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RUBB

Collection of glass plate negatives illustrative of the history of rubber and rubber industries.

Compiled by Elizabeth Parisi

Series				
title and	Item	Date		Size
reference	number	range	Description	(cm)
Glass				
Negatives				
- Box N1		1000	N1 Rubber (polymers) under	0 0 1 0 0
to N36	RUBB/N1	c.1800	microscope.	8.2x10.8
Glass			N2 Advertisement, September	
Negatives			29 1832. Museums, Register,	
- Box N1		- 1000	Journal and Gazette. Drais	0 0 0 0
to N36 Glass	RUBB/N2	c.1800	improved velocipede (Fig.2)	8.2x8.2
			N3 HANCOCK'S Steam carriage,	
Negatives - Box N1			Steam Coach Company. Walter Hancok, ERA Greenwich,	
= BOX NI to N36	RUBB/N3	c.1800	London. Advertisement.	8.2x8.2
Glass	NUDD/NO	C.1000	London. Advertisement.	0.280.2
Negatives			N4 Rubber polymer spectrum	
- Box N1			(G B Y B R). Mid -shot	
to N36	RUBB/N4	c.1800	photograph.	8.2x10.8
Glass	RODD/ N4	0.1000		0.210.0
Negatives			N5 Rubber polymer spectrum	
- Box N1			(A B C). Mid -shot	
to N36	RUBB/N5	c.1800	photograph	8.2x10.8
Glass	10000, 110	0.1000		0.1110.0
Negatives				
- Box N1			N7Rubber polymer spectrum (B	
to N36	RUBB/N6	c.1800	G Y R). Mid -shot photograph	8.2x10.8
Glass				
Negatives			N18 Tree cutting, people	
- Box N1			gathering. Mid -shot	
to N36	RUBB/N7	c.1800	photograph	8.2x10.8
Glass			N8 Rubber machinery with	
Negatives			operator in rubber making	
- Box N1			process. Mid -shot	
to N36	RUBB/N8	c.1800	photograph (film neg.)	6.0x8.5
			N9 GILTEX Bathing shoes made	
Glass			from rubber latex, 4 shoe	
Negatives			boxes and 4 different shoe	
- Box N1			model. Advertisement (film	
to N36	RUBB/N9	c.1800	neg.)	6.0x9.1
Glass				
Negatives			N10 Shoes, 3 different	
- Box N1	/	1.0.0.0	models and sizes. Close up	
to N36	RUBB/N10	c.1800	photograph (film neg.)	6.1x8.9
Glass			N11 GILTEX Bathing shoes, 4	
Negatives			different models and sizes	
- Box N1		1.000	with shoes boxes. Mid -shot	
to N36	RUBB/N11	c.1800	photograph (film neg.)	6.1x9.2

Glass				
			N10 Thester (Mussum sector	
Negatives			N19 Theatre/Museum costume	
- Box N1		1000	display for children. Mid	0 0 1 0 0
to N36	RUBB/N19	c.1800	shot photograph	8.2x10.8
Glass				
Negatives			N20 BEARED BERTHA display	
- Box N1			poster with audience. Mid -	
to N36	RUBB/N20	c.1800	shot photograph	8.2x10.8
Glass				
Negatives			N21 SINCLAIR EXHIBIT with	
- Box N1			people gathering. Mid -shot	
to N36	RUBB/N21	c.1800	photograph	8.2x10.8
Glass			N22 SINCLAIR EXHIBIT	
Negatives			entrance with giant	
- Box N1			dinosaur. Mid -shot	
to N36	RUBB/N22	c.1800		8.2x10.8
	RUDD/NZZ	C.1000	photograph	0.2X10.0
Glass				
Negatives			N23 Dinosaur and palm trees,	
- Box N1			Sinclair Exhibit. Mid -shot	
to N36	RUBB/N23	c.1800	photograph	8.2x10.8
Glass				
Negatives			N24 REX Display, Sinclair	
- Box N1			Exhibit. Mid -shot	
to N36	RUBB/N24	c.1800	photograph	8.2x10.8
Glass				
Negatives			N25 Palms trees and people	
- Box N1			around, Sinclair Exhibit.	
to N36	RUBB/N25	c.1800	Close up photograph	8.2x10.8
Glass	Itobb/ Itzo	0.1000		0.2110.0
Negatives			N26 Rusell Effect in smoked	
- Box N1			sheet, raw rubber (under	
		~ 1000		0 010 0
to N36	RUBB/N26	c.1800	microscope).	8.2x10.8
Glass				
Negatives			N27 Sir Clements R. Markham	
- Box N1			portrait. Mid -shot	
to N36	RUBB/N27	c.1800	photograph	8.2x8.2
			N28 Sample of rubber from	
			the covers of two vats used	
Glass			for storing ethyl alcohol	
Negatives			decanted with acetate acid	
- Box N1			in use for 7 years. Close up	
to N36	RUBB/N28	c.1800	photograph	8.2x10.8
			N29 Photomicrograph at 100x	
			of solid alpha brass. This	
Glass			structure adheres best to	
Negatives			rubber, the black inclusions	
- Box N1				
		~ 1000	are lead and one is marked	0 210 0
to N36	RUBB/N29	c.1800	A. (fig.1)	8.2x10.8

			N30 This is a	
			photomicrograph at 100x of	
			solid brass containing both	
			alpha and beta crystals.	
Glass			This structure gives poor	
Negatives			adhesion to rubber. (The	
- Box N1			elongated crystals are beta	
to N36	RUBB/N30	c.1800		8.2x10.8
0 1130	RODD/NS0	C.1000	brass). (fig.2) N31 Fig.3 is a	0.2810.0
			5	
			photomicrograph at 100x of a	
			cross section of plated	
Glass			brass with rubber adhering.	
Negatives			The black is rubber, the	
- Box N1			light is steel. (The brass	
to N36	RUBB/N31	c.1800	marked C is not resolved).	8.2x10.8
			N32 Fig.4 is a	
			photomicrograph at 100x	
			showing brass plated for two	
			hours. The upper surface is	
Glass			nickel plate. The lower is	
Negatives			steel. (Observe that the	
- Box N1				
		1000	brass plate is much thinner	0 0 1 0 0
to N36	RUBB/N32	c.1800	in the recesses).	8.2x10.8
Glass				
Negatives			N33 Industrial plant,	
- Box N1			machinery. Mid -shot	
to N36	RUBB/N33	c.1800	photograph	8.2x12
Glass				
Negatives			N34 Industrial plant,	
- Box N1			machines on floor with	
to N36	RUBB/N34	c.1800	pipes. Mid shot photograph	8.2x12
			N35 Table: production of	
			crude rubber in 1940 in tons	
Glass			(Malaya, Ceylon,	
Negatives			Netherlands, Indo-China,	
- Box N1			Borneo and rest of the world	
to N36	RUBB/N35	c.1930		0 2 1 0 0
	CCN/DD/N22	C.1930	figures).	8.2x10.8
Glass				
Negatives			N36 Map: plantation rubber	
- Box N1			production countries. Mid -	
to N36	RUBB/N36	c.1800	shot photograph	8.2x10.8
Glass				
Negatives			2 Market Place, Marlborough,	
- Box 2			about 1800. Mid -shot	
to 210	RUBB/2	c.1800	photograph	8.2x8.2
Glass			3 St Peter's Church,	
Negatives			Marlborough (exterior),	
- Box 2			about 1800. Mid -shot	
to 210	RUBB/3	c.1800	photograph	8.2x8.2
~~ ~ ~ ~ ~		0.1000	F	J. 110.2

~ 1		1		
Glass			4 St Peter's Church,	
Negatives			Marlborough (interior),	
- Box 2			about 1800. Mid -shot	
to 210	RUBB/4	c.1800	photograph	8.2x8.2
Glass			5 Old Grammar School,	
Negatives			Marlborough, Wiltshire.	
- Box 2			About 1800. Mid -shot	
to 210	RUBB/5	c.1800	photograph	8.2x8.2
Glass				
Negatives			6 (2 negatives) Marriage	
- Box 2			Register: James Hancock and	
to 210	RUBB/6	c.1800	Betty Coleman, 1778.	8.2x8.2
Glass			-	
Negatives			8 (2 negatives) Baptism	
- Box 2			Register of Thomas Hancock.	
to 210	RUBB/8	c.1800	6th June 1786.	8.2x8.2
Glass			9 Portrait Betty Hancock.	
Negatives			From painting by Charles	
- Box 2			Hancock. Mid -shot	
to 210	RUBB/9	c.1800	photograph	8.2x8.2
20 210	I(ODD/)	0.1000	10 Proclamation in	0.240.2
			Marlborough paper November	
Glass			3, 1772. Notice concerning	
			-	
Negatives			persons disturbing a	
- Box 2		- 1000	congregation of dissenters	0 0 0 0
to 210	RUBB/10	c.1800	in Marlborough.	8.2x8.2
Glass			11 Authority for	
Negatives			establishment of Dissenting	
- Box 2	1		Chapel by Thomas Hancock,	
to 210	RUBB/11	c.1800	1774. Signed by J.M.Ewen.	8.2x8.2
			12 Borough and Inn of	
Glass			Marlborough. Authority for	
Negatives			establishment of Dissenting	
- Box 2			Chapel by Thomas Hancock,	
to 210	RUBB/12	c.1800	1774 signed by Charles Bill.	8.2x8.2
Glass				
Negatives			13 Bond for £20 entered into	
- Box 2			by Thomas Hancock's	
to 210	RUBB/13	c.1800	assailants in 1775.	8.2x8.2
Glass				
Negatives			14 (film negative) Inlaid	
- Box 2			mahogany tray made by James	
to 210	RUBB/14	c.1800	Hancock. Close up photograph	8.2x8.2
			15 Pilentum or Lady's	
			accelerator made by Hancock	
			& Co., 1819. This vehicle is	
Glass			peculiarly adapted for the	
Negatives			use of Ladies. It is	
- Box 2			impelled by the slightest	
to 210	RUBB/15	c.1800	touch of either the hands or	8.2x8.2
LU ZIU	TODD/TO	C.1000	Couch of erther the hands of	0.280.2

			feet.	
Glass			16 Portrait Joseph	
Negatives			Priestley. Portrait in the	
- Box 2			National Portrait Gallery.	
to 210	RUBB/16	c.1800	Mid -shot photograph	8.2x8.2
Glass				
Negatives				
- Box 2			20 Map of Clerkenwell in	
to 210	RUBB/20	c.1800	1799. Mid -shot photograph	8.2x8.2
Glass				
Negatives			21 Portrait Charles	
- Box 2			Macintosh F.R.S., sitting by	
to 210	RUBB/21	c.1800	table. Mid -shot photograph	8.2x8.2
Glass				
Negatives			22 Portrait Charles	
- Box 2			Macintosh F.R.S. Close up	
to 210	RUBB/22	c.1800	photograph	8.2x10.8
Glass			23 Title page of "Memoir of	
Negatives			Charles Macintosh", 1847.	
- Box 2			Biographical memoir,	
to 210	RUBB/23	c.1800	Glasgow.	8.2x8.2
Glass				
Negatives			24 Letter from R.W.Barton an	
- Box 2			original partner in	
to 210	RUBB/24	c.1800	Chas.Macintosh & Co.	8.2x8.2
Glass				
Negatives			29 Letter from M.Faraday,	
- Box 2			F.R.S.; to Thomas Hancock	
to 210	RUBB/29	c.1800	(January, 1857).	8.2x8.2
			30 Front page of John Bull	
			Vol XII No.616, Sunday	
			September 30, 1832. An	
			announcement appears to the	
			effect that John Hancock the	
			original manufacturer of	
Glass			domestic and medical goods	
Negatives			of caotchoucm has opened a	
- Box 2			warehouse at 11 Agar St,	
to 210	RUBB/30	c.1800	Strand.	8.2x8.2
Glass				
Negatives			32 Letter in French from	
- Box 2			Charles Guibal to Thomas	
to 210	RUBB/32	c.1800	Hancock. Paris, 1857.	8.2x8.2
			33 In French: Rattier & Cie	
Glass			aux Terrace (Emploi du	
Negatives			caoutchouc de la guta	
- Box 2			percha). Letter to Thomas	
to 210	RUBB/33	c.1800	Hancock. La France, 1852	8.2x8.2

[]				
Glass				
Negatives				
- Box 2			34 Letter from E. Woodcock	
to 210	RUBB/34	c.1800	to Thomas Hancock, 1857.	8.2x8.2
			35 Advertisement.	
			Chas.Macintosh & Co.	
			Patentees of Indian	
			rubber.Depot at 50 Charing	
			Cross (also at 46	
			Cheapside). About 1840. The	
			company is described as	
Glass				
			manufacturing waterproof	
Negatives			clothes of double texture,	
- Box 2			air cushions, pillows and at	
to 210	RUBB/35	c.1800	the Manufactory, Manchester.	8.2x8.2
Glass				
Negatives			37 (two negatives) Fire	
- Box 2			Insurance Policy in	
to 210	RUBB/37	c.1800	Hancock's works. 1834.	8.2x8.2
			38 The first Steam Engine	
			used in rubber manufacture.	
			A grasshopper engine built	
			at Easton & Amos. Erected in	
<u></u>			the Hancock's works, 1834,	
Glass			at 266 Goswell Road, London,	
Negatives			EC1. Dismantled in 1922	
- Box 2			after running over 80 years.	
to 210	RUBB/38	c.1800	Mid -shot photograph	8.2x8.2
Glass			39 (two negatives)	
Negatives			Documents. Hancock's	
- Box 2			valuation of premises and	
to 210	RUBB/39	c.1800	plant at Goswell Road. 1836.	8.2x8.2
			40 Trade Mark of Chas.	
Glass			Macintosh & Co. India Rubber	
Negatives			Manufacturers established	
- Box 2			1824 (Hand-Cock). Mid -shot	
to 210	RUBB/40	c.1800	photograph	8.2x8.2
		C.1000		0.240.2
Glass			41 Portrait Walter Hancock,	
Negatives			after painting by Charles	
- Box 2	,	1000	Hancock. Mid -shot	
to 210	RUBB/41	c.1800	photograph	8.2x8.2
			42 Title page of Walter	
			Hancock's "Narrative of	
			twelve years of experiments	
			(1824-1836) demonstrative of	
			the practicability of steam	
Glass			carriages in common roads".	
Negatives			1838. Engravings and	
- Box 2			Descriptions, London.	
to 210	RUBB/42	c.1800	Published by John Weale.	8.2x8.2
CO 2IV		C.1000	I TANTIDICA NY UUIII WEATE.	0.240.2

Class			12 Dista 2 Eta 7 Maltan	
Glass			43 Plate 3 Fig. 7 Walter	
Negatives			Hancock's first experimental	
- Box 2	(steam carriage. Mid -shot	
to 210	RUBB/43	c.1800	photograph	8.2x8.2
Glass			44 Plate 4 Fig. 8. Walter	
Negatives			Hancock's "Infant" steam	
- Box 2			carriage. Stratford-London.	
to 210	RUBB/44	c.1800	Mid -shot photograph	8.2x8.2
			45 Fig. 9 Walter Hancock's	
Glass			"Infant" steam carriage	
Negatives			remodelled. Paddington-	
- Box 2			Regents Park-City. Mid -shot	
to 210	RUBB/45	c.1800	photograph	8.2x8.2
			46 Fig. 9 Walter Hancock's	
Glass			"Infant" steam carriage	
Negatives			remodelled showing	
- Box 2			mechanical details. Mid -	
to 210	RUBB/46	c.1800	shot photograph	8.2x8.2
Glass	1022/10	2.1000	48 Fig.11 Walter Hancock's	
Negatives			"Entreprise" steam carriage.	
- Box 2			Paddington-City. Mid -shot	
to 210	RUBB/48	c.1800		8.2x8.2
	RUDD/40	C.1000	photograph	0.280.2
Glass			49 Fig.12 Walter Hancock's	
Negatives			"Autopsy" steam carriage.	
- Box 2		1000	Stratford-City. Mid -shot	
to 210	RUBB/49	c.1800	photograph	8.2x8.2
Glass				
Negatives			50 Fig.13 Walter Hancock's	
- Box 2			steam drag. Mid -shot	
to 210	RUBB/50	c.1800	photograph	8.2x8.2
Glass			51 Fig. 10 Walter Hancock's	
Negatives			"Era" or "Erin" steam coach	
- Box 2			carriage. Mid -shot	
to 210	RUBB/51	c.1800	photograph	8.2x8.2
Glass				
Negatives			52 "The Marlborough" steam	
- Box 2			carriage, by Walter Hancock.	
to 210	RUBB/52	c.1800	Mid -shot photograph	8.2x8.2
Glass			54 The oldest and early	
Negatives			spreading machine.	
- Box 2			(C.B.Heinke & Co.). 1852.	
to 210	RUBB/54	c.1800	Advertisement.	8.2x8.2
Glass	, 0 1	3.2000		
Negatives			56 (2 negatives) Portrait	
- Box 2			Nathaniel Hayward. Mid -shot	
- BOX 2 to 210	RUBB/56	c.1800	_	8.2x8.2
	LODD/30	C.1000	photograph	0.280.2
Glass				
Negatives			57 Letter from Thomas	
- Box 2		1	Hancock to Nathaniel	
to 210	RUBB/57	c.1800	Hayward, 1857.	8.2x8.2

Glass				
Negatives			58 Portrait of Stephen	
- Box 2			Moulton. Mid -shot	
to 210	RUBB/58	c.1800	photograph	8.2x8.2
Glass	Itobb/ 00	0.1000	59 Portrait of William	0.210.2
Negatives			Brockendon (head only),	
- Box 2			Member of the Academy. Mid -	
to 210	RUBB/59	c.1800	shot photograph	8.7x13.9
Glass		C.1000	60 Portrait of William	0.7813.5
Negatives			Brockendon, full length,	
- Box 2			holding manuscript. Mid -	
to 210	RUBB/60	c.1800	shot photograph	8.7x13.9
Glass	RUBB/00	C.1000		0./X13.9
Negatives				
- Box 2		1000	64 Portrait of Thomas Graham	0 0 0 0
to 210	RUBB/64	c.1800	F.R.S. Mid -shot photograph	8.2x8.2
Glass				
Negatives				
- Box 2	(65 Letter from Thomas Graham	
to 210	RUBB/65	c.1800	F.R.S. to Thomas Hancock.	8.2x8.2
Glass				
Negatives				
- Box 2			66 Portrait of Arthur Aikin.	
to 210	RUBB/66	c.1800	Mid -shot photograph	8.2x8.2
Glass				
Negatives			67 Letter from Arthur Aikin	
- Box 2			to Thomas Hancock. 22 July	
to 210	RUBB/67	c.1800	1852.	8.2x8.2
			68 Partnership agreement,	
Glass			Chas. Macintosh & Co. 1st	
Negatives			November 1845.Signed in	
- Box 2			presence of William	
to 210	RUBB/68	c.1800	Brockendon.	8.2x8.2
Glass			70 Portrait of Walter	
Negatives			Hancock, Jr. 1903 by Maull &	
- Box 2			Fox of 187A Picadilly,	
to 210	RUBB/70	c.1800	London. Mid -shot photograph	8.2x8.2
Glass				
Negatives			71 Rubber medallion portrait	
- Box 2			of Thomas Hancok. Mid -shot	
to 210	RUBB/71	c.1800	photograph	8.2x8.2
			72 Early moulding &	
Glass			vulcanizing, by Thomas	
Negatives			Hancock. Pastoral scene	
- Box 2			moulded in rubber about	
to 210	RUBB/72	c.1800	1852.	8.2x8.2
Glass				
Negatives				
- Box 2			74 Letter from Alexander	
to 210	RUBB/74	c.1800	Parkes to Thomas Hancock.	8.2x8.2
	<u> </u>	l .	1	

Glass				
Negatives			75 Portrait of	
- Box 2			W.A.Buckingham. Mid -shot	
to 210	RUBB/75	c.1800	photograph	8.2x8.2
Glass	1022, 10	0.1000	76 Letter from	0.2110.2
Negatives			W.A.Buckingham to Thomas	
- Box 2			Hancock in Stoke Newington,	
to 210	RUBB/76	c.1800	1857.	8.2x8.2
Glass	RODD//O	C.1000	1007.	0.240.2
Negatives			77 Notice of formation of	
- Box 2			Goodyear Shoe Association.	
to 210	RUBB/77	c.1800	Circular of 1858.	8.2x8.2
Glass	RUDD///	C.1000	cilcular of 1050.	0.280.2
			70 Dout woit of James James	
Negatives			79 Portrait of James Lyne	
- Box 2		1000	Hancock. Mid -shot	0 0 0 0
to 210	RUBB/79	c.1800	photograph	8.2x8.2
Glass				
Negatives				
- Box 2		1.0.0.0	93 Letter from Henry	
to 210	RUBB/93	c.1800	Karslake to Thomas Hancock.	8.2x8.2
Glass				
Negatives			95 (2 negatives) Portrait of	
- Box 2			Sir W.J.Hooker F.R.S. Mid -	
to 210	RUBB/95	c.1800	shot photograph	8.2x8.2
Glass				
Negatives			96 Letter from Sir W.J.	
- Box 2			Hooker F.R.S. to Thomas	
to 210	RUBB/96	c.1800	Hancock, February 1857.	8.2x8.2
Glass			97 (2 negatives) Portrait of	
Negatives			Sir Joseph D.Hooker, 1855	
- Box 2			from a drawing by Richmond.	
to 210	RUBB/97	c.1800	Mid -shot photograph	8.2x8.2
			98 Title page of Thomas	
			Hancock's "Personal	
			Narrative" of the origins	
			and progress of the	
			cautchouc or India-rubber	
			manufacture in England. With	
Glass			engravings to which is added	
Negatives			some account of the plants	
- Box 2			from which caoutchouc is	
to 210	RUBB/98	c.1800	obtained. (1857)	8.2x8.2
			99 Iluminated address from	
Glass			employees of Chas.Macintosh	
Negatives			& Co., 1858 to The Hancock	
- Box 2			Esq. Signed: Cambridge	
to 210	RUBB/99	c.1800	Street India Rubber Works.	8.2x8.2
Glass			100 Thomas Hancock's	
Negatives			acknowledgment of employees'	
- Box 2	RUBB/100	c.1800	address (1858). (copy of the	8.2x8.2
				· ·••

