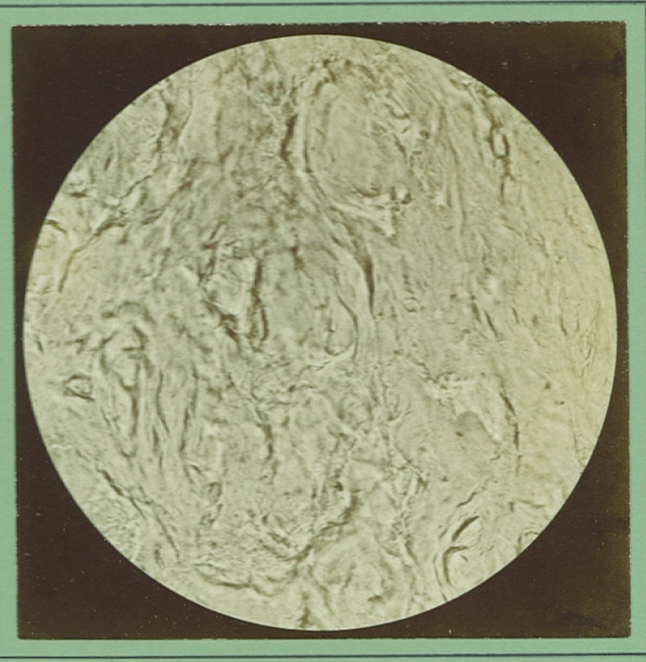
**BALLISTITE.**



3a BALLISTITE.  $2 \times 2 \times 0.5$  m.m.

*Transverse section.*

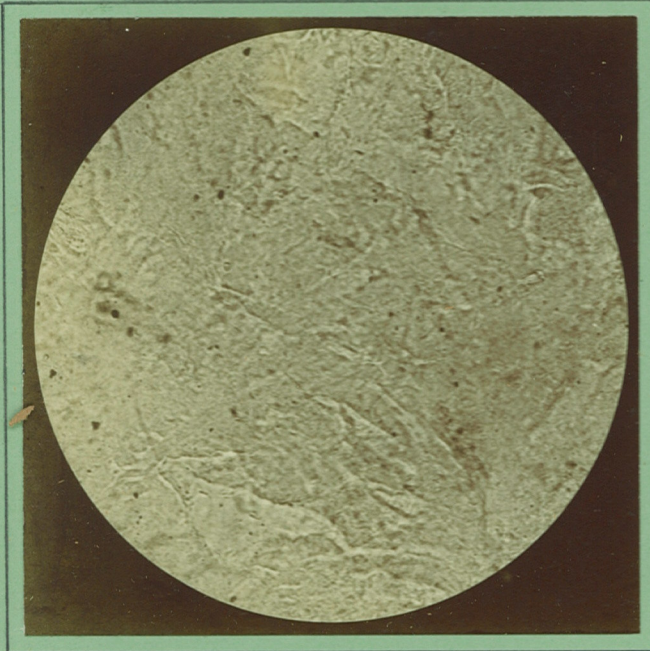
$\times 250.$



3b BALLISTITE.  $2 \times 2 \times 0.5$  m.m.

*Longitudinal section.*

$\times 250.$



2a BALLISTITE.  $6 \times 6 \times 1.5$  m.m.

*Transverse section.*

$\times 250.$



2b BALLISTITE.  $6 \times 6 \times 1.5$  m.m.

*Longitudinal section.*

$\times 250.$