		1		
to 210			letter to W. Woodcock).	
			101 Deterts token out he	
			101 Patents taken out by	
			members of the Hancock	
			Family: James, Thomas, John,	
Glass			William, Walter and Charles	
Negatives			Hancock. Patents	
- Box 2			specification numbers and	
to 210	RUBB/101	c.1800	dates are listed.	8.2x8.2
			104 Portrait of Thomas	
Glass			Hancock. (This portait is of	
Negatives			a later date than the one in	
- Box 2			RUBB/1). Mid -shot	
to 210	RUBB/104	c.1800	photograph	8.2x8.2
Glass			105 Residence of John	
Negatives			Hancock."Varfell", Ludgvan,	
- Box 2			Cornwall. Mid -shot	
to 210	RUBB/105	c.1800	photograph	8.2x8.2
Glass			106 Portrait of H.H. Birley,	
Negatives			original partner in Chas.	
- Box 2			Macintosh & Co. Mid -shot	
to 210	RUBB/106	c.1800	photograph	8.2x10.8
Glass	,		107 Trade Mark of Chas.	
Negatives			Macintosh & Co., Ltd. India	
- Box 2			Rubber Manufacturer.	
to 210	RUBB/107	c.1800	Established 1824.	8.2x8.2
Glass	,,			
Negatives			108 (4 negatives) Fig.11	
- Box 2			Goldsworthy Guerney's steam	
to 210	RUBB/108	c.1800	Coach. 1826-1828	8.2x8.2
	1000,100	C.1000	109 (2 negatives) Fig. 9 and	0.240.2
Glass				
			10 Wheel and driver. Wheel used in Walter Hancock's	
Negatives - Box 2			steam coaches. The essential	
- Box 2 to 210	חסווס / 1 ^ 0	a 1000		0 2 0 2
	RUBB/109	c.1800	features are metallic naves.	8.2x8.2
Glass				
Negatives				
- Box 2		1000	110 Letter from J.Baxendale	
to 210	RUBB/110	c.1800	to Thomas Hancock.	8.2x8.2
Glass				
Negatives				
- Box 2			111 Portrait of W.T.Brande,	
to 210	RUBB/111	c.1800	F.R.S. Mid -shot photograph	8.2x8.2
Glass				
Negatives			112 Letter from J.H.	
- Box 2			Gladstone, F.R.S. to Thomas	
to 210	RUBB/112	c.1800	Hancock.	8.2x8.2

			115 Letter dated 11 June	
			1920 from H.M.King George V	
			re Hancock's "Personal	
Glass			Narrative" to Sir C. Inigo	
			Thomas G.C.B. Cahirman of	
Negatives - Box 2				
		~ 1000	Messr. James Lyne Hancock	0 00 0
to 210	RUBB/115	c.1900	Limited.	8.2x8.2
Glass				
Negatives			116 Walter Hancock.	
- Box 2		1000	Portrait. Mid -shot	0 0 0 0
to 210	RUBB/116	c.1800	photograph	8.2x8.2
Glass				
Negatives			117 Original Blanchard	
- Box 2		1.0.0.0	Lathe, 1822. (Museum, US	
to 210	RUBB/117	c.1800	Armory, Springfield. Mass).	8.2x8.2
Glass				
Negatives			119 (2 negatives) Charles	
- Box 2			Babbage, F.R.S. portrait.	
to 210	RUBB/119	c.1800	Mid- shot photograph	8.2x8.2
			120 Fig.1 Symington & Miller	
Glass			first steam boat, 1788 in	
Negatives			the Museum, Register,	
- Box 2			Journal and Gazette NO. 488.	
to 210	RUBB/120	c.1800	December 15, 1832.	8.2x8.2
Glass				
Negatives				
- Box 2			121 Symington's first model	
to 210	RUBB/121	c.1800	steam carriage, 1784.	8.2x8.2
Glass			122 Braithwaite's first	
Negatives			steam fire engine "Comet",	
- Box 2			1832. Constructed for the	
to 210	RUBB/122	c.1800	Prussian government.	8.2x8.2
Glass			123 (2 negatives) Figs. 26	
Negatives			and 27 Drawing showing	
- Box 2			details of Thomson's road	
to 210	RUBB/123	c.1800	steamer "Ravee".	8.2x8.2
Glass				-
Negatives				
- Box 2			124 Portrait of Edwin M.	
to 210	RUBB/124	c.1800	Chafee. Mid -shot photograph	8.2x8.2
Glass				· · · · · · ·
Negatives			129 (2 negatives) Portrait	
- Box 2			of John Hall Gladstone,	
to 210	RUBB/129	c.1800	F.R.S. Mid -shot photograph	8.2x8.2
Glass				
Negatives			130 Portrait of R.W.	
- Box 2			Thomson. Mid -shot	
to 210	RUBB/130	c.1800	photograph	8.2x8.2
	1000/100	C.1000	Photograph	0.240.2
Glass			131 Portrait of R.W.	
Negatives	RUBB/131	c.1800	Thomson. Close up photograph	8.2x10.8
		0.1000	erobe ap photograph	J. 17710.0

- Box 2				
to 210				
0 210				
Glass				
Negatives			134 (2 negatives) Portrait	
- Box 2			of Sir Henry Wickham. Mid -	
to 210	RUBB/134	c.1800	shot photograph	8.2x8.2
Glass	100007 101	0.1000		0.2110.2
Negatives				
- Box 2			135 Portrait of J.B.Dunlop.	
to 210	RUBB/135	c.1800	Mid -shot photograph	8.2x8.2
Glass	10000/100	0.1000		0.240.2
Negatives			136 Portrait of Charles	
- Box 2			Kingston Welch. Mid -shot	
to 210	RUBB/136	c.1800	photograph	8.2x8.2
Glass	ROBB/150	C.1000		0.240.2
Negatives			137 Portrait of Harvey Du	
- Box 2			Cros, J.P. Mid -shot	
to 210	RUBB/137	c.1800	photograph	8.2x8.2
Glass		C.1000	138 Portrait of Richard	0.240.2
Negatives			Booth, Director of the	
- Box 2			Pioneer Company. Mid -shot	
to 210	RUBB/138	c.1800	photograph	8.2x8.2
Glass	RUDD/130	C.1000	139 Portrait of Frederick W.	0.280.2
Negatives - Box 2			Woods, director of the	
to 210	RUBB/139	c.1800	Pioneer Company. Mid -shot	8.2x8.2
Glass	RUDD/139	C.1000	photograph 140 Portrait of Richard J.	0.280.2
Negatives			Mecredy, Director of the	
– Box 2			Pioneer Company. Mid -shot	
to 210		~ 1000		0 00 0
	RUBB/140	c.1800	photograph	8.2x8.2
Glass			142 House in Stonehaven in	
Negatives				
- Box 2		~ 1000	which R.W.Thomson was born.	0 00 0
to 210	RUBB/142	c.1800	Mid -shot photograph	8.2x8.2
Glass			112 Dontroit of Dohort M	
Negatives - Box 2			143 Portrait of Robert W.	
- BOX 2 to 210	RUBB/143	c.1800	Thomson. (full body). Mid - shot photograph	8.2x8.2
Glass	NUDD/ 143	C.1000		0.280.2
Negatives			144 Portrait of R.W.Edlin	
- Box 2			and his wife. Mid -shot	
- Box 2 to 210		a 1900		8.2x8.2
CO 210 Glass	RUBB/144	c.1800	photograph	0.280.2
			145 Dortroit of Findley	
Negatives - Box 2			145 Portrait of Findlay Sinclair. Mid -shot	
- Box 2 to 210		c.1800		8.2x8.2
	RUBB/145	C.1000	photograph	0.280.2
Glass			158 Photomicrograph showing	
Negatives			compounding ingredient	
- Box 2		a 1000	imperfectly dispersed in	0 010 0
to 210	RUBB/158	c.1800	rubber.	8.2x10.8

Glass				
Negatives			163 Portrait of W.E.	
- Box 2			Bartlettt. Mid -shot	
to 210	RUBB/163	c.1800		8.2x8.2
10 210	RUDD/103	0.1000	photograph	0.280.2
a 1			164 Portrait of W.E.	
Glass			Bartlett riding a bike.	
Negatives			Photograph by W.T. Davidson	
- Box 2			Moffat N.B. Mid -shot	
to 210	RUBB/164	c.1800	photograph	8.2x8.2
Glass				
Negatives			165 (with duplicate)	
- Box 2			Portrait of C.O. Weber. Mid	
to 210	RUBB/165	c.1800	-shot photograph	8.2x8.2
Glass				
Negatives			166 (2 negatives) Portrait	
- Box 2			J.P.Joule, F.R.S. Mid -shot	
to 210	RUBB/166	c.1800	photograph	8.2x8.2
Glass			172 (with 6 film	
Negatives			photographs) Portrait of	
- Box 2			Charles de la Condamine	
to 210	RUBB/172	c.1800	1701-1775, plate.	8.2x8.2
Glass	10000/1/2	0.1000		0.240.2
Negatives			174 Portrait of Stephen	
- Box 2			Moulton. Mid -shot	
to 210	RUBB/174	c.1800		8.2x8.2
	RUBB/1/4	C.1000	photograph	0.2X0.2
Glass			178 (3 negatives and 5 film	
Negatives			photographs) Portrait of Sr	
- Box 2		1000	Clements Markham. Mid -shot	
to 210	RUBB/178	c.1800	photograph	8.2x8.2
Glass			180 Portrait of Charles	
Negatives			Goodyear. Painted in England	
- Box 2			by A.H. Ritchie. Mid -shot	
to 210	RUBB/180	c.1800	photograph	8.2x8.2
Glass			182 (2 negatives) Portrait	
Negatives			of William Murdoch, inventor	
- Box 2			of the gas lighting. Mid -	
to 210	RUBB/182	c.1800	shot photograph	8.2x8.2
Glass				
Negatives				
- Box 2			183 Portrait of Antoine du	
to 210	RUBB/183	c.1800	Foucroy, plate (in German).	8.2x8.2
Glass				
Negatives				
- Box 2			184 Portrait of Eugene	
to 210	RUBB/184	c.1800	Obach. Mid -shot photograph	8.2x8.2
Glass				
Negatives			186 Portrait of Christopher	
- Box 2			Columbus. Mid -shot	
to 210	דוקס / 10 ג	c.1800		8.2x8.2
LU ZIU	RUBB/186	C.1000	photograph	0.280.2

Glass				
			107 Ominingl Coles Oil Jame	
Negatives			187 Original Colza Oil Lamp	
- Box 2	/1 0 =	1000	used in Hancock's Works. Mid	
to 210	RUBB/187	c.1800	-shot photograph	8.2x8.2
			188 Portrait of William	
			Roxburgh, Superintendent of	
			the Botanic Gardens Calcutta	
Glass			from 1793 to 1813 (Survey Of	
Negatives			India Offices, Calcutta,	
- Box 2			February 1895). From an	
to 210	RUBB/188	c.1800	engraving by C. Warren	8.2x10.8
Glass	10000/100	0.1000		0.2110.0
Negatives				
- Box 2		1000	189 The jungle. Mid -shot	
to 210	RUBB/189	c.1800	photograph	8.2x8.2
Glass				
Negatives				
- Box 2			190 Felling in progress. Mid	
to 210	RUBB/190	c.1800	-shot photograph	8.2x8.2
Glass				
Negatives				
- Box 2			191 Clearing jungle. Mid -	
to 210	RUBB/191	c.1800	shot photograph	8.2x8.2
Glass	RODD/191	0.1000		0.270.2
Negatives				
- Box 2	/1 0 0	1000	192 Burning off felled	
to 210	RUBB/192	c.1800	jungle. Mid -shot photograph	8.2x8.2
Glass				
Negatives			193 Clearing timber after	
- Box 2			burning. Mid -shot	
to 210	RUBB/193	c.1800	photograph	8.2x8.2
Glass				
Negatives				
- Box 2			194 Draining in the jungle.	
to 210	RUBB/194	c.1800	Mid -shot photograph	8.2x8.2
Glass	,,		photograph	2.2110.2
Negatives			195 Holing, jungle in the	
- Box 2				
		a 1000	background. Mid -shot	0 00 0
to 210	RUBB/195	c.1800	photograph	8.2x8.2
Glass				
Negatives			196 Nurseries, seedlings six	
- Box 2			weeks old. Mid -shot	
to 210	RUBB/196	c.1800	photograph	8.2x8.2
Glass			197 Nurseries, seedlings	
Negatives			fourteen months old, out for	
- Box 2			planting out. Mid -shot	
to 210	RUBB/197	c.1800	photograph	8.2x8.2
Glass	,		198 Stumps planted out	
Negatives			fifteen months old showing	
- Box 2	RUBB/198	c.1800	new shoots. Mid- shot	8.2x8.2
DUX Z	NODD/ 190	C.1000	new Shouls. Mild- Shou	0.280.2

to 210			photograph	
0 210			photograph	
Glass				
Negatives				
- Box 2			199 Planting. Mid -shot	
to 210	RUBB/199	c.1800	photograph	8.2x8.2
Glass	RUBB/199	C.1000		0.280.2
Negatives - Box 2				
		- 1000	200 Weeding. Mid -shot	0 00 0
to 210	RUBB/200	c.1800	photograph	8.2x8.2
Glass				
Negatives			201 Terracing (blind	
- Box 2	1001		drains). Mid -shot	
to 210	RUBB/201	c.1800	photograph	8.2x8.2
Glass			202 Terracing showing	
Negatives			unterraced hill in	
- Box 2			background. Mid -shot	
to 210	RUBB/202	c.1800	photograph	8.2x8.2
Glass			203 Upkeep, showing deposits	
Negatives			from catchpits being spread	
- Box 2			round trees. Mid -shot	
to 210	RUBB/203	c.1800	photograph	8.2x8.2
Glass				
Negatives			204 Trees before manuring	
- Box 2			and terracing standing in	
to 210	RUBB/204	c.1800	grass. Mid -shot photograph	8.2x8.2
Glass			205 The same trees eighteen	
Negatives			months later (trees shown in	
- Box 2			slide 204). Mid -shot	
to 210	RUBB/205	c.1800	photograph	8.2x8.2
Glass			206 Two year old trees, soil	
Negatives			aerated after planting	
- Box 2			nitrogeneus plants. Mid -	
to 210	RUBB/206	c.1800	shot photograph	8.2x8.2
Glass				
Negatives				
- Box 2			207 Five year old trees. Mid	
to 210	RUBB/207	c.1800	-shot photograph	8.2x8.2
Glass				
Negatives			208 Special seed bearing	
- Box 2			trees thirteen years old.	
to 210	RUBB/208	c.1800	Mid -shot photograph	8.2x8.2
Glass	,		209 (2 negatives) Eighteen	
Negatives			year old tree with a girth	
- Box 2			of 110 inches. Mid -shot	
to 210	RUBB/209	c.1800	photograph	8.2x8.2
Glass			I	
Negatives			210 Diseased tree	
- Box 2			successfully treated. Mid -	
to 210	RUBB/210	c.1800	shot photograph	8.2x8.2
LU ZIU	NODD/ STO	C.1000		0.280.2

Class			211 Peculiar bark formation	
Glass				
Negatives			on poor yielding fifteen	
- Box 211		1.0.0.0	year old tree. Close up	
to 376	RUBB/211	c.1800	photograph	8.2x8.2
Glass				
Negatives				
- Box 211			212 Hospital showing native	
to 376	RUBB/212	c.1800	wards. Mid -shot photograph	8.2x8.2
Glass			213 (2 negatives) Hospital	
Negatives			dining room, showing	
- Box 211			attendants. Mid -shot	
to 376	RUBB/213	c.1800	photograph	8.2x8.2
Glass				
Negatives			214 Hospital interior	
- Box 211			showing women's ward. Mid -	
to 376	RUBB/214	c.1800	shot photograph.	8.2x8.2
Glass		0.1000	hundelshu.	
Negatives				
- Box 211			215 Tree showing tapping	
to 376	RUBB/215	c.1800	system. Close up photograph	8.2x8.2
Glass		C.1000	System, crose up photograph	0.240.2
Negatives				
- Box 211		1000	216 Tapping in progress. Mid	0 0 0 0
to 376	RUBB/216	c.1800	-shot photograph	8.2x8.2
Glass				
Negatives				
- Box 211			217 Tree after being tapped.	
to 376	RUBB/217	c.1800	Close up photograph	8.2x8.2
Glass				
Negatives			219 Transport of latex to	
- Box 211			factory by coolies. Mid -	
to 376	RUBB/219	c.1800	shot photograph	8.2x8.2
Glass				
Negatives				
- Box 211			220 Transport of latex by	
to 376	RUBB/220	c.1800	lorry. Mid -shot photograph	8.2x10.8
Glass				
Negatives				
- Box 211			221 Rubber estate factory.	
to 376	RUBB/221	c.1800	Mid -shot photograph	8.2x10.8
Glass				
Negatives			222 Receiving latex at the	
- Box 211			factory. Mid -shot	
to 376	RUBB/222	c.1800	photograph	8.2x10.8
Glass		C.1000	Риссодтари	0.2410.0
			224 Dolling rubbon ofter	
Negatives			224 Rolling rubber after	
- Box 211		~ 1000	coagulation. Mid -shot	0 010 0
to 376	RUBB/224	c.1800	photograph	8.2x10.8

a 1				
Glass				
Negatives			225 (2 negatives) Coagulum	
- Box 211			being converted into crepe.	
to 376	RUBB/225	c.1800	Mid -shot photograph	8.2x8.2
Glass				
Negatives			226 Women workers washing,	
- Box 211			milling and trimming crepe.	
to 376	RUBB/226	c.1800	Mid -shot photograph	8.2x10.8
Glass				
Negatives				
- Box 211			227 Workers in coagulating	
to 376	RUBB/227	c.1800	tanks. Mid -shot photograph	8.2x10.8
Glass	10000,22,	0.1000		0.2810.0
Negatives				
- Box 211			228 Drying crepe in vaccuum	
		~ 1000		0 210 0
to 376	RUBB/228	c.1800	dryers. Close up photograph	8.2x10.8
Glass			229 (2 negatives) Worker	
Negatives			with machinery for washing	
- Box 211	(scrap rubber. Mid -shot	
to 376	RUBB/229	c.1800	photograph	8.2x10.8
Glass				
Negatives			230 (2 negatives) Sheets	
- Box 211			hanging on racks in smoke	
to 376	RUBB/230	c.1800	house. Mid -shot photograph	8.2x10.8
Glass				
Negatives				
- Box 211			231 Exterior of crepe drying	
to 376	RUBB/231	c.1800	rooms. Mid -shot photograph	8.2x10.8
Glass				
Negatives				
- Box 211			232 Interior of crepe drying	
to 376	RUBB/232	c.1800	rooms. Close up photograph	8.2x8.2
Glass		0.1000	233 (2 negatives)	
Negatives			Despatching rubber from	
- Box 211			factory by bullock carts.	
to 376	RUBB/233	c.1800	Mid -shot photograph	8.2x8.2
	NUDD/233	C.1000		0.280.2
Glass				
Negatives			234 Transport of rubber to	
- Box 211		1000	railway by motor lorry. Mid	0 0 1 0 0
to 376	RUBB/234	c.1800	-shot photograph	8.2x10.8
Glass			235 Unloading rubber from	
Negatives			Wallams for storage before	
- Box 211			shipment. Mid -shot	
to 376	RUBB/235	c.1800	photograph	8.2x8.2
Glass				
Negatives			236 Loading rubber on	
- Box 211			steamer for direct shipment.	
to 376	RUBB/236	c.1800	Mid shot photograph	8.2x10.8
	,	-	T 7 - T	

01				
Glass				
Negatives			237 (2 negatives) Tire-	
- Box 211			building machine. Flat drum	
to 376	RUBB/237	c.1800	type. Close up photograph	8.2x8.2
Glass				
Negatives				
- Box 211			238 Tire tube assembling	
to 376	RUBB/238	c.1800	shop. Close up photograph	8.2x8.2
Glass	11022, 200	0.1000		
Negatives			239 Battery of tube	
- Box 211			vulcanisers. Close up	
		- 1000	-	0 0 0 0
to 376	RUBB/239	c.1800	photograph	8.2x8.2
Glass			240 Battery of washing	
Negatives			machines used for	
- Box 211			vulcanising. Mid -shot	
to 376	RUBB/240	c.1800	photograph	8.2x10.8
Glass			241 (3 negatives) Large roll	
Negatives			mill with man operating the	
- Box 211			machinery. Mid -shot	
to 376	RUBB/241	c.1800	photograph	8.2x8.2
Glass				
Negatives			243 Three-bowl calendar in	
- Box 211			operation. Front side. Mid -	
to 376	RUBB/243	c.1800	shot photograph	8.2x8.2
Glass	RUDD/245	C.1000		0.220.2
Negatives			244 (2 negatives) Beaded-	
- Box 211		1000	edge tire being removed from	
to 376	RUBB/244	c.1800	mould. Close up photograph	8.2x8.2
Glass				
Negatives			245 Carrying-frame for	
- Box 211			vulcanising cycle inner	
to 376	RUBB/245	c.1800	tubes. Mid -shot photograph	8.2x10.8
Glass			246 (3 negatives) Removing	
Negatives			pneumatic tires moulds from	
- Box 211			autoclave. Mid -shot	
to 376	RUBB/246	c.1800	photograph	8.2x8.2
Glass			247 (2 negatives) Pneumatic	
Negatives			tire moulding shop with	
- Box 211			workmen. Mid -shot	
to 376	RUBB/247	c.1800	photograph	8.2x8.2
		C.1000	248 (2 negatives) Hydraulic	0.240.2
Glass			guillotine cutting block of	
Negatives			raw rubber with personnel	
- Box 211		1	present. Mid -shot	
to 376	RUBB/248	c.1800	photograph	8.2x8.2
Glass			249 Fort Dunlop railway	
Negatives			sliding – unloading raw	
- Box 211				
DON 211			rubber (showing packages	
-			sliding – unloading raw	

Glass				
Negatives				
- Box 211			250 Duplop Cord Pollop tiro	
to 376		c.1800	250 Dunlop Cord Ballon tire.	8.2x8.2
	RUBB/250	C.1800	Close up photoghraph	0.280.2
Glass				
Negatives				
- Box 211		1000	251 View of Fort Dunlop. Mid	
to 376	RUBB/251	c.1800	-shot photograph	8.2x8.2
Glass				
Negatives				
- Box 211			258 Baker-Perkins internal	
to 376	RUBB/258	c.1900	mixer. Mid -shot photograph	8.2x8.2
Glass			260 Vulcanisation ovens for	
Negatives			curing footwear by dry heat	
- Box 211			(man operated). Mid -shot	
to 376	RUBB/260	c.1900	photograph	8.2x8.2
Glass				
Negatives			261Plantation washing mills	
- Box 211			driven by gas engine. Mid -	
to 376	RUBB/261	c.1900	shot photograph	8.2x8.2
Glass				
Negatives			262 (2 negatives) Hunter	
- Box 211			drying kiln - exterior. Mid	
to 376	RUBB/262	c.1900	-shot photograph	8.2x8.2
Glass				
Negatives				
- Box 211			263 Sectional diagram of	
to 376	RUBB/263	c.1900	Hunter drying kiln.	8.2x8.2
	110227200	0.1000	266 (2 negatives) Large	
Glass			mixing mill at maker's work.	
Negatives			(Photo by Fry.Ltd Malden	
- Box 211			Crescent, London NW1) Mid -	
to 376	RUBB/266	c.1900	shot photograph	8.2x8.2
Glass	10007200			0.240.2
Negatives				
- Box 211			267 Special medium strength	
to 376	RUBB/267	c.1900	mill. Close up photograph	8.2x8.2
Glass	1000/20/	C.1900		0.280.2
Negatives			268 (two negatives) Single	
2				
- Box 211		a 1000	roll masticator (interior).	0 00 0
to 376	RUBB/268	c.1900	Close up photograph	8.2x8.2
Glass				
Negatives			269 Three-bowl calendars,	
- Box 211		1.000	87" x 30". Close up	
to 376	RUBB/269	c.1900	photograph.	8.2x8.2
Glass				
Negatives			270 Small four-bowl	
- Box 211			calendar. Francis Shaw & Co.	
to 376	RUBB/270	c.1900	Ltd. Close up photograph	8.2x8.2

Glass				
			271 Bolt driven emboaging	
Negatives			271 Belt driven embossing	
- Box 211		1.0.0.0	calendar. Close up	
to 376	RUBB/271	c.1900	photograph	8.2x8.2
			272 Three-mould hydraulic	
Glass			platen press. Francis Shaw &	
Negatives			Co. Ltd. of Bradford,	
- Box 211			Manchester. Close up	
to 376	RUBB/272	c.1900	photograph	8.2x8.2
Glass	11022, 2, 2	0.1000		
Negatives			273 Ten ram hydraulic	
- Box 211			_	
		- 1000	belting press. Close up	0 00 0
to 376	RUBB/273	c.1900	photograph	8.2x8.2
Glass				
Negatives			274 Autoclave vulcaniser for	
- Box 211			tractor tires. Close up	
to 376	RUBB/274	c.1900	photograph	8.2x8.2
Glass				
Negatives				
- Box 211			275 Cycle tire vulcaniser.	
to 376	RUBB/275	c.1900	Close up photograph	8.2x10.8
20 370	10000,210	0.1900	276 Diagram of TAG	0.2110.0
			controller connections for	
			autoclave vulcaniser.	
			Francis Shaw & Co.Ltd.,	
Glass			Engineers, Bradford.	
Negatives			Manchester. Automatic	
- Box 211			control of temperature,	
to 376	RUBB/276	c.1900	exhaust, time and blow off.	8.2x8.2
			277 Diagram of TAG	
Glass			controller.Drawing	
Negatives			No.11971.Francis Shaw & Co.	
- Box 211			Ltd. Engineers, Bradford.	
to 376	RUBB/277	c.1900	Manchester.	8.2x8.2
Glass	RODD/277	C.1900	Manchester.	0.240.2
Negatives				
- Box 211		1.0.0.0	278 Diagram of lead press	
to 376	RUBB/278	c.1900	with details.	8.2x8.2
Glass			279 Bolton vertical bias	
Negatives			fabric cutter. Francis Shaw	
- Box 211			& Co.Ltd., Manchester. Close	
to 376	RUBB/279	c.1900	up photograph	8.2x8.2
			280 Thropp tire-building	
			machine for high pressure	
			tires with details. Thorpp	
Glass			Patent No.29234. Francis	
Negatives			Shaw & Co.Ltd. Bradford,	
-				
- Box 211		- 1000	Manchester. Close up	
to 376	RUBB/280	c.1900	photograph	8.2x8.2

Glass				
Negatives			281 Double watch-case	
- Box 211			vulcaniser. Close up	
to 376	RUBB/281	c.1900	photograph	8.2x8.2
Glass	· ·		282 Healey-Shaw cycle-tire-	
Negatives			building machine. Francis	
- Box 211			Shaw & Co. Ltd. Manchester.	
to 376	RUBB/282	c.1900	Close up photograph	8.2x8.2
Glass			283 Sykes double helical	
Negatives			gear cutter. Francis Shaw &	
- Box 211			Co. Ltd. Manchester. Close	
to 376	RUBB/283	c.1900	up photograph	8.2x8.2
Glass			284 H.P.M. Hydraulic Press.	
Negatives			Francis Shaw & Co. Ltd.	
- Box 211			Manchester. Close up	
to 376	RUBB/284	c.1900	photograph	8.2x8.2
Glass	, _ • -		285 Graph. Stress-strain	
Negatives			curves and hysteresis loops	
- Box 211			for 5 types of vulcanised	
to 376	RUBB/285	c.1900	rubber.	8.2x8.2
	- ,		286 David Bridge & Co. Ltd.	
Glass			Castleton, Licencees for	
Negatives			Sole Mixers. Bridge-Banbury	
- Box 211			Internal Mixer No.3. Close	
to 376	RUBB/286	c.1900	up photograph	8.2x8.2
Glass				
Negatives			287 Bridge-Banbury Internal	
- Box 211			Mixer No.9. Bridge-Banbury	
to 376	RUBB/287	c.1900	Patents. Close up photograph	8.2x8.2
Glass				
Negatives			288 Bridge-Banbury Internal	
- Box 211			Mixer, sectional diagram	
to 376	RUBB/288	c.1900	with details.	8.2x8.2
			289 Drawing of spreading	
			machine. Bridge's Improved	
			Spreading Machine for	
			Garment Cloth, Card	
			Clothing, Waterproofing, etc.	
			Photograph of machine fitted	
Glass			with Mild Steel Steam	
Negatives			Chests. Agents for the	
- Box 211			continent of Europe,	
to 376	RUBB/289	c.1900	Baerlein & Sons. Manchester.	8.2x8.2
Glass	,			
Negatives			290 Spreading machines in	
- Box 211			waterproof garment factory.	
to 376	RUBB/290	c.1900	Mid -shot photograph	8.2x10.8
	,			
Glass			291 Diagram of three methods	
Negatives			of testing permeability of	
- Box 211	RUBB/291	c.1900	rubber or rubberised fabric	8.2x8.2

to 376 to gases. Class Negatives - Box 211 to 376 RUBB/292 c.1900 C.1900 C.1900 RUBB/292 c.1900 RUBB/292 c.1900 Close up photograph British Rubber Co. Ltd. for testing balloon fabric, 1916-18. Mid shot photograph British Rubber Co. Ltd. For testing balloon fabric, 1916-18. Working bench. Close up photograph S.2x8.2 294 Personnel of the North British Rubber Co. Ltd., Negatives - Box 211 to 376 RUBB/294 c.1900 Close up photograph British Rubber Co. Ltd., balloon fabric testing laboratory, 1918. Mid -shot photograph S.2x8.2 295 Graph on the effects of various ferrocyanides on the plasticity of unvulcanised stocks. Data from J.R.Scott: note on the behaviour of Prussian blue and other ferrocyanides in rubber. I.R.I. Transactions 1929, 4, 374. Twelve curves are given, plotting log thickness, using the Williams plastimeter. (Curve 1: 95:5 rubber-sulphur stock; curves
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of change of thickness, using the Williams plastimeter. (Curve 1: 95:5
using the Williams plastimeter. (Curve 1: 95:5
plastimeter. (Curve 1: 95:5
rubber-sulphur stock; curves
2-6 same; containing 12
parts of 2 Prussian blue.
Curve 3: Turnbull's blue; 4:
lead ferrocyanide, curve 5:
Glass zinc ferrocyanide; 6: gas
Negatives black. Curves 7 to 12 as
- Box 211 curves 1 to 6, except that
to 376 RUBB/295 c.1900 sulphur is absent. 8.2x8.2
296 Tabulation. Effects of
various ferrocyanides on the
plasticity of unvulcanised
stocks. Consistency and
Glass friction figures are given
Negatives for the same stock described
- Box 211 in negative 295. (see
to 376 RUBB/296 c.1900 negative 295) 8.2x8.2

	1			1
			297 Graph of the increase in	
			weight of unvulcanised	
			rubbber containing various	
			ferrocyanides. (See neagtive	
			295). Increase in wieght is	
Glass			plotted against time in days	
Negatives			for stocks Nrs. 1, 2, 3, 7,	
- Box 211			8 and 9 (described in	
-		- 1000		0 0 0 0
to 376	RUBB/297	c.1900	negative 295).	8.2x8.2
			298 (2 negatives) Tables 1	
			and 2. Tabulation: tensile	
			properties of vulcanised	
			rubbers containing various	
			ferrocyanides. (See negative	
			295). States time of	
			vulcanisation, tensile	
			strength and % elongation at	
			0.5 kg/mm2 of vulcanised	
			5	
			stocks Nrs. 1, 2, 3, 4, 5	
			and 6 (described in negative	
			295). Also curve 13 is for a	
			rubber containing zinc	
			oxide, titanium white and	
			diphenylguanidine. Curves 14	
Glass			and 15 are for the same	
Negatives			rubber containing Prussian	
- Box 211			blue and Turnbull's blue	
to 376	RUBB/298	c.1900	respectively.	8.2x8.2
	10000,200	0.1900	299 Graph of tensile	0.240.2
			strength changes during	
			2 <u>2</u> <u>2</u>	
			ageing at 70 oC of	
			vulcanised rubbers	
			containing various	
			ferrocyanides. (I.R.I.	
			Transactions, 1929, 4, 390.	
			Fig. 5. The curves given are	
Glass			for stocks 1, 2, 3, 4 and 5	
Negatives			(described in negative 295).	
- Box 211			Curves 13, 14 and 15 are	
to 376	RUBB/299	c.1900	described in negative 298.	8.2x8.2
			300 Graph of tensile	
			strength changes during	
			natural ageing of vulcanised	
			rubbers containing various	
			ferocyanides. (See note in	
Glass			negative 295). Ageing curves	
Negatives			are given for rubbers Nos.1,	
- Box 211			2, 3, 4 and 5 described in	
		c.1900		
to 376	RUBB/300		negative 295.	8.2x8.2

			301 Graph of changes in	
			weight during natural ageing	
			of vulcanised rubbers	
			containing various	
			ferrocyanides. (See note in	
			negative 295). Curves are	
Glass			given for rubbers Nos.1, 2	
Negatives			and 3 described in negative	
- Box 211			295 and for Nos. 13, 14, and	
to 376	RUBB/301	c.1900	15 in negative 298.	8.2x8.2
			302 Photomicrograph of Hevea	
Glass			latex, showing pear- shaped	
Negatives			rubber globule. (Forms front	
- Box 211			species to "Latex". 1928 by	
to 376	RUBB/302	c.1900	H.P.Stevens)	8.2x10.8
Glass				7
Negatives				
- Box 211			304 Shaw's Mixing mill, 84".	
to 376	RUBB/304	c.1900	Close up photograph	8.2x8.2
Glass	10001004	C.1700	CIOSC UP PHOCOGIAPH	0.240.2
Negatives				
- Box 211			305 Refining mill. Close up	
to 376	RUBB/305	c.1900	photograph	8.2x8.2
Glass				
Negatives				
- Box 211			306 Four-bowl calendar, 92"	
to 376	RUBB/306	c.1900	x 32". Mid -shot photograph	8.2x8.2
	RUBB/ JUU	C.1900		0.280.2
Glass			307 Francis Shaw & Co. Ltd.	
Negatives			(Bradford, Manchester)	
- Box 211			embossing calendar. Close up	
to 376	RUBB/307	c.1900	photograph	8.2x8.2
Glass				
Negatives			308 Semi-automatic single	
- Box 211				
		~ 1000	daylight platen press. Close	0 00 0
to 376	RUBB/308	c.1900	up photograph	8.2x8.2
			309 Daylight 14-platen	
			hydraulic press with pump,	
Glass			accumulator and intensifier.	
Negatives			Francis Shaw & Co. Ltd.	
- Box 211			Bradford, Manchester. Close	
to 376	RUBB/309	c.1900	up photograph	8.2x8.2
	1007002	C.1900		0.240.2
			311 Graph of uniform	
			compression of sponge rubber	
			sheet (depression in mm	
			against load per sq.cm in	
			kilograms). Compressibility	
Glass			of eight samples of sponge	
Negatives			rubber including one sample	
- Box 211			of cellular rubber. (I.R.I.	
		- 1000		
to 376	RUBB/311	c.1900	Trans., 1929, <u>4,</u> 537. Fig.1)	8.2x8.2

-			210 0 1 0 1111	
			312 Graph of compressibility	
			(sq.cm/kg) against mean cell	
			diameter (mm). Variation of	
Glass			compressibility of sponge	
Negatives			rubber with size of cell.	
- Box 211			(I.R.I. Trans., 1929, 4,	
to 376	RUBB/312	c.1900	541, Fig.2)	8.2x8.2
Glass			313 Section of light sponge	
Negatives			rubber. (I.R.I. Trans.,	
- Box 211			1929, 4, facing p.540,	
to 376	RUBB/313	c.1900	Fig.A3)	8.2x10.8
Glass	11022, 010		314 Section of sponge	0.1110.0
Negatives			rubber, medium cells.	
- Box 211			(I.R.I. Trans., 1929, <u>4</u> ,	
to 376	/ 21 / ממוזמ	a 1000		8.2x10.8
Glass	RUBB/314	c.1900	facing p.540, Fig. A-1)	0.2810.0
			315 Section of sponge	
Negatives			rubber, large cells. (I.R.I.	
- Box 211	(Trans., 1929, <u>4,</u> facing	
to 376	RUBB/315	c.1900	p.54, Fig. A-5)	8.2x10.8
			316 (2 negatives) Two	
			sections of heavy sponge	
Glass			rubber and one of cellular	
Negatives			rubber. (I.R.I. Trans.,	
- Box 211			1929, <u>4</u> , facing p.541,	
to 376	RUBB/316	c.1900	Fig.B-1, B-2, C-1)	8.2x10.8
			317 Graph of resilient	
			energy against vols.whiting	
			per 100 vols.rubber. Effect	
			on resilent energy of	
			vulcanised rubber of	
			increasing content of	
			whiting. (I.R.I. Trans.,	
			1926, 1, 361, Fig.1. Two	
			curves are given, the lower	
			referring to varying the	
			whiting from 0-50 vols. per	
			100 vols. of rubber in a	
			95:5 rubber-sulphur mix. And	
Glass			the upper curve to a similar	
Negatives			range of whiting contents in	
- Box 211			a rubber-sulphur-litharge	
to 376	RUBB/317	c.1900	mix).	8.2x8.2

	1			
			318 Graph of elongation,	
			rigidity, permanent set,	
			resilience, hardness and	
			resilient energy. Mechanical	
			properties of vulcanised	
			rubbers containing various	
			ratios of carbon black to	
			zinc oxide, and carbon black	
			to clay. (I.R.I. Trans.,	
			1926, <u>1</u> , 363, Fig.2. Curves	
			are given showing effect of	
			varying the ratios carbon	
			black: zinc oxide and carbon	
			black: clay on % elongation	
			at standard load, rigidity,	
			permanent set, hardness,	
			resilence, "slope",	
Glass			resilient energy at fixed	
Negatives			load, and stretch-	
- Box 211			illustrating departure from	
to 376	RUBB/318	c.1900	the mixture law.)	8.2x8.2
			319 Graph of scleroscope	
			rebound against temperature	
			in Fahrenheit (F). Effect of	
			temperature on scleroscope	
			rebound test of vulcanised	
			rubber. (I.R.I. Trans.,	
			1927, <u>3</u> , 220, Fig.1. Three	
			curves are given, referring	
Glass			to a zinc oxide rubber, a	
Negatives			carbon black rubber, and the	
- Box 211			95:5 rubber-sulphur parent	
to 376	RUBB/319	c.1900	stock)	8.2x8.2
			320 Graph of scleroscope	
			rebound against minutes	
			cure. Effect of time of	
			vulcanisation on the	
			scleroscope rebound for	
			-	
			various vulcanised rubbers.	
			(I.R.I Trans., 1927, <u>3,</u> 221,	
			Fig.2. Four curves are	
			given, relating to rubbers	
			containing (a) carbon black,	
Glass			(b) magnesium carbonate, (c)	
Negatives			zinc oxide, and (d) for the	
- Box 211			95:5 rubber- sulphur parent	
to 376	RUBB/320	c.1900	stock)	8.2x8.2
20 010	, 020	2.2200	,	

		1		
			321 Graph of scleroscope	
			rebound against compounding	
			ingredient % by weight.	
			Effect on scleroscope	
			rebound of increasing the	
			content of compounding	
			ingredient in various	
			vulcanised rubbers. (I.R.I.	
			Trans., 1927, 3, 222, Fig.	
			3. Five curves are given for	
			rubbers containing	
			_	
Glass			increasing amounts of (a)	
Negatives			litharge, (b) zinc oxide, c)	
- Box 211			whiting, (d) gas black, and	
to 376	RUBB/321	c.1900	(e) magnesium carbonate.)	8.2x8.2
			322 Graph of seconds per ten	
			swings (durometer reading)	
			against barium sulphate,	
			weight%. Effect of	
			2	
			increasing content of	
			barytes on the hardness of	
			vulcanised rubber, as	
Glass			measured by the Durometer	
Negatives			and the Herbert Pendulum.	
- Box 211			(I.R.I. Trans., 1927, 3,	
to 376	RUBB/322	c.1900	Fig.4; p.224)	8.2x8.2
	11022, 022	0.1000	323 Graph of plastometer	
			against durometer, showing	
			lines of regression. Lines	
			of regression, correlation	
			of Durometer and Pusey-Jones	
Glass			plastometer methods of	
Negatives			measuring hardness of	
- Box 211			vulcanised rubber. (I.R.I.	
to 376	RUBB/323	c.1900	Trans., 1927, 3, 225, Fig.5)	8.2x8.2
	11022, 020	0.1000	324 Graph of plastometer	0.110.11
			mm/100 against scleroscope	
			5 1	
			rebound. Correlation of	
			Pusey-Jones plastometer and	
			scleroscope rebound tests	
			for measuring hardness of	
			vulcanised rubber. (I.R.I.	
			Trans., 1927, 3, 227, Fig.6.	
			Curves are given for rubbers	
Glass			compounded with (a) whiting,	
Negatives			(b) magnesium carbonate, (c)	
- Box 211	/		litharge, (d) lampblack, (e)	
to 376	RUBB/324	c.1900	gas black.)	8.2x8.2

		r		
			325 Tabulation Distribution	
Glass			of scleroscope and Pusey-	
Negatives			Jones plastometer results in	
- Box 211			testing hardness of	
to 376	RUBB/325	c.1900	vulcanised rubbers	8.2x8.2
	11022, 020	0.12000	326 Graph of pendulum (secs/	0.110.1
			10 swings) against	
			mms.thickness. Effect of	
			thickness of sample on	
			hardness testing of	
			vulcanised rubber by the	
Glass			scleroscope, Herbert	
Negatives			pendulum and the Durometer.	
- Box 211			(I.R.I. Trans., 1927, 3,	
to 376	RUBB/326	c.1900	229, Fig.7)	8.2x8.2
10 370	RODD/ 520	C.1900		0.280.2
			327 Graph. Effect of size of	
			sample hardness testing of	
			vulcanised rubber by the	
Glass			Durometer, scleroscope, and	
Negatives			Pusey-Jones plastometer	
- Box 211			(I.R.I. Trans., 1927, 3,	
to 376	RUBB/327	c.1900	231, Fig.8)	8.2x8.2
			328 Graph of swelling	
			against time (time-swelling	
			curve). Typical time-	
a 1			swelling curve for	
Glass			vulcanised rubber in contact	
Negatives			with solvent. (Very similar	
- Box 211			to I.R.I. Trans., 1929, <u>5</u> ,	
to 376	RUBB/328	c.1900	97, Fig.1)	8.2x8.2
			329 Tabulation of rubber	
			sulphur mixing (95:5)	
			swollen at 25oC. Swelling	
			maximum, and increment (per	
			100 hours) for vulcanised	
			95:5 rubber-sulphur mix in	
			various solvents. (data	
			from: J. R. Scott, Swelling	
			of vulcanised rubber in	
			liquids, I.R.I. Trans.,	
			1929, 5, 95. The solvents	
			mentioned are benzene,	
			decahydronaphthalene	
			(dekalin), petroleum ether,	
			paraffin oil, chlorobenzene,	
			nitrobenzene, carbon tetra-	
			chloride, carbon disulphide,	
Glass			chloride, aniline, methyl-	
Negatives			anilide, cyclohexanol,	
- Box 211			cyclohexanone, cyclohexane,	
to 376	RUBB/329	c.1900	cyclohexyl acetate, acetone,	8.2x8.2
00 070		3.1900		

	1	1		
			ethyl alcohol, ethyl acetate	
			and amyl acetate.)	
			<u>,</u>	
			220 Craph of gualling time	
			330 Graph of swelling time	
			against viscosity	
			(centipoises). Relationship	
			between the viscosity of a	
			_	
Glass			solvent and it swelling time	
Negatives			for vulcanised rubber.	
- Box 211			(I.R.I. Trans., 1929, 5,	
		1000		
to 376	RUBB/330	c.1900	102, Fig. 2)	8.2x8.2
			331 Tabulation. Relative	
			swelling increment of a	
			vulcanised 95:5 rubber-	
			sulphur mix in benzene and	
			in benzene plus added	
			_	
			substances. (See note under	
			negative 329. Substances	
			added include chloracetic	
			acid, trichloracetic acid,	
			aniline, pyridine, copper	
			oleate, mangnesium oleate,	
			benzoyl, peroxide, benzoyl,	
			"Age Rite", "VGB", peroxide,	
			turpentine, sulphur	
			diphenylguanidine, p-	
Glass			nitrosodimethylaniline,	
Negatives			quinol, tetramethylthiuram	
- Box 211			disulphide, rubber resin	
		~ 1000		0 20 2
to 376	RUBB/331	c.1900	(crepe) and water.)	8.2x8.2
			332 Graph. Relationship	
			between swelling maximum and	
			mechanical properties of	
			various vulcanised rubbers.	
			(I.R.I. Trans., 1929, 5, 113	
			, Fig. 4. Swelling maximum	
			is plotted against hardness	
			and elongation at 0.75	
Glass			kg/mm2 of rubbers compounded	
Negatives			with (a) whiting, (b) gas	
- Box 211			black, (c) glue, (d)	
to 376	RUBB/332	c.1900	magnesium carbonate, (e)	8.2x8.2
	,		, , , , , , , , , , , , , , , , , , ,	

F				
			litharge, (f) zinc oxide.	
			The relationship for barytes	
			is given for the latter	
			property only.)	
			propercy onry ,	
			333 Graph of swelling	
			maximum against volume	
			_	
			percentage filler. Effect on	
			increasing content of	
			fillers on the swelling	
			maximum of vulcanised	
			rubber. (I.R.I. Trans.,	
			1929, 5, 108, Fig.3. Curves	
Glass			are given for barytes,	
Negatives			whiting, magnesium	
-				
- Box 211		- 1000	carbonate, glue, zinc oxide,	0 00 0
to 376	RUBB/333	c.1900	litharge and gas black.)	8.2x8.2
			334 Tabulation. Chemical	
			properties of samples of gas	
			balck, acetylene black and	
			lampblack. (I.R.I. Trans.,	
			1929, 5, 49, Table I.	
			Properties given are:	
			moisture, ash and carbon	
			contents; nitrogen (total	
Glass			and calculated as NH4);	
Negatives			sulphur (total and	
- Box 211			calculated as SO4); acetone,	
to 376	RUBB/334	c.1900	ether, and water extracts.)	8.2x8.2
			335 Tabulation. Physical	
			properties of samples of gas	
			black, acetylene black, and	
			lampblack. (I.R.I. Trans.,	
			1929, 5, 51, Table II.	
			Properties given are:	
Glass			colour, pigmenting powder,	
Negatives			bulk, specific gravity,	
- Box 211			particle sizes in alcohol:	
to 376	RUBB/335	c.1900	water, Brownian movement.)	8.2x8.2
			336 Graph of centimetres	
			settled against hours.	
			Sedimentation of acetylene	
Glass			black, gas black and	
Negatives			lampblack in 50% alcohol.	
- Box 211	/=		(I.R.I. Trans., 1929, <u>5</u> , 52,	
to 376	RUBB/336	c.1900	Fig.1)	8.2x8.2

			227 Group of $1 + 1 7$	
			337 Graph of kilos/mm2	
			against carbon black% by	
			weight. Change in tensile	
			strength of vulcanised	
			rubber with increasing	
Glass			quantities of acetylene	
Negatives			black, gas black and	
- Box 211			lampblack. (I.R.I.Trans.,	
to 376	RUBB/337	c.1900	1929, <u>5,</u> 52,Fig.2)	8.2x8.2
			338 Graph of elongation (%)	
			against carbon black % by	
			weight. Change in elongation	
			at 0.75 kg/mm2 of vulcanised	
			rubber with increasing	
Glass			quantities of acetylene	
Negatives			black, gas black and	
- Box 211			lampblack (I.R.I. Trans.,	
to 376	RUBB/338	c.1900	1929, 5, 55, Fig.3)	8.2x8.2
			339 Graph of foot.lbs/cubic	
			inch against carbon black	
			(%) by weight. Change in	
			energy absorbed to rupture	
			of vulcanised rubber	
			containing increasing	
Glass			quantities of acetylene	
Negatives			black, gas black and	
- Box 211			lampblack. (I.R.I. Trans.,	
to 376	RUBB/339	c.1900	1929, <u>5</u> , 56, Fig.4)	8.2x8.2
	ICODE/ 555	0.1900	340 Graph of permanent set %	0.240.2
			against carbon black % by	
			weight. Change in permanent	
			set of vulcanised rubbers	
			containing increasing	
Glass			5 5	
			quantities of acetylene	
Negatives - Box 211			black, gas black and	
-	י א לא לא איז איז איז איז איז איז איז איז איז אי	a 1000	lampblack. (I.R.I. Trans.,	8.2x8.2
to 376	RUBB/340	c.1900	1929, <u>5</u> , 56, Fig.5)	0.280.2
			341 Graph of durometer	
			numbers against carbon black	
			% by weight. Change in	
			hardness of vulcanised	
			rubbers containing	
Glass			increasing quantities of	
Negatives			acytelene black, gas black	
- Box 211		~ 1000	and lampblack. (I.R.I.	0 00 0
to 376	RUBB/341	c.1900	Trans., 1929, <u>5</u> , 57, Fig. 6)	8.2x8.2
<u></u>			342 Graph of scleroscope	
Glass			numbers against carbon black	
Negatives			% by weight. Change in	
- Box 211		1.000	scleroscope resilience of	
to 376	RUBB/342	c.1900	vulcanised rubbers	8.2x8.2

·				1
			containing increasing	
			quantities of acytelene	
			black, gas black and	
			lampblack. (I.R.I. Trans.,	
			1929, 5, Fig.7)	
			343 Tabulation. Per cent	
			difference of vulcanised	
			rubbers containing 15%	
			acytelene black and 15% gas	
			black form those containing	
			15% lampblack. (I.R.I.	
			Trans., 1929, 5, 59, Table	
			III. Properties listed are:	
			tensile strength, %	
Glass			elongation at 0.75% kg/mm2,	
Negatives			rigidity, reinforcing power,	
- Box 211			permanent set, specific	
to 376	RUBB/343	c.1900	gravity, hardness.)	8.2x8.2
			344 Tabulation. Per cent	
			difference of vulcanised	
			tire tread rubbers	
			containing gas black and	
			acytelene black from those	
			containing lampblack.	
			(I.R.I. Trans., 1929, 5, 60,	
			<u> </u>	
			Table V. Properties listed	
Glass			are: tensile strength, %	
Negatives			elongation at 0.75 kg/mm2,	
- Box 211			rigidity, permanent set,	
to 376	RUBB/344	c.1900	hardness.)	8.2x8.2
			345 Graph of elongation %-	
			kilos per mm2 against	
			minutes cure. Discontinuity	
			in the vulcanisation of	
			rubbers containing carbon	
			3	
			black in the presence of	
			hexamethylenetetramine.	
			(I.R.I. Trans., 1929, <u>5</u> , 62,	
			Fig.8. The curves relate to	
			tensile strength and $\%$	
			elongation at 0.5 kg/mm2 of	
Glass			accelerated rubbers	
Negatives			containing gas black,	
- Box 211			acytelene black and	
to 376	RUBB/345	c.1900	lampblack.)	8.2x8.2

			346 Graph of permanent set %	
			against minutes cure.	
			Discontinuity in the	
			vulcanisation of rubbers	
			containing carbon black in	
			5	
			the presence of	
			hexamethylenetetramine.	
			(I.R.I. Trans., 1929, <u>5.</u> ,	
			63, Fig. 9 The curves relate	
			to hardness and permanent	
Glass			set of accelerated rubbers	
Negatives			containing gas black,	
- Box 211			acetylene black and	
		- 1000	_	0 0 0 0
to 376	RUBB/346	c.1900	lampblack.)	8.2x8.2
			347 Graph of reduction in	
			time of cure as % of	
			accelerators cure against	
			accelerators with 1 % ZNO.	
			Effect of acytelene black,	
			gas black and lampblack on	
			reduction of time of cure by	
			-	
			organic accelerators in the	
			presence of 10% zinc oxide.	
			(I.R.I. Trans., 1929, <u>5</u> , 64	
			Fig. 10. Accelerators	
			studied are: p-	
			nitrosodimethylaniline,	
Glass			hexamethylenetetramine,	
Negatives			diphenylguanidine and	
- Box 211			piperidine piperidine -1-	
		- 1000		0 0 0 0
to 376	RUBB/347	c.1900	carbothionolate.)	8.2x8.2
			348 Tabulation: Variability	
			of acetylene black.	
			Differences in mechanical	
			properties of rubber	
			compounded with 6 different	
			batches. (I.R.I.Trans.,	
			1929, 5, 67, Table VIII.	
			:Properties studied are:	
			_	
			elongation at 0.75% kg/mm2,	
			rigidity, hardness,	
			reinforcing energy, tensile	
			strength, % elongation at	
			break, permanent set,	
Glass			resilience and permanent set	
Negatives			after rupture. The last	
- Box 211			property is not included in	
		a 1000		0 2 0 2
to 376	RUBB/348	c.1900	the reference given above.)	8.2x8.2

		1		
Glass			349 Storage tube for drying	
Negatives			small sample of rubber in	
- Box 211			vacuo. (I.R.I. Trans., 1929,	
to 376	RUBB/349	c.1900	<u>5</u> , 74, Fig.1)	8.2x8.2
Glass				
Negatives			350 Diagram of apparatus for	
- Box 211			filtering rubber solution	
to 376	RUBB/350	c.1900	out of contact with air.	8.2x8.2
			351 Tabulation. Contents of	
			carbon and hydrogen of	
Glass			samples of purified rubber,	
Negatives			gutta-percha and balata.	
- Box 211			(I.R.I. Trans., 1929, 5, 75,	
to 376	RUBB/351	c.1900	Table I.)	8.2x8.2
20 370	10000,001	0.1900	352 Tabulation. Heats of	0.240.2
Glass			combustion of purified	
Negatives			rubber, gutta-percha and	
- Box 211				
		- 1000	balata. (I.R.I. Trans.,	0 0 0 0
to 376	RUBB/352	c.1900	1929, <u>5</u> , 76, Table II.)	8.2x8.2
			354 Tabulation. Heats of	
Glass			combustion for masticated	
Negatives			rubber and rubber exposed to	
- Box 211			sunlight.(I.R.I. Trans.,	
to 376	RUBB/354	c.1900	1929, <u>5</u> , 80, Table III.)	8.2x8.2
			357 Rubber surgical	
			appliances used by Dr	
			Gabriel. ("Manuel du	
Glass			fabricant d'objects en	
Negatives			caoutchouc, gutta- percha et	
- Box 211			gomme factice", 1855, Plate	
to 376	RUBB/357	c.1900	2)	8.2x10.8
Glass				
Negatives			358 Hot-water bottle	
- Box 211			manufacture. Mould. Close up	
to 376	RUBB/358	c.1900	photograph	8.2x10.8
Glass	1000,000	C.1900	359 Hot-water bottle	· · · · · · · · · · · · · · · · · · ·
Negatives			manufacture. Uncured rubber	
- Box 211			in place in the mould. Close	
	ר / סבוזם / א	a 1000	_	9 2+10 0
to 376	RUBB/359	c.1900	up photograph 360 Hot-water bottle	8.2x10.8
Glass				
Negatives			manufacture. Mould ready for	
- Box 211		1	the press. Close up	0 0 1 0 0
to 376	RUBB/360	c.1900	photograph	8.2x10.8
			361 Hot-water bottle	
Glass			manufacture. Mould in the	
Negatives			press.(Salford) Limited	
- Box 211			Engineers. Close up	
to 376	RUBB/361	c.1900	photograph	8.2x10.8

Glass			362 Hot-water bottle	
Negatives			manufacture. Opened mould	
- Box 211			with vulcanised bottle in	
to 376	RUBB/362	c.1900	situ. Close up photograph	8.2x10.8
Glass			363 Hot-water bottle	
Negatives			manufacture. Stripping	
- Box 211			vulcanised bottle from the	
to 376	RUBB/363	c.1900	ore. Close up photograph	8.2x10.8
Glass	ROBD/303	C.1900		0.210.0
Negatives			365 Automatic round-block	
- Box 211	(cutting machine. Close up	
to 376	RUBB/365	c.1900	photograph	8.2x8.2
Glass			366 Machine for cold-	
Negatives			vulcanising proofed fabric;	
- Box 211			lead covered with iron	
to 376	RUBB/366	c.1900	frameworks. Advertisement.	8.2x8.2
			367 Manufacture of rubber	
			gloves by dipping (glove-	
			forms in position for	
			dipping). Dipping room and	
			process. (I.R.W., 1921, <u>64</u> ,	
Glass			719, Fig.7. The forms are	
Negatives			shown in position for	
- Box 211			dipping, and inverted for	
to 376	RUBB/367	c.1900	drying).	8.2x8.2
			368 Battery of dipping	
			machines with solvent	
			recovery installation. The	
			solution tank is big enough	
Glass			to suffice for 4 to 6	
Negatives			machines. (Schrim & Co.)	
- Box 211	10.00		(I.R.J., 1926, <u>71</u> , 720,	
to 376	RUBB/368	c.1900	Fig.3)	8.2x8.2
Glass			369 Dipping apparatus for	
Negatives			cold vulcanisation (Fig.7).	
- Box 211			(Schrim & Co.). (I.R.J.,	
to 376	RUBB/369	c.1900	1926, 71, 780, Fig.7)	8.2x8.2
			370 Diagram of detailed	
			connections for resistance	
Glass			measurement of hard rubber,	
Negatives			soft rubber and other high	
- Box 211		1000	grade insulation (I.R.I.	
to 376	RUBB/370	c.1900	Trans., 1930, 6, 92, Fig.4)	8.2x8.2
			371 Graph of resistance	
			plotted against time after	
			application of potential.	
Glass			Comparison of mercury and	
Negatives			aquadag electrodes in	
- Box 211			measuring resistance of hard	
to 376	RUBB/371	c.1900	rubber. (I.R.I. Trans.,	8.2x8.2
				U. 2AU. 2

			1930, 6, 86, Fig.1)	
			1930, <u>0,</u> 00, FIG.I)	
			372 Graph of effect of water	
			in aquadag on volume	
			resistivity determination of	
			soft rubber. (I.R.I. Trans.,	
Glass				
			1930, <u>6.</u> 90, Fig.3. Apparent	
Negatives			volume resistivity is	
- Box 211		1.0.0.0	plotted against time after	
to 376	RUBB/372	c.1900	application of potential).	8.2x8.2
			373 Graph of resistance	
			plotted against time after	
			application of potential.	
			Effect of water in aquadag	
			on surface resistivity	
			determination in hard	
			rubber. (I.R.I. Trans.,	
			1930, 6, 88, Fig. 2. Curves	
			are given showing change of	
Glass			resistance with time after	
Negatives			application of potential,	
- Box 211			and the influence of	
to 376	RUBB/373	c.1900	applying aquadag.)	8.2x8.2
20 370	ICODD/ 575	0.1900	374 Sectional diagram	0.240.2
Glass			illustrating principle of	
Negatives			R.A.B.R.M. hardness tester.	
- Box 211			(I.R.I. Trans., 1930, 6, 66,	
		~ 1000		0 00 0
to 376	RUBB/374	c.1900	Fig.2)	8.2x8.2
			375 R.A.B.R.M. Hardness	
Glass			tester in use with rubber	
Negatives			discs as sample. (I.R.I.	
- Box 211			Trans., 1930, <u>6,</u> facing p.	
to 376	RUBB/375	c.1900	68, Fig.3)	8.2x10.8
			376 R.A.B.R.M. Hardness	
Glass			tester in use on rubber-	
Negatives			covered roll (I.R.I. Trans.,	
- Box 211			1930, <u>6</u> , facing p. 68, Fig.	
to 376	RUBB/376	c.1900	4)	8.2x10.8
			377 Sectional diagram	
Glass			illustrating principle of	
Negatives			R.A.B.R.M. thickness gauge.	
- Box 377			(I.R.I. Trans., 1930, 6, 75,	
to 570	RUBB/377	c.1900	Fig. 7)	8.2x8.2
Glass			378 R.A.B.R.M. Thickness	
Negatives			gauge ready for use. (I.R.I.	
- Box 377			Trans., 1930, 6, facing p.	
to 570	RUBB/378	c.1900	75, Fig. 5)	8.2x10.8
0 570	010/010	C.1900	/J/ 119. J/	U. ZAIU. 0

			379 R.A.B.R.M. Thickness	
Glass			gauge in use, measuring a	
Negatives			Schopper ring. (I. R. I.	
- Box 377			Trans., 1930, 6, facing	
to 570	RUBB/379	c.1900	p.75, Fig. 6)	8.2x10.8
			380 Graph of indentation in	
			mm/100 plotted against load	
			in gr. Relation between load	
			and indentation in hardness	
Glass				
			testing of vulcanised rubber	
Negatives			using the R.A.B.R.M.	
- Box 377			instrument. (I.R.I. Trans.,	
to 570	RUBB/380	c.1900	1930, <u>6, </u> 65, Fig. 1)	8.2x8.2
Glass				
Negatives			382 Portrait of P.	
- Box 377			Schidrowitz. Close up	
to 570	RUBB/382	c.1900	photograph	8.2x8.2
Glass				
Negatives				
- Box 377			383 Portrait of S.S.	
to 570	RUBB/383	c.1900	Pickles. Close up photograph	8 2 - 8 2
Glass	KODD/ JOJ	C.1900	rickies. Close up photograph	0.240.2
Negatives				
- Box 377	(384 Portrait of H.P.	
to 570	RUBB/384	c.1900	Stevens. Close up photograph	8.2x8.2
Glass				
Negatives				
- Box 377			385 Portrait of W.B.	
to 570	RUBB/385	c.1900	Wiegand. Close up photograph	8.2x8.2
Glass				
Negatives				
- Box 377			386 Portrait of C.D.	
to 570	RUBB/386	c.1900	Harries. Close up photograph	8 2×8 2
Glass	1.02227.000	C.1200		J. 240.2
Negatives				
2				
- Box 377		- 1000	387 Portrait of B.D. W.Luff.	
to 570	RUBB/387	c.1900	Close up photograph	8.2x8.2
Glass				
Negatives				
- Box 377			388 Portrait of F.A. Hauser.	
to 570	RUBB/388	c.1900	Close up photograph	8.2x8.2
Glass				
Negatives				
- Box 377			389 Portrait of R.W. Lunn.	
to 570	RUBB/389	c.1900	Close up photograph	8.2x8.2
Glass				
Negatives				
- Box 377			390 Portrait of O. de Vries.	
		~ 1000		0 00 0
to 570	RUBB/390	c.1900	Close up photograph	8.2x8.2

	1			
Glass				
Negatives				
- Box 377			391 Portrait of P.B. Cow.	
to 570	RUBB/391	c.1900	Close up photograph	8.2x8.2
Glass				
Negatives				
- Box 377			392 Portrait of F. Kaye.	
to 570	RUBB/392	c.1900	Close up photograph	8.2x8.2
Glass	1.022, 052	0.1000		
Negatives				
- Box 377			393 Portrait of R. Pummerer.	
		- 1000		0 0 0 0
to 570	RUBB/393	c.1900	Close up photograph	8.2x8.2
			394 Graph. Effect of	
			protective coatings on	
			ageing of vulcanised	
			rubber.(I.R.I.Trans., 1931,	
			<u>7,</u> 106, Fig.1. Curves are	
Glass			given for change of tensile	
Negatives			strength of vulcanised	
- Box 377			rubber protected by various	
to 570	RUBB/394	c.1900	preservative paints).	8.2x8.2
	- ,		395 Tabulation. Tensile	
			strength of tubing stored	
			for 15 months in various	
			fluids. (I.R.I. Trans.,	
			1931, <u>7</u> , 97, Table I. The	
			fluids investigated are air	
			alone, air and amonia, 1%	
			soda solution, 2% boric acid	
Glass			solution, 70 % alcohol, lime	
Negatives			water, 10% glycerin	
- Box 377			solution, distilled water,	
to 570	RUBB/395	c.1900	air and petroleum vapour.)	8.2x8.2
			396 Tabulation. Effect of	
			preservative paints in	
			natural ageing of vulcanised	
			rubber. (I.R.I. Trans.,	
			1931, <u>7,</u> 107, Table II.	
			Figures are given for	
			breaking load and elongation	
			of a tire mix and a red tube	
Glass			mix, for the fresh rubbers	
Negatives			and after storage in England	
- Box 377			and India for 3 and 12	
to 570	RUBB/396	c.1900	months.)	8.2x8.2

			397 Graph. Influence of rate	
			of stretching on load at	
			300% elongation in tensile	
			testing of vulcanised	
			rubber. (Data from R. Dorey:	
			Influence of rate of	
			stretching in tensile	
			testing, I.R.I. Trans.,	
			1931, 7, 158. Curves are	
			given relating the above	
			property to rate of	
			stretching in rubbers	
			-	
			containing (a) magnesium	
Glass			carbonate, (b) litharge, (c)	
Negatives			clay and (d) carbon black,	
- Box 377		1.0.0.0	all vulcanised for four	
to 570	RUBB/397	c.1900	different times.)	8.2x8.2
			398 Graph. Influence of rate	
			of stretching on load at	
			300% elongation in tensile	
			testing of vulcanised	
			rubber. (See note for	
			RUBB/397. Curves are given	
			relating the above property	
			to rate of stretching in	
			rubbers containing (a) zinc	
			oxide, (b) antimony	
			sulphide, (c) barytes, and	
Glass			(d) whiting, and for the	
Negatives			95:5 rubber- sulphur parent	
- Box 377			mix, all vulcanised for four	
to 570	RUBB/398	c.1900	different times.)	8.2x8.2
	ICEE/ 000	0.1900	399 Graph. Influence of rate	0.240.2
			of stretching on tensile	
			strength in tensile testing	
			of vulcanised rubber. (See	
			note for RUBB/397. Curves	
			are given relating the above	
			property to rate of	
			stretching in rubbers	
			containing (a) magnesium	
Glass			carbonate, (b) litharge, (c)	
Negatives			clay and (d) carbon black,	
- Box 377		1.000	all vulcanised for four	
to 570	RUBB/399	c.1900	different times.)	8.2x8.2

			400 Graph. Influence of rate	
			of stretching on tensile	
			strength in tensile testing	
			of vulcanised rubber. (See	
			note for RUBB/397. Curves	
			are given relating the above	
			property to rate of	
			stretching in rubbers	
			containing (a) zinc oxide,	
			(b) antimony sulphide, (c)	
Glass			barytes, (d) whiting, and	
Negatives			for the 95:5 rubber-sulphur	
- Box 377			parent mix, all vulcanised	
to 570	RUBB/400	c.1900	for for different times.)	8.2x8.2
	,		401 Graph. Influence of rate	
			of stretching on %	
			5	
			elongation at 0.5% kg/mm2,	
			as % of mean, in tensile	
			testing of vulcanised	
			rubber. (I.R.I. Trans.,	
			1931, 7, 166, Fig.4. Curves	
			are given relating the above	
			property to rate of	
			stretching in rubbers	
			containing (a) magnesium	
			carbonate, (b) carbon black,	
			(c) clay, (d) litharge, (e)	
			antimony sulphide, (f) zinc	
			oxide, (g) whiting, (h)	
Glass			barytes, and for the 95:5	
Negatives			rubber-sulphur parent mix,	
- Box 377			all vulcanised for four	
to 570	RUBB/401	c.1900	different times.)	8.2x8.2
			402 Graph. Influence of rate	
			of stretching on tensile	
			strength, as % of mean, in	
			tensile testing of	
			5	
			vulcanised rubber. (I.R.I.	
			Trans., 1931, <u>7</u> , 164, Fig.2.	
			Curves are given relating	
			the above property to rate	
			of stretching in rubber	
			containing (a) magnesium	
			carbonate, (b) carbon black,	
			(c) clay, (d) litharge, (e)	
			antimony sulphide, (f) zinc	
			oxide, (g) whiting, (h)	
Glass			barytes, and for the 95:5	
Negatives			rubber-sulphur parent mix,	
- Box 377			all vulcanised for four	
to 570	RUBB/402	c.1900	different times.)	8.2x8.2
0 010	TOPL/TOT	C.1000		0.240.2

Glass				
Negatives				
- Box 377			403 Rubber trees in Brazil.	
to 570	RUBB/403	c.1900	Mid -shot photograph	8.2x8.2
Glass				
Negatives			404 Tapping rubber tree.	
- Box 377			State of Amazonia. Mid -shot	
to 570	RUBB/404	c.1900	photograph	8.2x8.2
Glass				
Negatives			406 Rubber for export in	
- Box 377			interior of Amazonia. Mid -	
to 570	RUBB/406	c.1900	shot photograph	8.2x8.2
	10000, 100	0.1900	408 Rubber reclaiming.	0.2110.2
Glass			General view of works of	
Negatives			Northwestern Rubber Co.,	
- Box 377			Litherland. Mid -shot	
to 570	RUBB/408	c.1900	photograph	8.2x8.2
Glass	1.022, 100		409 Rubber reclaiming. Old	5.220.2
Negatives			motor outer covers awaiting	
- Box 377			treatment. Mid- shot	
to 570	RUBB/409	c.1900	photograph	8.2x10.8
Glass	11022, 103	0.1900	410 Rubber reclaiming. Old	0.21110.0
Negatives			inner tubes awaiting	
- Box 377			treatment. Mid -shot	
to 570	RUBB/410	c.1900	photograph	8.2x10.8
Glass	11022, 110	0.1000	F110 00 91 0F11	
Negatives			411 Rubber reclaiming.	
- Box 377			Grinding mills. Mid -shot	
to 570	RUBB/411	c.1920	photograph	8.2x8.2
Glass				
Negatives			412 Rubber reclaiming.	
- Box 377			Sheeting mills. Mid -shot	
to 570	RUBB/412	c.1920	photograph	8.2x8.2
Glass				
Negatives			413 Rubber reclaiming.	
- Box 377			Finished product. Mid -shot	
to 570	RUBB/413	c.1920	photograph	8.2x8.2
Glass				
Negatives			414 Sir H. Wickham. Memorial	
- Box 377			bust. (Bull. R.G.A., 1931,	
to 570	RUBB/414	c.1920	13, 547.)	8.2x8.2
			415 Sir H. Wickham standing	
			beside the oldest rubber	
Glass			tree in Ceylon, which	
Negatives			produced 2401b. dry rubber	
- Box 377			in 1909-11, a world's	
to 570	RUBB/415	c.1920	record. Mid -shot photograph	8.2x8.2
_				
Glass			416 Diagram of apparatus for	
Negatives			measuring water absorption	
- Box 377	RUBB/416	c.1920	by rubber from an atmosphere	8.2x8.2

	Γ			[]
to 570			of constant humidity. (Data	
			from H. A. Daynes:	
			Measurement of water	
			absorption by rubber,	
			1 1 1	
			I.R.J., 1932, <u>84</u> , 376.)	
			417 Graph. Water absorption	
			by raw rubber at various	
			humidities. (See negative	
			RUBB/416. Curves show the	
			water-absorption by smoked	
~ 1			sheet, crepe, Para and	
Glass			Hopkinson sprayed latex	
Negatives			rubbers in atmospheres of	
- Box 377			various relative	
to 570	RUBB/417	c.1920	humidities.)	8.2x8.2
	- ,		418 Graph. Water absorption	
			by smoked sheet at various	
			humidities. (See negative	
			RUBB/416. Time-water	
			absorption curves are given	
Glass			for smoked sheet in	
Negatives			atmospheres of 75.2%, 84.8%	
- Box 377			and 97.3% relative	
		1000		0 0 0 0
to 570	RUBB/418	c.1920	humidities.)	8.2x8.2
			419 Tabulation. Water	
			absorption by typical raw	
			and vulcanised rubbers at	
			various humidities. (See	
			negative RUBB/416. Figures	
			are given for smoked sheet,	
			crepe, Para, and Hopkinson	
			sprayed latex rubbers, for	
			vulcanised latex sheet, a	
			shoe stock containing acid	
			reclaim, a tire stock	
			containing alkali reclaim,	
Class				
Glass			and for a high and a low	
Negatives			grade ebonite at 75.2%,	
- Box 377			84.8% and 97.3% relative	
to 570	RUBB/419	c.1920	humidity.)	8.2x8.2
			420 Graph. Water absorption	
			by vulcanised rubbers at	
			various humidities. (See	
			negative RUBB/416. Water	
			absorption is plotted	
			against relative humidity	
			for vulcanised latex sheet,	
Glass			a shoe stock containing acid	
Negatives			reclaim, a tire stock	
- Box 377				
$I = R \cap \nabla + I / I$	1	1	containing alkali reclaim,	
to 570	RUBB/420	c.1920	and a high and a low grade	8.2x8.2

			ebonite.)	
Glass				
Negatives			421 Masticator in use today	
- Box 377			(circa 1920). Mid- shot	
to 570	RUBB/421	c.1920	photograph	8.2x8.2
	11022, 122	0.1010	422 Healey-Shaw cycle-tyre-	
Glass			building machine. Francis	
Negatives			Shaw & Co. Ltd. Bradford,	
- Box 377			Manchester. Mid -shot	
to 570	RUBB/422	c.1920	photograph	8.2x8.2
10 570	RODD/422	C.1920	423 Thropp tyre building	0.220.2
			machine for low pressure	
			-	
Glass			tyres, showing steel stitcher and rubber	
Negatives			stitcher. Francis Shaw & Co.	
– Box 377				
		~ 1020	Ltd. Bradford, Manchester.	0 00 0
to 570	RUBB/423	c.1920	Mid -shot photograph	8.2x8.2
Glass				
Negatives			424 Sykes double helical	
- Box 377		1000	gear cutter. Close up	
to 570	RUBB/424	c.1920	photograph	8.2x8.2
Glass				
Negatives			425 Sykes double helical	
- Box 377		1000	gear cutter. Mid -shot	
to 570	RUBB/425	c.1920	photograph	8.2x8.2
Glass				
Negatives			426 Bud grafting. Preparing	
- Box 377		1000	the stock. Mid -shot	
to 570	RUBB/426	c.1920	photograph	8.2x8.2
Glass				
Negatives			427 Bud grafting. Preparing	
- Box 377		1.000	the bud slip. Close up	
to 570	RUBB/427	c.1920	photograph	8.2x8.2
Glass				
Negatives			428 Bud grafting. Trimming	
- Box 377		1.0.0.0	the bud slip. Close up	
to 570	RUBB/428	c.1920	photograph	8.2x8.2
Glass				
Negatives			429 Bud grafting. Stripping	
- Box 377	· · ·		the bud-patch. Close up	
to 570	RUBB/429	c.1920	photograph	8.2x8.2
Glass				
Negatives			430 Bud grafting. Trimming	
- Box 377			the bud-patch. Close up	
to 570	RUBB/430	c.1920	photograph	8.2x8.2

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Glass				
Negatives			431 Bud grafting. Inserting	
- Box 377			the bud-patch. Mid -shot	
to 570	RUBB/431	c.1920	photograph	8.2x8.2
Glass				
Negatives			432 Bud grafting. Binding	
- Box 377			the budding. I. Mid -shot	
to 570	RUBB/432	c.1920	photograph	8.2x8.2
Glass				
Negatives			433 Bud grafting. Binding	
- Box 377			the budding. II. Mid -shot	
to 570	RUBB/433	c.1920	photograph	8.2x8.2
	RUDD/433	C.1920		0.280.2
Glass			124 Deal and ft in a Diadian	
Negatives			434 Bud grafting. Binding	
- Box 377		1.0.0.0	the budding. III. Mid -shot	
to 570	RUBB/434	c.1920	photograph	8.2x8.2
Glass				
Negatives			435 Bud grafting. Protection	
- Box 377			of the completed budding; I.	
to 570	RUBB/435	c.1920	Close up photograph	8.2x8.2
Glass				
Negatives			436 Bud grafting. Protection	
- Box 377			of the completed budding;	
to 570	RUBB/436	c.1920	II. Close up photograph	8.2x8.2
Glass				
Negatives			437 Bud grafting. Opening	
- Box 377			the budding. I. Close up	
to 570	RUBB/437	c.1920	photograph	8.2x8.2
Glass	10000/10/	0.1920		0.240.2
Negatives			438 Bud grafting. Opening	
- Box 377			the budding. II. Close up	
		~ 1020		0 00 0
to 570	RUBB/438	c.1920	photograph	8.2x8.2
Glass				
Negatives				
- Box 377		1.000	439 Bud grafting. Ringing.	
to 570	RUBB/439	c.1920	Close up photograph	8.2x8.2
Glass				
Negatives			440 Bud grafting. Cutting	
- Box 377			back the stock. Close up	
to 570	RUBB/440	c.1920	photograph	8.2x8.2
Glass				
Negatives			441 Receiving latex at	
- Box 377			factory. Mid -shot	
to 570	RUBB/441	c.1920	photograph	8.2x10.8
Glass			442 Rubber seedlings planted	
Negatives			in multiplication beds for	
- Box 377			budding. Mid -shot	
to 570	RUBB/442	c.1920	photograph	8.2x8.2
	TODD/ 447	C.1920	Photograph	0.240.2

Glass			443 Rubber estate showing	
Negatives			silt pits and bunds for	
- Box 377			prevention of soil erosion.	
to 570	RUBB/443	c.1920	Mid -shot photograph	8.2x8.2
			444 Young rubber trees on	
Glass			hilly land, showing terraces	
Negatives			and cover crops to prevent	
- Box 377			soil erosion. Mid -shot	
		1000		
to 570	RUBB/444	c.1920	photograph	8.2x8.2
Glass				
Negatives			445 Mature rubber trees on	
- Box 377			flat land. Mid -shot	
to 570	RUBB/445	c.1920	photograph	8.2x8.2
Glass				
Negatives			446 Tamil women bringing	
- Box 377			latex from field to factory.	
		a 1000	-	0 20 0
to 570	RUBB/446	c.1920	Mid -shot photograph	8.2x8.2
Glass				
Negatives			447 Rubber Research	
- Box 377			Institute of Malaya. Mid -	
to 570	RUBB/447	c.1920	shot photograph	8.2x8.2
Glass				
Negatives			448 Pollinating flowers of	
- Box 377			rubber trees. Mid -shot	
to 570	RUBB/448	c.1920		8.2x8.2
	RUBB/440	C.1920	photograph	0.280.2
Glass			449 Rubber tree	
Negatives			inflorescence showing male	
- Box 377			and female flowers. Mid -	
to 570	RUBB/449	c.1920	shot photograph	8.2x8.2
Glass			450 Rubber tree	
Negatives			inflorescence showing female	
- Box 377			flowers at tips of branches.	
to 570	RUBB/450	c.1920	Mid -shot photograph	8.2x8.2
Glass		C.1720	451 Young shoot or tip of	J. 240.2
Negatives			branch showing inflorescence	
- Box 377	·		of rubber trees. Close up	
to 570	RUBB/451	c.1920	photograph	8.2x8.2
Glass				
Negatives				
- Box 377			452 Young budding of rubber	
to 570	RUBB/452	c.1920	plant. Close up photograph	8.2x8.2
Glass	- ,			
Negatives			453 Young budding of rubber	
-			2 2	
- Box 377		1000	plant showing final pruning	
to 570	RUBB/453	c.1920	of stock.	8.2x8.2
Glass			454 Section showing union of	
Negatives			stock and scion and diseased	
- Box 377			area occluded by wound gum.	
to 570	RUBB/454	c.1920	Close up photograph	8.2x8.2
				-

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Glass				
Negatives			455 Young budded tree (3-4	
- Box 377			years old), Pilmoor clone	
to 570	RUBB/455	c.1920	A44. Mid -shot photograph	8.2x8.2
Glass				
Negatives			456 One-year-old budded	
- Box 377			rubber plant. Mid -shot	
to 570	RUBB/456	c.1920	photograph	8.2x8.2
Glass			457 Young budded rubber	
Negatives			plants intermixed with	
- Box 377			ordinary seedling plants.	
to 570	RUBB/457	c.1920	Mid -shot photograph	8.2x8.2
Glass	_ , _		458 Longitudinal section of	
Negatives			cortex of rubber tree	
- Box 377			showing latex vessels	
to 570	RUBB/458	c.1920	(black).	8.2x8.2
Glass	1000/100	C • 1 720		0.240.2
Negatives				
- Box 377			459 Longitudinal section of	
	RUBB/459	~ 1020	-	8.2x8.2
to 570	RUBB/459	c.1920	stem tip of rubber plant.	0.280.2
Glass				
Negatives			460 Mouldy rot disease	
- Box 377			(sphaeronemia fimbriatum)	
to 570	RUBB/460	c.1920	fructifications.	8.2x8.2
Glass				
Negatives			461 Mouldy rot disease	
- Box 377			(sphaeronema fimbriatum)	
to 570	RUBB/461	c.1920	fructifications.	8.2x8.2
			462 Sphaerostilbe repens	
			(fungus disease) on bark of	
			rubber tree with pad of	
			coagulated latex attached.	
Glass			(The pad of coagulum is the	
Negatives			white portion. The bark	
- Box 377			(dark portion) shows	
to 570	RUBB/462	c.1920	mycelium of fungus (white).	8.2x8.2
Glass				
Negatives			463 Sphaerostilbe repens	
- Box 377			(fungus disease) on bark of	
to 570	RUBB/463	c.1920	rubber tree.	8.2x8.2
Glass		C.1720		J. 240.2
Negatives			464 Diplodia (Pycnidium) on	
- Box 377			bark of rubber tree (fungus	
		~ 1000	-	0 20 2
to 570	RUBB/464	c.1920	disease).	8.2x8.2
Glass			465 Diplodia mycelium	
Negatives			(fungus disease) in stem of	
- Box 377		1.000	rubber tree (longitudinal	
to 570	RUBB/465	c.1920	section).	8.2x8.2

a 1				
Glass			466 Fomes pseudoferreus	
Negatives			(fungus disease), infected	
- Box 377			wood showing mycelium in	
to 570	RUBB/466	c.1920	vessels.	8.2x8.2
			467 Fomes pseudoferreus.	
Glass			Transverse section wood of	
Negatives			rubber plant showing	
- Box 377			breakdown of wood fibres and	
to 570	RUBB/467	c.1920	medullary rays.	8.2x8.2
Glass				
Negatives			468 Fomes pseudoferreus.	
- Box 377			Transverse section of	
to 570	RUBB/468	c.1920	infected root.	8.2x8.2
Glass	10000, 100	0.1920	469 Fomes pseudoferreus.	0.210.2
Negatives			Transverse section of root	
- Box 377			showing fungus and cork	
to 570	RUBB/469	c.1920	proliferation.	8.2x8.2
Glass	1001403	C.IJ20	470 Root disease of rubber	0.240.2
Negatives			trees showing danger of root	
- Box 377				
		- 1000	contact with infected jungle	0 0 0 0
to 570	RUBB/470	c.1920	stumps.	8.2x8.2
Glass				
Negatives			471 Root disease on rubber	
- Box 377			trees, showing danger of	
to 570	RUBB/471	c.1920	spread by root contact.	8.2x8.2
Glass			472 Fomes lignosus	
Negatives			fructifications (root	
- Box 377			disease) on felled rubber	
to 570	RUBB/472	c.1920	tree stump.	8.2x8.2
Glass				
Negatives				
- Box 377			473 Mycelium of fomes	
to 570	RUBB/473	c.1920	lignosus on jungle stump.	8.2x8.2
Glass				
Negatives			474 Mycelium of fomes	
- Box 377			lignosus in artificial	
to 570	RUBB/474	c.1920	culture.	8.2x8.2
	- ,		475 Fomes pseudoferreus	–
Glass			showing effect on roots of	
Negatives			rubber trees. Adventitious	
- Box 377			root formation or	
to 570	RUBB/475	c.1920	proliferation.	8.2x8.2
	1/1/1/1/	C.IJ20	476 Fomes pseudoferreus	0.240.2
			-	
Class			showing effect on roots of	
Glass			rubber trees. Adventitious	
Negatives			root formation or	
- Box 377		1	proliferation. Mid -shot	
to 570	RUBB/476	c.1920	photograph	8.2x8.2

Glass				
Negatives				
- Box 377			477 Fructification of fomes	
to 570	RUBB/477	c.1920	pseudoferreus.	8.2x8.2
Glass		0.1920		0.2110.2
Negatives			478 White thread blight	
- Box 377			fungus on branches of rubber	
to 570	RUBB/478	c.1920	tree.	8.2x8.2
Glass	KOBB/470	C.1920		0.240.2
Negatives			470 White thread blight	
- Box 377			479 White thread blight	
		~ 1020	fungus on branches of rubber	0 00 0
to 570	RUBB/479	c.1920	tree and leaves.	8.2x8.2
Glass				
Negatives			480 White thread blight	
- Box 377	(fungus on leaf of rubber	
to 570	RUBB/480	c.1920	tree.	8.2x8.2
Glass			481 Sulphur-spraying-machine	
Negatives			for treating Oidium Heveae	
- Box 377			(mildew disease). Mid -shot	
to 570	RUBB/481	c.1920	photograph	8.2x8.2
Glass				
Negatives			482 Fungus (Hypocrella sp.)	
- Box 377			growing on scale insects on	
to 570	RUBB/482	c.1920	rubber tree.	8.2x8.2
Glass				
Negatives			483 Chinese labourers	
- Box 377			straining latex. Mid -shot	
to 570	RUBB/483	c.1920	photograph	8.2x8.2
Glass				
Negatives				
- Box 377			484 Latex in pails. Close up	
to 570	RUBB/484	c.1920	photograph	8.2x8.2
Glass				
Negatives				
- Box 377			485 Weighing latex. Mid -	
to 570	RUBB/485	c.1920	shot photograph	8.2x8.2
Glass	100000, 100		P	
Negatives			486 Tamil woman collecting	
- Box 377			latex and scrap rubber. Mid	
to 570	RUBB/486	c.1920	-shot photograph	8.2x8.2
	1005/400	C.1920	487 Showing method of adding	0.240.2
Glass			sodium sulphite solution to	
			_	
Negatives			latex in field to prevent or	
- Box 377		~ 1000	reduce premature	0 00 0
to 570	RUBB/487	c.1920	coagulation.	8.2x8.2
			488 Dirty latex collecting	
Glass			pails which cause	
Negatives			fermentation of latex and	
- Box 377	//		premature coagulation. Close	
to 570	RUBB/488	c.1920	up photograph	8.2x8.2

Glass			489 Proposed new type of	
Negatives			latex strainer for downward	
- Box 377			and upward sieving. Close up	
to 570	RUBB/489	c.1920	photograph	8.2x8.2
Glass			490 Transferring latex from	
Negatives			collecting pails to	
- Box 377			coagulating tanks. Mid -shot	
to 570	RUBB/490	c.1920	photograph	8.2x8.2
	RUDD/490	C.1920		0.280.2
Glass			491 Latex settling and	
Negatives			bulking tanks and	
- Box 377			coagulating tanks. Mid -shot	
to 570	RUBB/491	c.1920	photograph	8.2x8.2
Glass				
Negatives			492 Straining latex into	
- Box 377			coagulating tanks. Mid -shot	
to 570	RUBB/492	c.1920	photograph	8.2x8.2
Glass			493 Placing partitions in	
Negatives			coagulating tanks (after	
- Box 377			addition of coagulant). Mid	
to 570	RUBB/493	c.1920	-shot photograph	8.2x8.2
	RUDD/495	C.1920		0.280.2
Glass			494 Latex coagulating tanks	
Negatives			showing partitions removed	
- Box 377			and suspended on frames. Mid	
to 570	RUBB/494	c.1920	-shot photograph	8.2x8.2
Glass			497 Determining dry-rubber-	
Negatives			content of latex with an	
- Box 377			hydrometer graduated in lb.	
to 570	RUBB/497	c.1920	and oz. Close up photograph	8.2x8.2
			498 Cement bulking and	
			settling tanks (lined with	
Glass			glazed tiles showing	
Negatives			transfer and straining of	
-			_	
- Box 377		- 1000	latex into coagulating	
to 570	RUBB/498	c.1920	tanks). Mid -shot photograph	8.2x8.2
			499 Amount of sand, etc.	
Glass			settled from latex, with and	
Negatives			without addition of sodium	
- Box 377			sulphite to reduce viscosity	
to 570	RUBB/499	c.1920	of latex.	8.2x8.2
Glass			500 Diagram of latex	
Negatives			settling tank showing	
- Box 377			sloping bottom to collect	
to 570	RUBB/500	c.1920	sand.	8.2x8.2
	1.000,000	C.1720	501 Sand and bark particles	· · 2 · · 2
			_	
Class			passing through holes in 60	
Glass			mesh sieve. Enlargement	
Negatives			showing sand grains which	
- Box 377	_		will pass through 50, 60 and	
to 570	RUBB/501	c.1920	100 mesh sieves.	8.2x8.2

~1				
Glass				
Negatives			502 Coagulum being machined	
- Box 377			into "sheet" form. Mid -shot	
to 570	RUBB/502	c.1920	photograph	8.2x8.2
Glass				
Negatives			503 Coagulum being machined	
- Box 377			into "sheet" form. Close up	
to 570	RUBB/503	c.1920	photograph -	8.2x8.2
			504 Removing coagulum from	
Glass			coagulating tanks	
Negatives			preparatory to machining to	
- Box 377			sheet form. Mid -shot	
to 570	RUBB/504	c.1920	photograph	8.2x8.2
0 370	ROBD/ JOH	C.1 <i>5</i> 20	505 Placing coagulum on	0.240.2
			small truck for conveyance	
C1 -			to sheeting machines,	
Glass			showing deformation of	
Negatives			coagulum due to bad	
- Box 377	/		handling. Mid -shot	
to 570	RUBB/505	c.1920	photograph	8.2x8.2
Glass				
Negatives			506 Showing torn coagulum,	
- Box 377			due to careless handling.	
to 570	RUBB/506	c.1920	Mid -shot photograph	8.2x8.2
Glass			507 Removing coagulum from	
Negatives			coagulating tanks; cleaning	
- Box 377			partition of tanks. Mid -	
to 570	RUBB/507	c.1920	shot photograph	8.2x8.2
Glass				
Negatives			508 Showing preliminary	
- Box 377			hand-rolling of coagulum.	
to 570	RUBB/508	c.1920	Mid -shot photograph	8.2x8.2
	110227 000	0.1010	509 Washing coagulating	
Glass			tanks and partitions. (Note	
Negatives			type of partition with	
- Box 377			central dividing flange.)	
		~ 1020	5 5	0 20 2
to 570	RUBB/509	c.1920	Mid -shot photograph	8.2x8.2
			510 Chute with right-angle	
Glass			bend to convey coagulum from	
Negatives			coagulating tanks to	
- Box 377			sheeting machines. Mid -shot	
to 570	RUBB/510	c.1920	photograph	8.2x8.2
Glass				
Negatives			511 Machining coagulum to	
- Box 377			sheet form. Mid -shot	
to 570	RUBB/511	c.1920	photograph	8.2x8.2
Glass			512 Factory showing chute	
Negatives			for conveying coagulum to	
- Box 377			first sheeting machine and	
to 570	RUBB/512	c.1920	from first to second	8.2x8.2

			machine. Mid -shot	
			photograph	
Glass				
Negatives			513 General view of a	
- Box 377			sheeting factory. Mid -shot	
to 570	RUBB/513	c.1920	photograph	8.2x8.2
Glass				
Negatives			515 Deformation of coagulum	
- Box 377			due to bad manipulation. Mid	
to 570	RUBB/515	c.1920	-shot photograph	8.2x8.2
	110227 010	0.1920	516 Coagulating tanks in	0.2110.2
Glass			sheeting factory. (Note	
Negatives			battery of sheeting machines	
- Box 377			in line at further end). Mid	
to 570	RUBB/516	c.1920	shot photograph	8.2x8.2
Glass	10000/010	C.1720		0.240.2
Negatives			517 Chute to convey coagulum	
- Box 377			to sheeting machines. Mid -	
to 570	RUBB/517	c.1920	shot photograph	8.2x8.2
Glass	1, 10, 11, 10, 11, 11, 11, 11, 11, 11, 1	C.1920		0.240.2
Negatives			518 Chute to convey coagulum	
- Box 377			to sheeting machines. Close	
to 570	RUBB/518	c.1920	up photograph	8.2x8.2
Glass	RODD/ 510	0.1920		0.240.2
Negatives			519 Battery of sheeting	
- Box 377			machines in line. Mid -shot	
to 570	RUBB/519	c.1920	photograph	8.2x8.2
Glass	I(ODD/ S1)	0.1520		0.240.2
Negatives			520 Tanah Besih multiple	
- Box 377			roll sheeting machine. Mid -	
to 570	RUBB/520	c.1920	shot photograph	8.2x8.2
Glass	10000/020	C.1720		0.240.2
Negatives			521 Sheeting rolls in column	
- Box 377			driven by hand. Close up	
to 570	RUBB/521	c.1920	photograph	8.2x8.2
Glass	10000/021	C.1720	phocograph	0.240.2
Negatives			522 Sheeting rolls in column	
- Box 377			driven by hand. Mid -shot	
to 570	RUBB/522	c.1920	photograph	8.2x8.2
Glass			523 Sheeting machines in	
Negatives			cascade or column formation	
- Box 377			with conveyer belt to first	
to 570	RUBB/523	c.1920	machine. Near view.	8.2x8.2
Glass			524 Sheeting machines in	· · · · · · · · · · · · · · · · · · ·
Negatives			cascade or column formation	
- Box 377			with conveyer belt to first	
to 570	RUBB/524	c.1920	machine. General view.	8.2x8.2
20 0,0	,	3.1320		2.2.1.0.2

<u></u>			525 Sheeting machines in	
Glass			cascade or column formation	
Negatives			with conveyer belt to first	
- Box 377	/		machine. Mid -shot	
to 570	RUBB/525	c.1920	photograph.	8.2x8.2
Glass			526 Chute to first machine	
Negatives			(fore-worker) and thence to	
- Box 377			sheeting machines in line.	
to 570	RUBB/526	c.1920	Mid -shot photograph	8.2x8.2
Glass			527 Battery of light	
Negatives			sheeting machines in line	
- Box 377			(ordinary lay-out). Rear	
to 570	RUBB/527	c.1920	view showing driving shaft.	8.2x8.2
			528 Tanah Besih multiple	
Glass			roll machine in background	
Negatives			with marking roll machines	
- Box 377			in foreground. Mid -shot	
to 570	RUBB/528	c.1920	photograph	8.2x8.2
			529 Sheet-foreroller.	
			British patent N0.160166.	
			Tanah Besih machine with	
Glass			foreworker (preliminary	
Negatives			rolling machine for thick	
- Box 377			coagulum). Mid -shot	
to 570	RUBB/529	c.1920	photograph	8.2x8.2
			530 General plan of	
			elevation of the Tanah Besih	
Glass			sheetroller. Reineveld,	
Negatives			Holland. Tanah Besih	
- Box 377			multiple roll machine, plan	
to 570	RUBB/530	c.1920	and elevation.	8.2x8.2
			531 Sheeting rolls in column	
Glass			on table with separate	
Negatives			marking machine in	
- Box 377			foreground. Mid -shot	
to 570	RUBB/531	c.1920	photograph	8.2x8.2
			532 Sheeting machine in line	
Glass			showing foreworker and chute	
Negatives			or trough in front of	
- Box 377			machines to convey coagulum.	
to 570	RUBB/532	c.1920	Mid -shot photograph	8.2x8.2
Glass			533 Tanah Besih multiple	
Negatives			roll machine showing	
- Box 377			conveyer belt. Mid -shot	
to 570	RUBB/533	c.1920	photograph	8.2x8.2
Glass	1000/000	C.1720	phocograph	0.240.2
Negatives			534 Hoare multiple roll	
- Box 377			sheeting machine. Close up	
to 570	RUBB/534	c.1920	photograph	8.2x8.2
	NUDD/JJ4	C.1920	Γριοτογιαρι	0.280.2

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			535 General view of estate	
			factory with battery of	
Glass			light sheeting machines,	
Negatives			coagulating tanks and	
- Box 377	(<u> </u>		Shanghai jars for bulking	
to 570	RUBB/535	c.1920	latex. Mid -shot photograph	8.2x8.2
Glass			536 Battery of light	
Negatives			sheeting machines with heavy	
- Box 377			crepeing machines on left.	
to 570	RUBB/536	c.1920	Mid -shot photograph	8.2x8.2
Glass			537 Battery of crepeing	
Negatives			machines with lumps of	
- Box 377			coagulum in foreground. Mid	
to 570	RUBB/537	c.1920	-shot photograph	8.2x8.2
Glass			538 Sorting lower grade	
Negatives			(scrap) rubber before	
- Box 377			machining to crepe. Mid -	
to 570	RUBB/538	c.1920	shot photograph	8.2x8.2
			539 Crepeing machines. (Note	
Glass			dark lower grade crepe and	
Negatives			light pale crepe in front of	
- Box 377			machines). Mid -shot	
to 570	RUBB/539	c.1920	photograph	8.2x8.2
			541 Factory showing small	
Glass			washing or soaking tanks for	
Negatives			finished wet sheet and	
- Box 377			dripping racks. Mid -shot	
to 570	RUBB/541	c.1920	photograph	8.2x8.2
			542 Sheet hung to drip in	
Glass			open on lines. (This method	
Negatives			of dripping in full sunlight	
- Box 377			is not recommended.). Mid -	
to 570	RUBB/542	c.1920	shot photograph	8.2x8.2
Glass			543 Smoke and heat	
Negatives			distributor over furnace in	
- Box 377			smoke house. Mid -shot	
to 570	RUBB/543	c.1920	photograph	8.2x8.2
			544 Estate factory showing	
Glass			coagulating tanks, chute to	
Negatives			machines and finished wet	
- Box 377			sheet on draining racks. Mid	
to 570	RUBB/544	c.1920	-shot photograph	8.2x8.2
Glass				
Negatives				
- Box 377			545 Sheet hanging in smoke	
to 570	RUBB/545	c.1920	house. Close up photograph	8.2x8.2
Glass			546 Termograph: combined	
Negatives			graphs showing fluctuations	
- Box 377			in temperature at different	
to 570	RUBB/546	c.1920	positions from Monday to	8.2x8.2

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			Saturday in Smoke House.	
			Temperature chart in smoke	
			house.	
Glass				
Negatives			547 Exterior view of two-	
- Box 377			storey smoke house. Mid -	
	RUBB/547	c.1920	-	8.2x8.2
to 570	RUDD/J4/	C.1920	shot photograph	0.280.2
Glass			548 Tamil women sorting	
Negatives			smoked sheet and cutting out	
- Box 377		1000	defects. Mid -shot	
to 570	RUBB/548	c.1920	photograph	8.2x8.2
Glass				
Negatives			549 Tamil women sorting	
- Box 377			smoked sheet and cutting out	
to 570	RUBB/549	c.1920	defects. Close up photograph	8.2x8.2
Glass				
Negatives			550 Smoked sheet showing	
- Box 377			specks of dirt. Close up	
to 570	RUBB/550	c.1920	photograph	8.2x8.2
			551 Smoked sheet showing	
			white (partially smoked and	
Glass			dried) patches, due to	
Negatives			excessive thickness caused	
- Box 377			by irregular machining.	
to 570	RUBB/551	c.1920	(Close view.)	8.2x8.2
	RUBB/JJI	C.1920		0.280.2
			552 Smoked sheet showing	
C1			white (partially smoked and	
Glass			dried) patches, due to	
Negatives			excessive thickness caused	
- Box 377		1000	by irregular machining.	
to 570	RUBB/552	c.1920	Close up photograph	8.2x8.2
Glass			553 Tamil man making up	
Negatives			rubber packing cases from	
- Box 377			three-ply wood. Mid -shot	
to 570	RUBB/553	c.1920	photograph	8.2x8.2
			554 Cases of rubber, showing	
			method of lining with rubber	
			to prevent contamination of	
			main bulk of rubber in	
Glass			cases. (Note also canvas	
Negatives			bale of rubber on the	
- Box 377			right.) Mid -shot	
to 570	RUBB/554	c.1920	photograph	8.2x8.2
			555 Packing shed, showing	
			cases of rubber ready for	
			export. (Note also two cases	
Glass			not yet closed showing	
Negatives			excess of rubber to be	
- Box 377				
		a 1000	pressed into cases by	0 00 0
to 570	RUBB/555	c.1920	presses, and rubber linen	8.2x8.2

			overlapping sides. Each case	
			contains 2241b. smoked	
			sheet, 10 cases going to	
			make 1 ton.). Mid -shot	
			photograph	
Glass				
Negatives				
- Box 377			556 Diagram. Two-plate	
to 570	RUBB/556	c.1920	cavity moulds. (A, B, C, D).	8.2x8.2
Glass				
Negatives				
- Box 377			557 Mould massage roller.	
to 570	RUBB/557	c.1920	Close up photograph	8.2x8.2
Glass				
Negatives				
- Box 377			558 Moulds for handle grips.	
to 570	RUBB/558	c.1920	Close up photograph	8.2x8.2
Glass	1.022,000		ap photograph	••••••
Negatives				
- Box 377			559 Ball moulds. Close up	
		~ 1020	-	0 20 2
to 570	RUBB/559	c.1920	photograph	8.2x8.2
Glass			560 Mould, and cores for	
Negatives			same. Mold for milking	
- Box 377			machine inflation. Mid -shot	
to 570	RUBB/560	c.1920	photograph	8.2x8.2
Glass				
Negatives				
- Box 377			561 Mould for pipe coupling.	
to 570	RUBB/561	c.1920	Close up photograph	8.2x8.2
Glass				
Negatives				
- Box 377			562 Mould for bathing cap.	
to 570	RUBB/562	c.1920	Close up photograph	8.2x8.2
Glass				
Negatives				
- Box 377			563 Mould for soles and	
to 570	RUBB/563	c.1920	heels. Close up photograph	8.2x8.2
Glass	1.022,000			
Negatives				
- Box 377			564 Mould for heels. Mid -	
		a 1020		0 20 0
to 570	RUBB/564	c.1920	shot photograph	8.2x8.2
Glass			565 Provan Works, Glasgow,	
Negatives			Gas Dept., General View.	
- Box 377		1	May, 1932. Mid -shot	
to 570	RUBB/565	c.1920	photograph	8.2x8.2
			566 Provan Works, Glasgow,	
Glass			Gas Dept., showing 16 in.	
Negatives			overhead gas mains with	
- Box 377			Victaulic joints.	
to 570	RUBB/566	c.1920	(Photographed May, 1932,	8.2x8.2

				1
			after 11 years use.). Mid	
			shot photograph	
Glass				
Negatives				
- Box 377			567 Portrait: J.G.Fol. Close	
to 570	RUBB/567	c.1920	up photograph	8.2x8.2
Glass				
Negatives				
- Box 377			568 Portrait: Senator G.B.	
to 570	RUBB/568	c.1920	Pirelli. Close up photograph	8.2x8.2
Glass	1.022, 000	0.1010		
Negatives			569 Graph pressure against	
- Box 377			temperature. Sublimed	
		a 1020	-	0 2 0 2
to 570	RUBB/569	c.1920	sulphur phase diagram.	8.2x8.2
Glass			570 Drawing. Sublimed	
Negatives			sulphur x 300 (Fig.1).	
- Box 377			Sublimed sulphur x 220 (on	
to 570	RUBB/570	c.1920	slide).	8.2x8.2
Glass				
Negatives			571 Drawing. Precipitated	
- Box 571			sulphur x 300 (x 220 on	
to 760	RUBB/571	c.1920	slide).	8.2x8.2
Glass				
Negatives			572 Drawing. Powdered roll	
- Box 571			sulphur x 300 (x 220 on	
to 760	RUBB/572	c.1920	slide).	8.2x8.2
Glass	, , ,		, , , , , , , , , , , , , , , , , , ,	
Negatives			573 Photomicrograph. Sulphur	
- Box 571			bloom on rubber x 125 (on	
to 760	RUBB/573	c.1920	slide).	8.2x10.8
Glass	C/C/DU0/J/J	C.1920	574 Photomicrograph (30	0.2810.0
			2 1	
Negatives			diameters). Sulphur	
- Box 571		1.000	crystallising in vulcanised	0 0 1 0 0
to 760	RUBB/574	c.1920	rubber x 21 (on slide).	8.2x10.8
Glass				
Negatives			575 (2 negatives) Portrait.	
- Box 571			A. Van Rossem. Mid -shot	
to 760	RUBB/575	c.1920	photograph	8.2x10.8
Glass				
Negatives			576 Portrait of W. A.	
- Box 571			Williams. Close up	
to 760	RUBB/576	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 571			577 Portrait. BLJ. Eaton.	
to 760	RUBB/577	c.1920	(Pen and ink drawing).	8.2x10.8
	1/0/0/0//	C.1920	(TOH and THE GLAWING).	0.2810.0

Class			E70 Approximation (No. 1 to 11)	
Glass			578 Apparatus (No. 1 to 11)	
Negatives			on bench designed by	
- Box 571			R.A.B.R.M. (1932). Close up	
to 760	RUBB/578	c.1920	photograph	8.2x10.8
			579 Graph. Growth of stock	
			1927-1932 at R.A.B.R.M.	
			Library. Plot of books,	
			pamphlets, (curve 1) index	
Glass			cards and references in	
Negatives			summary of current	
- Box 571			literature (curves 2 and 3)	
to 760	RUBB/579	c.1920	against years.	8.2x10.8
			580 Graph of enquiries and	
			loans per year 1927-1932 at	
Glass			the R.A.B.R.M. Library. Plot	
Negatives			of enquiries (curve 1) and	
- Box 571			loans (curve 2) against	
to 760	RUBB/580	c.1920	years.	8.2x10.8
	100 /000	C. I J 2 U	581 R.A.B.R.M. ground floor	0.2410.0
			plan of laboratories. Typist	
Glass				
			room, private office, board	
Negatives			room, laboratories No 1 and	
- Box 571		1.0.0.0	2, miling and vulcanising	
to 760	RUBB/581	c.1920	room and library.	8.2x10.8
Glass				
Negatives				
- Box 571			582 Portrait. W.H.Paull.	
to 760	RUBB/582	c.1920	Close up photograph	8.2x10.8
Glass			583 W.H.Paull receiving form	
Negatives			Sir G. Baharrel the Colwyn	
- Box 571			gold medal April 27, 1933.	
to 760	RUBB/583	c.1920	Mid -shot photograph	8.2x10.8
Glass				
Negatives				
- Box 571			584 Portrait. A. Spencer.	
to 760	RUBB/584	c.1920	Close up photograph	8.2x10.8
Glass				
Negatives				
- Box 571			585 Portrait. H.H. Burton.	
to 760	RUBB/585	c.1920	Close up photograph	8.2x10.8
Glass			ar photograph	
Negatives				
- Box 571			586 Portrait. F.G. Leahy.	
to 760	RUBB/586	c.1920	Close up photograph	8.2x10.8
Glass	1,000,000	C.IJ20	crose ab buocodrabu	0.2410.0
Negatives				
- Box 571		~ 1000	587 Portrait. F. Pleger.	0 010 0
to 760	RUBB/587	c.1920	Close up photograph	8.2x10.8

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			588 Table of non- rubber	
			constituents in raw rubber,	
Glass			percentages. (Moisture,	
Negatives			acidity, water extract,	
- Box 571			acetone extract, protein and	
to 760	RUBB/588	c.1920	ash).	8.2x10.8
			589 Table. Raw rubber	
			production, 1932.	
			(Plantation: Malaya, Dutch	
Glass			East Indies, Ceylon, French	
Negatives			Indo China, Sarawak, British	
- Box 571			N.Borneo, India, Siam; Wild:	
to 760	RUBB/589	c.1920	Brazil and Africa).	8.2x10.8
Glass	100007 0000	0.1920		0.2810.0
Negatives			590 Portrait. Major	
- Box 571			O.W.H.Briggs. Close up	
		~ 1020		8.2x10.8
to 760	RUBB/590	c.1920	photograph	0.ZXIU.8
			591Graph. Price and Japanese	
Glass			consumption in tons against	
Negatives			years. Japanese consumption	
- Box 571			of raw rubber in relation to	
to 760	RUBB/591	c.1920	price.	8.2x10.8
Glass			592 Graph. (2 negatives).	
Negatives			Stress (kg/cm2) against %	
- Box 571			strain. Stress-strain curves	
to 760	RUBB/592	c.1920	for vulcanised rubber.	8.2x10.8
Glass				
Negatives			594 Effect of Hysteresis in	
- Box 571			solid rubber tyre. Close up	
to 760	RUBB/594	c.1920	photograph	6.2x8.9
Glass				
Negatives			595 Geer oven containing	
- Box 571			rings for ageing. Close up	
to 760	RUBB/595	c.1920	photograph	6.2x8.9
20 / 00	10000/0000	0.1520	596 Graph of buffer and	0.240.9
Glass			stroke (height in inches)	
Negatives			against load in tons.	
- Box 571		- 1000	Compression of rubber and	0 0 1 0 0
to 760	RUBB/596	c.1920	steel buffing springs.	8.2x10.8
			597 Portrait. D. Matz	
			(Founder of D.Matz & Sons,	
Glass			D. Matz (Manchester), Ltd.,	
Negatives			and Martin Waterproof &	
- Box 571			Leatherwear Co., Ltd.).	
to 760	RUBB/597	c.1920	Close up photograph	8.2x10.8
			598 Forster rubber ringed	
Glass			joint (with broken socket)	
Negatives			brought in from Hexham Road	
- Box 571			(West Wylam) 1932, June	
to 760	RUBB/598	c.1920	28th. (Main has been in	8.2x10.8

			ground for over 60 years).	
			Close up photograph	
Glass				
Negatives				
- Box 571			599 Portrait. H.D. Cowen.	
		~ 1020		0 010 0
to 760	RUBB/599	c.1920	Close up photograph	8.2x10.8
Glass				
Negatives				
- Box 571		1.0.0.0	600 Portrait. J.G. Hay.	
to 760	RUBB/600	c.1920	Close up photograph	8.2x10.8
Glass				
Negatives			601 Portrait. N.C.S.	
- Box 571			Bosanquet. Close up	
to 760	RUBB/601	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 571			602 Portrait. Sir Montague	
to 760	RUBB/602	c.1920	Hughman. Close up photograph	8.2x10.8
Glass				
Negatives				
- Box 571			603 Portrait. Sir Herbert	
to 760	RUBB/603	c.1920	Wright. Close up photograph	8.2x10.8
Glass				
Negatives				
- Box 571			604 Portrait. H.C. Young.	
to 760	RUBB/604	c.1920	Close up photograph	8.2x10.8
Glass	100007 001	0.1920		0.21110.0
Negatives				
- Box 571			605 Portrait. A.C. Hymans.	
to 760	RUBB/605	c.1920	Close up photograph	8.2x10.8
Glass	1/00/000	C.IJ20	crose up phocograph	0.2410.0
			606 Portrait. J. Haworth	
Negatives				
- Box 571		~ 1000	(signed). Close up	0 010 0
to 760	RUBB/606	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 571	·		607 Portrait. J. McDowell.	
to 760	RUBB/607	c.1920	Close up photograph	8.2x10.8
Glass				
Negatives				
- Box 571			608 Portrait. H.L. Kenward.	
to 760	RUBB/608	c.1920	Close up photograph	8.2x10.8
Glass			609 Portrait. F.H. Sprang.	
Negatives			(Chairman of Heinke's. Vice	
- Box 571			P., R.A.B.R.M.). Close up	
to 760	RUBB/609	c.1920	photograph	8.2x10.8

			610 Dontroit Gin C Charmen	
			610 Portrait. Sir S. Chapman (Economic adviser to Baldwin	
Glass			Administration with Sir H.	
Negatives			Hambling, advised abolition	
- Box 571			of Restriction). Close up	
to 760	RUBB/610	c.1920	photograph	8.2x10.8
Glass	ROBB/ 010	C.1 <i>5</i> 20		0.210.0
Negatives			611 Portrait. Sir H.	
- Box 571			Hambling. Close up	
to 760	RUBB/611	c.1920	photograph	8.2x10.8
Glass	1100007 011	0.1320	photograph	0.21110.0
Negatives			612 Portrait. G.J. Thomas	
- Box 571			(Monarch Rubber Co.). Close	
to 760	RUBB/612	c.1920	up photograph	8.2x10.8
Glass			613 Portrait. F.D. Ascoli.	
Negatives			From the painting by Philip	
- Box 571			Conrad, R.A Close up	
to 760	RUBB/613	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 571			614 Portrait. J. Tinto.	
to 760	RUBB/614	c.1920	Close up photograph	8.2x10.8
Glass				
Negatives			615 Portrait. B.H. Binder	
- Box 571			(Chairman. I.R.G.P.). Close	
to 760	RUBB/615	c.1920	up photograph	8.2x10.8
Glass				
Negatives				
- Box 571		1	616 Portrait. F. Webster.	
to 760	RUBB/616	c.1920	Close up photograph	8.2x10.8
Glass			617 Nordac rubber lined plug	
Negatives			type acid valve (cut away to	
- Box 571	ר געם גע	a 1020	show lining). Close up	0 2 1 0 0
to 760 Glass	RUBB/617	c.1920	photograph 618 Experimental silk	8.2x10.8
GIASS Negatives			washing apparatus	
- Box 571			(Vulcoferran). Mid -shot	
to 760	RUBB/618	c.1920	photograph	8.2x10.8
Glass	1000,010	C.1720	619 Vulcoferran lined and	0.2410.0
Negatives			covered valves and fittings	
- Box 571			for pickling tanks. Close up	
to 760	RUBB/619	c.1920	photograph	8.2x10.8
			620 Pickling tank lined with	
Glass			Nordac acid resisting sheet	
Negatives			rubber and 9'' thick acid	
- Box 571			resisting blocks. Mid -shot	
to 760	RUBB/620	c.1920	photograph	8.2x10.8
_				
Glass			621 Non-return ball valve	
Negatives			lined with Nordac acid	
- Box 571	RUBB/621	c.1920	resisting sheet rubber. (two	8.2x10.8

+- 700				
to 760			on bench). Close up	
			photograph	
			622 Nordag patent balleys	
			622 Nordac patent bellows	
C 1			type glandless acid valve	
Glass			(rubber lined). A cut-away	
Negatives			perspective view of the	
- Box 571			valve showing all the	
to 760	RUBB/622	c.1920	salient features.	8.2x10.8
			623 Method of lining tanks	
			with Nordac sheet rubber and	
Glass			protecting layer of acid	
Negatives			tiles mechanically supported	
- Box 571			by patent method of	
to 760	RUBB/623	c.1920	interlocking. (3 diagrams)	8.2x10.8
			624 Nordac patent rubber	
Glass			concrete storage tanks lined	
Negatives			with Nordac acid resisting	
- Box 571			sheet rubber. Close up	
to 760	RUBB/624	c.1920	photograph	8.2x10.8
			625 Diagrams: Fig. 2, Fig.	
			3, Fig. 4 . Method of lining	
			wood tanks with sheet	
			rubber. Fig. 2: Birsdmouth	
			joint. Fig. 3: Birsdmouth	
			joint filled with Nordac	
			patent rubber cement	
			junction and covered with	
			sheet rubber. Fig. 4: Shows	
			how rubber would sink	
<u></u>				
Glass			between joints when wood	
Negatives			shrinks and Nordac rubber	
- Box 571		1000	cement and birdsmouth joints	0 0 1 0 0
to 760	RUBB/625	c.1920	are not employed.	8.2x10.8
			626 Vulcanisation of rubber	
Glass			lining in a large open-	
Negatives			process tank by means of	
- Box 571			boiling water. Mid -shot	
to 760	RUBB/626	c.1920	photograph	8.2x10.8
			627 Application of	
Glass			unvulcanised rubber lining	
Negatives			compound in sheet form to a	
- Box 571			steel pickling tank. Mid -	
to 760	RUBB/627	c.1920	shot photograph	8.2x10.8
			628 Application of special	
			adhesive to a steel pickling	
Glass			tank (worker on picture).	
Negatives			(Solvent fumes necessitate	
- Box 571			the use of gas masks during	
to 760	RUBB/628	c.1920	this operation). Mid -shot	8.2x10.8
	- , - = -			

			photograph	
Glass			629 Sand-blasting interior	
Negatives			of a steel pickling tank in	
- Box 571			preparation for rubber	
to 760	RUBB/629	c.1920		8.2x10.8
10 /00	RUDD/029	C.1920	lining. Mid -shot photograph 630 Interior view of one of	0.2X10.0
			the 32 000 gal. tanks.	
			Approximately 1800 sq.ft.	
_			(1720 lb) of 3/16 in. rubber	
Glass			lining were used in each	
Negatives			tank. Inside dimensions,	
- Box 571			11ft. In diameter, 48 ft.	
to 760	RUBB/630	c.1920	long. Close up photograph	8.2x10.8
			631 One of the 32 000 gal.	
Glass			tanks. Hydrochloridic acid	
Negatives			storage units in the United	
- Box 571			States before rubber lining.	
to 760	RUBB/631	c.1920	Mid -shot photograph	8.2x10.8
			632 Modified pump casing	
Glass			lined with "Linatex" rubber	
Negatives			as used for pumping acid and	
- Box 571			abrasive solutions (front	
to 760	RUBB/632	c.1920	view). Close up photograph	8.2x10.8
	RODD/ 052	C.1 <i>J</i> 20	633 Modified pump casing	0.210.0
Glass			lined with "Linatex" rubber	
Negatives - Box 571			as used for pumping acid and	
		1000	abrasive solutions. Close up	0 0 10 0
to 760	RUBB/633	c.1920	photograph	8.2x10.8
Glass				
Negatives			634 Rubber lined steel tube	
- Box 571			for carrying acid gases.	
to 760	RUBB/634	c.1920	Close up photograph	8.2x10.8
Glass				
Negatives				
- Box 571			635 Portrait. D.F. Twiss.	
to 760	RUBB/635	c.1920	Close up photograph	8.2x10.8
Glass				
Negatives				
- Box 571			636 Portrait of J.D.Hooker.	
to 760	RUBB/636	c.1920	Close up photograph	8.2x10.8
Glass	, , ,			
Negatives				
- Box 571			637 Portrait of W.I.Hooker.	
to 760	RUBB/637	c.1920	Close up photograph	8.2x10.8
Glass	1 CO / CL O J	C.1920	638 Mathematical model of	0.2A10.0
Negatives			structure of Ebonite	
- Box 571		1	(curve). (Set % against	0 0 1 0 0
to 760	RUBB/638	c.1920	temperature)	8.2x10.8

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Glass			639 Set-temperature curves	
Negatives			for rubber-wax model	
- Box 571			(Experimental) (Curves: Set	
to 760	RUBB/639	c.1920	against temperature).	8.2x10.8
Glass			640 Graph. Set against	
Negatives			temperature. Permanent set	
- Box 571			of Ebonite at constant	
	RUBB/640	~ 1020	torsional strain.	0 0-10 0
to 760	RUBB/640	c.1920	torsional strain.	8.2x10.8
Glass				
Negatives				
- Box 571			641 Permanent set apparatus	
to 760	RUBB/641	c.1920	for Ebonite. Diagram.	8.2x10.8
			642 Graphical representation	
			of internal heating of	
			Ebonite during	
			vulcanisation. Curve: heat	
Glass			produced; straight line:	
			1 3	
Negatives			heat dissipated. Graph of	
- Box 571			rate of heat production or	
to 760	RUBB/642	c.1920	loss against temperature.	8.2x10.8
Glass				
Negatives				
- Box 571			643 Portrait. J. Fairbairn.	
to 760	RUBB/643	c.1920	Close up photograph	8.2x10.8
Glass				
Negatives				
- Box 571			644 Portrait. W.F.V. Cox.	
to 760	RUBB/644	c.1920		8.2x10.8
	RUDD/044	C.1920	Close up photograph	0.2X10.0
Glass			645 Rubber lined railway	
Negatives			tank and storage tank for	
- Box 571			acids. Old method. Mid -shot	
to 760	RUBB/645	c.1920	photograph	8.2x10.8
Glass			646 Rubber lined railway	
Negatives			tank and storage tank for	
- Box 571			acids. New method. Mid -shot	
to 760	RUBB/646	c.1920	photograph	8.2x10.8
Glass	1.0000/010	0.1720	Procograph	· · · · · · · · · · · · · · · · · · ·
			647 Manufacture of Revertex	
Negatives				
- Box 571		1000	(tanks). Mid -shot	0 0 1 0 0
to 760	RUBB/647	c.1920	photograph	8.2x10.8
Glass			648 (set of 5 machines).	
Negatives			Vulcanising equipment at the	
- Box 571			R.A.B.R.M. Mid -shot	
to 760	RUBB/648	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 571			619 Dortroit II II Durton	
		~ 1000	649 Portrait. H.H. Burton.	0 010 0
to 760	RUBB/649	c.1920	Close up photograph	8.2x10.8

Glass				
Negatives			650 Portrait. W.J.	
- Box 571			Gallagher. Close up	
to 760	RUBB/650	c.1920	photograph	8.2x10.8
20 / 00	1(0DD) 000	C.1920	652 Ebonite lined vessels	0.2810.0
Class				
Glass			used in the manufacture of	
Negatives			disinfectants. (Dunlop	
- Box 571		1000	Rubber Co., Ltd.). Mid -shot	0 0 1 0 0
to 760	RUBB/652	c.1920	photograph	8.2x10.8
Glass				
Negatives			653 Portrait. F.G. Smith	
- Box 571	((signed). Close up	
to 760	RUBB/653	c.1920	photograph	8.2x10.8
Glass				
Negatives			654 Portrait. Col. A.P. Pyne	
- Box 571			(signed). Close up	
to 760	RUBB/654	c.1920	photograph	8.2x10.8
Glass			655 Manufacture of rubber	
Negatives			lined equipment. Railway	
- Box 571			tank (Leyland). Mid -shot	
to 760	RUBB/655	c.1920	photograph	8.2x8.2
Glass			656 Manufacture of rubber	
Negatives			lined equipment. Cylindrical	
- Box 571			acid tanks at makers work.	
to 760	RUBB/656	c.1920	Mid -shot photograph	8.2x8.2
Glass	- ,		657 Manufacture of rubber	
Negatives			lined equipment. Cylindrical	
- Box 571			acid tank in use. Mid -shot	
to 760	RUBB/657	c.1920	photograph	8.2x8.2
Glass	10000,000,	0.1920	658 Manufacture of rubber	0.240.2
Negatives			lined equipment. Rubber	
- Box 571			lined wooden trough. Mid -	
to 760	RUBB/658	c.1920	shot photograph	8.2x8.2
Glass	1000 1000	C.1920	659 Manufacture of rubber	0.240.2
Negatives - Box 571			lined equipment. Metal tank	
		~ 1000	ready for receiving rubber.	0 00 0
to 760	RUBB/659	c.1920	Close up photograph	8.2x8.2
Glass			660 Manufacture of rubber	
Negatives			lined equipment. Rubber	
- Box 571		1	lined sink. Mid -shot	
to 760	RUBB/660	c.1920	photograph	8.2x8.2
Glass			661 Manufacture of rubber	
Negatives			lined equipment. Shallow	
- Box 571			trough - rubber lined. Close	
to 760	RUBB/661	c.1920	up photograph	8.2x8.2
Glass				
Negatives				
- Box 571			662 Portrait. E.C. Lacey.	
to 760	RUBB/662	c.1920	Close up photograph	8.2x10.8

Glass		1		
			CC2 Deutrasite Madam I H	
Negatives			663 Portrait. Major J.H.	
- Box 571		1000	Mandelberg. Close up	0 0 1 0 0
to 760	RUBB/663	c.1920	photograph	8.2x10.8
Glass				
Negatives			664 Table. E.R.A.	
- Box 571			Inflammability tests on hard	
to 760	RUBB/664	c.1920	rubber.	8.2x10.8
			665 Diagram. Plan of	
Glass			base.(front elevation; end	
Negatives			elevation). French furnace	
- Box 571			for testing inflammability	
to 760	RUBB/665	c.1920	of rubber.	8.2x10.8
Glass	- ,			
Negatives			666 Diagram. "Fire-Tube"	
- Box 571			inflammability testing	
to 760	RUBB/666	c.1920	apparatus.	8.2x10.8
Glass	1000 1000	C.1920	667 (with 4 films) B.S.I.	U. ZAIU. 0
Negatives			Inflammability testing	
- Box 571		1000	apparatus. Mid -shot	0 0 1 0 0
to 760	RUBB/667	c.1920	photograph	8.2x10.8
Glass				
Negatives			668 Table. Extinction of	
- Box 571			strips of rubber on	
to 760	RUBB/668	c.1920	withdrawal from flame.	8.2x10.8
Glass				
Negatives			669 Typical results in	
- Box 571			B.S.I. Inflammability tests	
to 760	RUBB/669	c.1920	on rubber.	8.2x10.8
Glass				
Negatives			670 Table. (samples 1 to	
- Box 571			16). Water absorption of	
to 760	RUBB/670	c.1920	fireproofed rubbers.	8.2x10.8
Glass	- ,		1	
Negatives				
- Box 571			671 Tyre testing machine.	
to 760	RUBB/671	c.1920	Close up photograph	8.2x10.8
Glass	T/0/00/1	C.1920		U. ZAIU. 0
			672 Spreading machine for textiles. John Dowhan & Co.	
Negatives				
- Box 571		- 1000	Makers, Bury. Close up	0 0 0 0
to 760	RUBB/672	c.1920	photograph	8.2x8.2
Glass				
Negatives			673 Spreading and dusting	
- Box 571	·		machine for textiles. Close	
to 760	RUBB/673	c.1920	up photograph	8.2x8.2
			674 Hydraulic bale cutter	
Glass			shown actually cutting a 2	
Negatives			wt. bale of smoked rubber	
- Box 571			sheet rubber. Mid -shot	
to 760	RUBB/674	c.1920	photograph	8.2x10.8

			675 The drug room showing	
			the various constituents of	
			a "mix" of rubber being	
Glass			weighed out in accordance	
Negatives			with a chemical formula	
- Box 571			issued by the Laboratory.	
to 760	RUBB/675	c.1920	Mid -shot photograph.	8.2x10.8
Glass			676 Mixing mill in operation	
Negatives			(1st stage of mix), showing	
- Box 571			special control lamps. Mid -	
to 760	RUBB/676	c.1920	shot photograph	8.2x10.8
			677 Mixing mill in operation	
Glass			(approaching final stage of	
Negatives			mix), showing special	
- Box 571			control lamps. Mid -shot	
to 760	RUBB/677	c.1920	photograph	8.2x10.8
			678 Special recording	
			instruments in the Chart	
			room which actually print	
			the time of every "mix" of	
Glass			rubber and of the curing	
Negatives			period of every tyre	
- Box 571			produced in the Factory. Mid	
to 760	RUBB/678	c.1920	-shot photograph	8.2x10.8
Glass	RODD/0/0	0.1920	679 "Close up" of recording	0.2810.0
Negatives			instrument showing how time	
- Box 571			factor is recorded. Close up	
to 760	RUBB/679	c.1920	photograph	8.2x10.8
	KOBD/0/9	C.1920	680 Spreading machines,	0.2810.0
Glass			shown applying the	
Negatives				
– Box 571			preliminary soaking coat of	
		~ 1020	rubber to foundation fabric.	0 010 0
to 760	RUBB/680	c.1920	Mid -shot photograph	8.2x10.8
			681 Breaker machine, used	
			for warming up hard, tough	
Glass			tread stock before it is	
Negatives			passed through the	
- Box 571		1.0.0.0	calendars. Mid -shot	
to 760	RUBB/681	c.1920	photograph	8.2x10.8
Glass			682 Calendar, shown actually	
Negatives			proofing the cotton cord	
- Box 571			foundation. Mid -shot	
to 760	RUBB/682	c.1920	photograph	8.2x10.8
Glass			683 Calendar shown running	
Negatives			"strip" material used for	
- Box 571			building up car tyres. Close	
to 760	RUBB/683	c.1920	up photograph	8.2x10.8
Glass			684 Calendar shown profiling	
Negatives		1.000	car treads. Mid -shot	
- Box 571	RUBB/684	c.1920	photograph	8.2x10.8

to 760				
			685 Weighing and inspecting	
Glass			Calendared tread stock	
Negatives			before issue to the Tyre	
- Box 571		1.0.0.0	Building Section. Mid -shot	0 0 1 0 0
to 760	RUBB/685	c.1920	photograph	8.2x10.8
Glass				
Negatives - Box 571			686 Machine showing building	
- BOX 571 to 760		c.1920	drum in collapsed position.	8.2x10.8
	RUBB/686	C.1920	Mid -shot photograph	0.2X10.0
Glass			607 Dutting on the first plu	
Negatives - Box 571			687 Putting on the first ply of foundation cord. Mid -	
to 760	RUBB/687	c.1920	shot photograph	8.2x10.8
			688 (Autotype Works, The	0.2410.0
Glass			Autotype Co.Ltd., London	
Negatives			W13). Showing next two plies	
- Box 571			in position, (see RUBB/687).	
to 760	RUBB/688	c.1920	Mid -shot photograph	8.2x10.8
Glass	î			
Negatives			689 Putting chafers and	
- Box 571			strips in position. Close up	
to 760	RUBB/689	c.1920	photograph	8.2x10.8
Glass				
Negatives			690 Putting pad rubber in	
- Box 571			position. Close up	
to 760	RUBB/690	c.1920	photograph	8.2x10.8
Glass				
Negatives			691 Putting profiled tread	
- Box 571		1.0.0.0	in position. Close up	0 0 1 0 0
to 760	RUBB/691	c.1920	photograph	8.2x10.8
Glass			692 Final rolling process to	
Negatives			make tyre structure	
- Box 571		a 1020	homogenous. Close up	0 2++10 0
to 760	RUBB/692	c.1920	photograph 693 Cutting impregnated	8.2x10.8
Glass			cotton cord foundation on	
Negatives			the bias before issue to car	
- Box 571			tyre Building Section. Close	
to 760	RUBB/693	c.1920	up photograph	8.2x10.8
Glass			694 Putting beads in	
Negatives			position and turning edges	
- Box 571			of fabric over. Close up	
to 760	RUBB/694	c.1920	photograph	8.2x10.8
Glass				
Negatives			695 Rough shaping the tyre	
- Box 571			hydraulically. Close up	

01				
Glass				
Negatives			696 Fitting air bag to rough	
- Box 571			shaped cover. Close up	
to 760	RUBB/696	c.1920	photograph	8.2x10.8
			697 Completed vulcanised	
			tyres being taken from new	
			pattern, hydraulically	
			operated double-decker	
			vulcanising press.	
Glass			Unvulcanised tyres with air	
Negatives			bags in place on left of	
- Box 571			operator's feet. Close up	
		- 1000		0 0 1 0 0
to 760	RUBB/697	c.1920	photograph	8.2x10.8
			698 Special temperature and	
			time recording apparatus	
			attached to each double-	
Glass			decker press and connected	
Negatives			up with the instrument in	
- Box 571			the Chart room. Close up	
to 760	RUBB/698	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 571			699 Inspecting and trimming	
to 760	RUBB/699	c.1920	tyres. Close up photograph	8.2x10.8
	RUDD/099	C.1920	cyres. crose up photograph	0.2X10.0
Glass				
Negatives			700 Spraying tyres with	
- Box 571	(protective rubber paint.	
to 760	RUBB/700	c.1920	Close up photograph	8.2x10.8
Glass				
Negatives				
- Box 571			701 Wrapping tyres (John	
to 760	RUBB/701	c.1920	Bull). Close up photograph	8.2x10.8
Glass			702 Photomicrograph.	
Negatives			Determination of water	
- Box 571			absorption of latex treated	
to 760	RUBB/702	c.1920	cloth.	8.2x8.2
	201 /0207	C.1920		0.240.2
Glass				
Negatives			703 Cook's rubber ageing	
- Box 571	/		bomb. (Chas W.Cook & Sons).	
to 760	RUBB/703	c.1920	Close up photograph	8.2x10.8
Glass				
Negatives			704 Kelvin, Bottomley &	
- Box 571			Baird Fugitometer. Close up	
to 760	RUBB/704	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 571			705 Hanovia rubber ageing	
to 760	RUBB/705	c.1920	lamp. Close up photograph	8.2x10.8
10 /00	KODD/ (00	C.1920	Tramp. Crose up buorograph	U.ZXIU.0

Glass			706 Sample chart (5	
Negatives			specimens). Rubber made with	
- Box 571			various accelerators. Before	
	RUBB/706	~ 1020		0 210 0
to 760	RUBB/ /06	c.1920	and after exposure to light.	8.2x10.8
Glass				
Negatives			707 Stretched rubber showing	
- Box 571	(surface cracks after ageing.	
to 760	RUBB/707	c.1920	(sample)	8.2x10.8
Glass				
Negatives				
- Box 571			708 Cutting off Profiled	
to 760	RUBB/708	c.1920	Tread. Close up photograph	8.2x10.8
Glass				
Negatives				
- Box 571			709 Inner tube Splicing	
to 760	RUBB/709	c.1920	Machine. Close up photograph	8.2x10.8
Glass	,		710 Table. Silica in hard	
Negatives			rubber. General properties	
- Box 571			(yield time, permittivity,	
to 760	RUBB/710	c.1920	power factor). Table I.	8.2x8.2
Glass		C • 1 7 2 0	Power raccory. rabie r.	J. 2AU. 2
Negatives			711 Table. Silica in hard	
- Box 571				
	DIIDD / 711	- 1000	rubber. Various types of	0 0 0 0
to 760	RUBB/711	c.1920	silica. Table II.	8.2x8.2
			712 Table. Silica in hard	
			rubber. Concentration of	
			silica (filler, plastic	
Glass			yield at 90 oC, impact	
Negatives			strength, cross breaking	
- Box 571			strength, cross breaking	
to 760	RUBB/712	c.1920	elongation). Table III.	8.2x8.2
Glass				
Negatives				
- Box 571			713 Portrait. S.J.Peachey.	
to 760	RUBB/713	c.1920	Close up photograph	8.2x10.8
Glass			714 Gas filled rubber figure	
Negatives			of Mickey Mouse as used at	
- Box 571			American carnivals. Mid -	
to 760	RUBB/714	c.1920	shot photograph	8.2x10.8
Glass			715 Gas filled rubber figure	
Negatives			of a Bird as used at	
- Box 571			American carnivals. Mid -	
to 760	RUBB/715	c.1920		8.2x10.8
	TI IDUNI	C.1920	shot photograph	0.2810.0
Glass			716 Gas filled rubber figure	
Negatives			with a Pig's Head as used at	
- Box 571		1.000	American carnivals. Mid -	0 0 1 0 0
to 760	RUBB/716	c.1920	shot photograph	8.2x10.8
Glass			717 Gas filled rubber figure	
			_	
Negatives - Box 571	RUBB/717	c.1920	of a Dog as used at American carnivals. Mid -shot	8.2x10.8

to 760			photograph	
Glass			718 Gas filled rubber figure	
Negatives			of a Baby as used in	
- Box 571			American carnivals. Mid -	
to 760	RUBB/718	c.1920	shot photograph	8.2x10.8
Glass			719 Gas filled rubber figure	
Negatives			of a Pig as used in American	
- Box 571			carnivals. Mid -shot	
to 760	RUBB/719	c.1920	photograph	8.2x10.8
			720 World Fair, Chicago:	
Glass			Model of Pre-Historic	
Negatives			Animals made partly of	
- Box 571			rubber. View I. Mid -shot	
to 760	RUBB/720	c.1920	photograph	8.2x10.8
			722 World Fair, Chicago:	
Glass			Model of Pre-Historic	
Negatives			Animals made partly of	
- Box 571			rubber. View II. Mid -shot	
to 760	RUBB/722	c.1920	photograph	8.2x10.8
Glass			723 World Fair, Chicago:	
Negatives			Model of other Pre-Historic	
- Box 571			Animals made partly of	
to 760	RUBB/723	c.1920	rubber. Mid -shot photograph	8.2x10.8
			724 World Fair, Chicago:	
			Model of Pre-Historic	
			Animals made partly of	
Glass			rubber. (The Tyrannosaurus	
Negatives			Rex, of King of the tyrant	
- Box 571			reptiles). Mid -shot	
to 760	RUBB/724	c.1920	photograph	8.2x10.8
			725 World Fair, Chicago:	
			General view of Exhibition	
Glass			showing artificial	
Negatives			vegetation, which	
- Box 571			incorporated rubber. Mid -	
to 760	RUBB/725	c.1920	shot photograph	8.2x10.8
Glass				
Negatives			726 Barnum's Museum: The	
- Box 571			rubber skinned man. Mid shot	
to 760	RUBB/726	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 571			727 Barnum's Museum: Jenny	
to 760	RUBB/727	c.1920	Lind. Mid -shot photograph	8.2x10.8
Glass				
Negatives			728 Barnum's Museum: Captive	
- Box 571			Whale display. Mid -shot	
to 760	RUBB/728	c.1920	photograph	8.2x10.8
	,			

Glass			729 Barnum's Museum: Jumbo.	
			"The only Mastodon on the	
Negatives			-	
- Box 571		- 1000	Earth". (on stand). Mid -	0 0 1 0 0
to 760	RUBB/729	c.1920	shot photograph	8.2x10.8
Glass				
Negatives			731 Flex Testing machine,	
- Box 571			Dupont Model. Mid -shot	
to 760	RUBB/731	c.1920	photograph	8.2x10.8
Glass				
Negatives			732 Permanent set (constant	
- Box 571			elongation apparatus). Close	
to 760	RUBB/732	c.1920	up photograph	8.2x10.8
Glass				
Negatives				
- Box 571			733 Scott tensile Tester.	
to 760	RUBB/733	c.1920	Close up photograph	8.2x10.8
Glass				
Negatives			734 Punch for cutting	
- Box 571			Dumbbell Test Pieces. Close	
to 760	RUBB/734	c.1920	up photograph	8.2x10.8
Glass	11022, 701	0.1010		0.1110.00
Negatives			735 Punch for cutting	
- Box 571			Schopper rings. Close up	
to 760	RUBB/735	c.1920	photograph	8.2x10.8
Glass	RUBB/733	C.1920	photograph	0.2810.0
			726 Dunch for outting	
Negatives			736 Punch for cutting	
- Box 571		~ 1020	Schopper rings. (working on	0 010 0
to 760	RUBB/736	c.1920	bench). Mid -shot photograph	8.2x10.8
Glass			737 Scleroscope Resilience	
Negatives			tester, in use on golf ball	
- Box 571	(cor .(working on bench). Mid	
to 760	RUBB/737	c.1920	-shot photograph	8.2x10.8
Glass				
Negatives			738 Photomicrographic	
- Box 571			apparatus. (working on	
to 760	RUBB/738	c.1920	bench). Mid -shot photograph	8.2x10.8
Glass				
Negatives				
- Box 571			739 High speed tensile	
to 760	RUBB/739	c.1920	tester. Close up photograph	8.2x10.8
			740 Tabulation. Properties	
Glass			of vulcanised rubber.	
Negatives			Effects of time of	
- Box 571			vulcanisation and of ageing.	
to 760	RUBB/740	c.1920	(Vulcn.mins.; pt.set 200%).	8.2x10.8
Glass			· · · · · · · · · · · · · · · · · · ·	
Negatives			742 Portrait. H.N.Ridley.	
- Box 571			(W.P.Stewart, Richmond)	
to 760	RUBB/742	c.1920	Close up photograph	8.2x10.8
	TODD/ 142	C.1720	CTOPE OF PHOLOGIAPH	0.2410.0

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Glass				
Negatives			743 Photograph. H.N.Ridley	
- Box 571			and Sir John Twisen. Mid	
to 760	RUBB/743	c.1920	shot photograph	8.2x10.8
Glass	11022, 110	0,1010	747 Cable braiding machine.	0.1110.0
			2	
Negatives			(B & F Carter & Co.,	
- Box 571			Rochdale). Close up	
to 760	RUBB/747	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 571			748 Portrait. Sir Harold	
to 760	RUBB/748	c.1920	Hartley. Close up photograph	8.2x10.8
	RODD/ / 40	C.1920		0.2810.0
			749 Neoprene in the garage	
Glass			and service station. Petrol	
Negatives			hose, gloves, apron and oil	
- Box 571			can for neoprene. Close up	
to 760	RUBB/749	c.1920	photograph	8.2x10.8
			750 Neoprene in the aircraft	
			industry. A coil of ignition	
			cable, engine mountings, oil	
			and water pump gaskets, and	
			a range of sizes of washers,	
Glass			all made from neoprene. The	
Negatives			thin rings at the foot are	
- Box 571			neoprene strip washers for	
to 760	RUBB/750	c.1920	wings. Close up photograph	8.2x10.8
	110227 700	0,1010	751 Neoprene in the textile	0.1110.0
			-	
			industry. A large Saunders	
			diaphragm for textile plant,	
			a range of roller ring	
			washers and (to the left) a	
			piece of neoprene covered	
			wire for viscose silk	
Glass			spinning plant. Below,	
Negatives			neoprene chemically -	
-				
- Box 571		1.0.0.0	resistant carbey caps. Close	
to 760	RUBB/751	c.1920	up photograph	8.2x10.8
Glass			752 Neoprene products for	
Negatives			use in the printing	
- Box 571			industry. Close up	
to 760	RUBB/752	c.1920	photograph	8.2x10.8
	, ,		753 Neoprene in chemical	
			engineering. Bucket,	
			neoprene-lined vessel, U-	
Glass			bend, chemical workers'	
Negatives			gloves, face piece of a gas	
- Box 571			mask and stoppers. Close up	
		c.1920	photograph	8.2x10.8
to 760	RUBB/753	$C_{-} = 9/0$		$0 \cdot (X \mid U \cdot O)$

			755 Flexible non-brittle	
Class				
Glass			"ebonite" made from a	
Negatives			mixture of neoprene and	
- Box 571		1000	natural rubber. Mid -shot	0 0 10 0
to 760	RUBB/755	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 571			756 Coagulated Neoprene	
to 760	RUBB/756	c.1920	latex. Mid -shot photograph	8.2x10.8
Glass				
Negatives				
- Box 571			757 Neoprene hose. Close up	
to 760	RUBB/757	c.1920	photograph	8.2x10.8
Glass			758 Neoprene (left) and	
Negatives			natural rubber after	
- Box 571			subjection to ozone. Close	
to 760	RUBB/758	c.1920	up photograph	8.2x10.8
Glass				
Negatives			759 Neoprene and natural	
- Box 571			rubber after subjection to	
to 760	RUBB/759	c.1920	heat. Close up photograph	8.2x10.8
Glass	11022, 700	0.1020		
Negatives			760 Oil tanker with neoprene	
- Box 571			hose equipment. Mid -shot	
to 760	RUBB/760	c.1920	photograph	8.2x10.8
Glass	ROBB/ / 00	C.1 <i>7</i> 20	761Portrait. Sir William	0.210.0
Negatives			Tilden (1842-1926), the	
- Box 761				
		~ 1020	pioneer of synthetic rubber.	0 0-10 0
to 950	RUBB/761	c.1920	Close up photograph	8.2x10.8
Glass			762 (Photomicrograph)	
Negatives			Neoprene tyre sidewall	
- Box 761		1.0.0.0	(magnified three times) (of.	
to 945	RUBB/762	c.1920	763).	8.2x10.8
Glass			763 (Photomicrograph)	
Negatives			Natural rubber tyre sidewall	
- Box 761			(magnified three times) (of.	
to 945	RUBB/763	c.1920	762).	8.2x10.8
			764 Graph. Percentage	
			increase weight against	
			number of hours in diesel	
			oil at 70 oC. Swelling of	
Glass			natural rubber, butadiene-	
Negatives			acrylic nitrile inter-	
- Box 761			polymer, and neoprene in	
to 945	RUBB/764	c.1920	Diesel oil at 70 oC.	8.2x10.8
			765 Impact strength of hard	
Glass			rubber. Falling weight	
Negatives			testing apparatus (showing	
- Box 761			sections 1 to 16). Close up	
to 945	RUBB/765	c.1920	photograph	8.2x8.2
	1000, 100	0.1720	P.1.0 COYL 4P11	J • 2 4 U • 2

766 Graph. Proportion of	
breaks against impact blow	
per unit cross sectional	
Glass area kg.cm/sq.cm. Impact	
Negatives strength of hard rubber.	
- Box 761 Proportion of breaks under	
to 945 RUBB/766 c.1920 various impact blows.	8.2x8.2
767 Graph. Impact strength	
of hard rubber. Influence o	c
vulcanisation time on impac	t
Glass strength (un-notched test-	
Negatives pieces). Impact strength	
- Box 761 against vulcanisation time	
to 945 RUBB/767 c.1920 in hours at 155 oC.	8.2x8.2
	0.280.2
768 Graph. Impact strength	
of hard rubber. Influence o	
vulcanisation time on impac	t
Glass strength (notched test-	
Negatives pieces). Impact strength	
- Box 761 against vulcanisation time	
	0 0 0 0
to 945 RUBB/768 c.1920 in hours at 155 oC.	8.2x8.2
769 Graph. Impact strength	
of hard rubber. Effect on	
impact strength of	
dimensions of unnotched tes	t
Glass piece (1) Thickness (2)	-
Negatives Width. Impact strength	
- Box 761 against 1) Thickness in mm.	
to 945 RUBB/769 c.1920 and 2) Width in mm.	8.2x8.2
770 Graph. Impact strength	
of hard rubber. Impact	
strength against 1) Depth o	f
	±
notch in mm. and 2) Radius	
Glass of notch in mm. Effect on	
Negatives impact strength. (1) Depth	
- Box 761 of notch. (2) Radius of	
to 945 RUBB/770 c.1920 notch.	8.2x8.2
Glass	
Negatives 771 Petrol hose of thickel	
- Box 761 and motor car. Mid -shot	
	0 0 - 1 0 0
to 945 RUBB/771 c.1920 photograph	8.2x10.8
Glass	
Negatives	
- Box 761 773 Pistol filling nozzle o	f
to 945 RUBB/773 c.1920 thickel. Close up photograp	
Glass	
Negatives	
- Box 761 to 945 RUBB/774 c.1920 thickel. Close up photograp	

				
Glass				
Negatives				
- Box 761			778 Portrait. Close up	
to 945	RUBB/778	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			779 Portrait. Close up	
to 945	RUBB/779	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			780 Portrait. Close up	
to 945	RUBB/780	c.1920	photograph	8.2x10.8
Glass	RUBB/ /00	C.1920	photograph	0.2810.0
Negatives				
- Box 761		1000	781 Portrait. Close up	0 0 1 0 0
to 945	RUBB/781	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			782 Portrait. Close up	
to 945	RUBB/782	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			783 Portrait. Close up	
to 945	RUBB/783	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			784 Portrait. Close up	
to 945	RUBB/784	c.1920	photograph	8.2x10.8
Glass	ICODD/ / 0 I	0.1920		0.2110.0
Negatives				
- Box 761			785 Dortroit Close up	
		- 1000	785 Portrait. Close up	0 0 1 0 0
to 945	RUBB/785	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			786 Portrait. Close up	
to 945	RUBB/786	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			787 Portrait. Close up	
to 945	RUBB/787	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			788 Portrait. Close up	
to 945	RUBB/788	c.1920	photograph	8.2x10.8
Glass	,			
Negatives				
- Box 761			789 Portrait. Close up	
to 945	RUBB/789	c.1920	photograph	8.2x10.8
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r		r	1	,
Glass				
Negatives				
- Box 761			790 Portrait. Close up	
to 945	RUBB/790	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			791 Portrait. Close up	
to 945	RUBB/791	c.1920	=	8.2x10.8
	RUBB//91	C.1920	photograph	0.2X10.0
Glass				
Negatives				
- Box 761			792 Portrait. Close up	
to 945	RUBB/792	c.1920	photograph	8.2x10.8
Glass				
Negatives			793 Portrait. (Swan Watson	
- Box 761			F.R.P.S.) Close up	
to 945	RUBB/793	c.1920	photograph	8.2x10.8
Glass		C.1720		0.2410.0
Negatives				
-				
- Box 761		1000	794 Portrait. Close up	
to 945	RUBB/794	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			795 Portrait.Close up	
to 945	RUBB/795	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			796 Portrait. J.Wilderman.	
to 945	RUBB/796	c.1920		8.2x10.8
	RUDD/190	C.1920	Close up photograph	0.2810.0
Glass				
Negatives				
- Box 761			797 Portrait. Close up	
to 945	RUBB/797	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			798 Portrait. (Harcourt)	
to 945	RUBB/798	c.1920	Close up photograph	8.2x10.8
Glass		C.1720	erope ap photograph	0.2410.0
Negatives				
- Box 761	· _		799 Portrait. Close up	
to 945	RUBB/799	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			800 Portrait. Close up	
to 945	RUBB/800	c.1920	photograph	8.2x10.8
Glass	- ,			
Negatives			801 Portrait. (Blank &	
- Box 761				
		~ 1000	Stoller Photo). Close up	0 010 0
to 945	RUBB/801	c.1920	photograph	8.2x10.8

_		1		
Glass				
Negatives				
- Box 761			802 Portrait. Mr. H. F.	
to 945	RUBB/802	c.1920	Parfitt. Close up photograph	8.2x10.8
Glass				
Negatives				
- Box 761			803 Portrait. Close up	
to 945	RUBB/803	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			804 Portrait. Close up	
to 945	RUBB/804	c.1920	photograph	8.2x10.8
Glass	RUBB/004	C.1920		0.2810.0
Negatives				
- Box 761		1000	805 Portrait. Close up	0 0 1 0 0
to 945	RUBB/805	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			806 Portrait. Close up	
to 945	RUBB/806	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			807 Portrait. Close up	
to 945	RUBB/807	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			808 Portrait. Close up	
to 945	RUBB/808	c.1920	photograph	8.2x10.8
Glass	RODD/ 000	0.1920		0.210.0
Negatives				
- Box 761			200 Dortroit Close un	
		1000	809 Portrait. Close up	0 0 1 0 0
to 945	RUBB/809	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			810 Portrait. Close up	
to 945	RUBB/810	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			811 Portrait. Close up	
to 945	RUBB/811	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			812 Portrait. Close up	
to 945	RUBB/812	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			813 Portrait. Close up	
to 945	RUBB/813	c.1920	photograph	8.2x10.8
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Glass				
Negatives				
- Box 761			814 Portrait. Close up	
to 945	RUBB/814	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			815 Portrait. (signed in the	
to 945	RUBB/815	c.1920	corner). Close up photograph	8.2x10.8
Glass				
Negatives				
- Box 761			816 Portrait. Close up	
to 945	RUBB/816	c.1920	photograph	8.2x10.8
			817 Portrait of A.E. Tanner.	
			(In fair round belly, with	
			eyes severe and beard of	
Glass			formal cut, full of wise	
Negatives			saws and modern instances).	
- Box 761		- 1000	Signed at the bottom. Close	0 010 0
to 945	RUBB/817	c.1920	up photograph	8.2x10.8
Glass				
Negatives - Box 761			010 Destruct Class we	
-B0x /61 to 945	RUBB/818	c.1920	818 Portrait. Close up	8.2x10.8
Glass	RUBB/010	C.1920	photograph	0.2X10.0
Negatives - Box 761			819 Portrait. (Susie Stern	
to 945	RUBB/819	c.1920	Studio). Close up photograph	8.2x10.8
Glass	ROBD/015	C.1520	Studio, ciose up photograph	0.210.0
Negatives				
- Box 761			820 Portrait. Close up	
to 945	RUBB/820	c.1920	photograph	8.2x10.8
Glass	11022, 020			
Negatives				
- Box 761			821 Portrait. Close up	
to 945	RUBB/821	c.1920	photograph	8.2x10.8
Glass	- ,			
Negatives				
- Box 761			822 Portrait. Close up	
to 945	RUBB/822	c.1920	photograph	8.2x10.8
Glass				
Negatives			823 Portrait. H.	
- Box 761			Bressenbrugge, den Haag.	
to 945	RUBB/823	c.1920	Close up photograph	8.2x10.8
Glass				
Negatives			824 Portrait. C.Warner,	
- Box 761			1946. (Signed). Close up	
to 945	RUBB/824	c.1920	photograph	8.2x10.8
Class				
Glass			925 Doutroit Glass	
Negatives - Box 761	00 מסווס/	a 1020	825 Portrait. Close up	8.2x10.8
- BOX /01	RUBB/825	c.1920	photograph	0.ZXIU.8

to 945				
ļ				
Glass				
Negatives				
- Box 761		1	826 Portrait. Close up	
to 945	RUBB/826	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761		1	827 Portrait. Close up	
to 945	RUBB/827	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			828 Portrait. Close up	
to 945	RUBB/828	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761		1.0.0.0	829 Portrait. Bachrach.	
to 945	RUBB/829	c.1920	Close up photograph	8.2x10.8
Glass				
Negatives				
- Box 761			830 Portrait. Close up	
to 945	RUBB/830	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			831 Portrait. Close up	
to 945	RUBB/831	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			832 Portrait. Close up	
to 945	RUBB/832	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			833 Portrait. Close up	
to 945	RUBB/833	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			834 Portrait. Close up	
to 945	RUBB/834	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			835 Portrait. Close up	
to 945	RUBB/835	c.1920	photograph	8.2x10.8
Glass		1	I	
Negatives				
Negatives - Box 761			836 Portrait. Close up	

GlassNegatives837 Portrait. Close up- Box 761837 Portrait. Close upto 945RUBB/837c.1920photograph8.2x1	
- Box 761 837 Portrait. Close up	
to 945 RUBB/837 c.1920 photograph 8.2x1	
	0.8
Glass	
Negatives 838 Portrait. (signed).	
- Box 761 Gertrude and Idi Wyck Gray.	
to 945 RUBB/838 c.1920 Close up photograph 8.2x1	0.8
Glass	
Negatives	
- Box 761 839 Portrait. Close up	
to 945 RUBB/839 c.1920 photograph 8.2x1	0 Q
	0.0
Glass 840 Portrait. (4 R. P. 'des	
Negatives Champs Elysees. Portraits	
- Box 761 Gaston. Lucien Manuel).	• •
to 945 RUBB/840 c.1920 Close up photograph 8.2x1	0.8
Glass	
Negatives	
- Box 761 841 Portrait. Close up	
to 945 RUBB/841 c.1920 photograph 8.2x1	0.8
Glass	
Negatives	
- Box 761 842 Portrait. F. Lion. Close	
to 945 RUBB/842 c.1920 up photograph 8.2x1	08
Glass	0.0
Negatives	
- Box 761 843 Portrait. Close up	
	0 0
	0.0
Glass	
Negatives	
- Box 761 844 Portrait. Close up	
to 945 RUBB/844 c.1920 photograph 8.2x1	0.8
Glass	
Negatives	
- Box 761 845 Portrait. Joseph	
to 945 RUBB/845 c.1920 Forster. Close up photograph 8.2x1	0.8
Glass	
Negatives	
- Box 761 846 Portrait. Close up	
to 945 RUBB/846 c.1920 photograph 8.2x1	0.8
Glass	<u></u>
Negatives	
±	0 0
to 945 RUBB/847 c.1920 photograph 8.2x1	0.8
Glass	
Negatives	
- Box 761 848 Portrait. Close up to 945 RUBB/848 c.1920 photograph 8.2x1	

Glass				
Negatives			849 Portrait. G. Le Maistre.	
- Box 761			C.B.E. F.C.G.I. Close up	
to 945	RUBB/849	c.1920	-	8.2x10.8
Glass	RUDD/049	C.1920	photograph	0.2X10.0
Negatives				
- Box 761		1000	850 Portrait. Close up	0 0 1 0 0
to 945	RUBB/850	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			851 Portrait. Close up	
to 945	RUBB/851	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			852 Portrait. Close up	
to 945	RUBB/852	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			853 Portrait. Close up	
to 945	RUBB/853	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			854 Portrait. Close up	
to 945	RUBB/854	c.1920	photograph	8.2x10.8
Glass	RODD/004	C.1 <i>5</i> 20		0.210.0
Negatives				
- Box 761			QEE Dertrait Class up	
		~ 1020	855 Portrait. Close up	0 010 0
to 945	RUBB/855	c.1920	photograph	8.2x10.8
Glass				
Negatives			856 Portrait. (Graveley &	
- Box 761			Moore, Charleston, W. VA.).	
to 945	RUBB/856	c.1920	Close up photograph	8.2x10.8
Glass				
Negatives				
- Box 761			857 Portrait. Close up	
to 945	RUBB/857	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			858 Portrait. Close up	
to 945	RUBB/858	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			859 Portrait. Close up	
to 945	RUBB/859	c.1920	photograph	8.2x10.8
Glass	,,		T 00 3 T 0 5	
Negatives				
- Box 761			860 Portrait. Close up	
to 945	RUBB/860	c.1920	photograph	8.2x10.8
LU 74J	1000/000	C.1920	μιστογταμι	U.ZXIU.0

Glass				
Negatives				
- Box 761			961 Doutroit Close up	
		~ 1020	861 Portrait. Close up	8.2x10.8
to 945	RUBB/861	c.1920	photograph	0.2X10.0
Glass				
Negatives				
- Box 761	(862 Portrait. Close up	
to 945	RUBB/862	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			863 Portrait. Close up	
to 945	RUBB/863	c.1920	photograph	8.2x10.8
Glass				
Negatives			864 Portrait. (Bachrach.	
- Box 761			Proof for publication).	
to 945	RUBB/864	c.1920	Close up photograph	8.2x10.8
Glass				
Negatives				
- Box 761			865 Portrait. Close up	
to 945	RUBB/865	c.1920	photograph	8.2x10.8
Glass	ICODD/000	0.1920		0.2810.0
Negatives				
- Box 761			966 Domtroit Close up	
		~ 1020	866 Portrait. Close up	0 0-10 0
to 945	RUBB/866	c.1920	photograph	8.2x10.8
Glass				
Negatives			867 Portrait. C.T. Mabey,	
- Box 761	(Esq. Vice-President, 1933-	
to 945	RUBB/867	c.1920	1934. Close up photograph	8.2x10.8
Glass				
Negatives				
- Box 761			868 Portrait. Close up	
to 945	RUBB/868	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			869 Portrait. Close up	
to 945	RUBB/869	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			870 Portrait. Close up	
to 945	RUBB/870	c.1920	photograph	8.2x10.8
Glass	1.000,010	0.1920		0.2410.0
Negatives				
– Box 761			971 Dortrait Class un	
	1 בט/ ממוזם	a 1000	871 Portrait. Close up	0 2.10 0
to 945	RUBB/871	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761		1000	872 Portrait. Close up	
to 945	RUBB/872	c.1920	photograph	8.2x10.8

_		1		
Glass				
Negatives				
- Box 761			873 Portrait. Close up	
to 945	RUBB/873	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			874 Portrait. Close up	
to 945	RUBB/874	c.1920	photograph	8.2x10.8
Glass	ICODD/0/1	0.1920		0.2810.0
Negatives				
- Box 761			075 Doutroit Close un	
		1000	875 Portrait. Close up	0 0 1 0 0
to 945	RUBB/875	c.1920	photograph	8.2x10.8
Glass			876 Portrait. 31 Kingly St.,	
Negatives			London W1. Portrait by	
- Box 761			"Rotrogravure". Close up	
to 945	RUBB/876	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			877 Portrait. Close up	
to 945	RUBB/877	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			878 Portrait. Close up	
		c.1920		8.2x10.8
to 945	RUBB/878	C.1920	photograph	8.2X10.8
Glass				
Negatives				
- Box 761			879 Portrait. Close up	
to 945	RUBB/879	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			880 Portrait. Close up	
to 945	RUBB/880	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			881 Portrait. Close up	
to 945	RUBB/881	c.1920	photograph	8.2x10.8
Glass	1022,001	3.1920	Luccoltabu	
Negatives				
- Box 761			882 Portrait. Close up	
		~ 1000	_	0 010 0
to 945	RUBB/882	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			883 Portrait. Close up	
to 945	RUBB/883	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			884 Portrait. Close up	
to 945	RUBB/884	c.1920	photograph	8.2x10.8

Glass				
Negatives				
- Box 761			885 Portrait. Close up	
to 945	RUBB/885	c.1920	_	8.2x10.8
Glass	RUBB/00J	C.1920	photograph	0.2810.0
Negatives				
- Box 761		1.0.0.0	886 Portrait. Close up	
to 945	RUBB/886	c.1920	photograph	8.2x10.8
Glass				
Negatives			887 Photomicrograph. (layers	
- Box 761			presenting different	
to 945	RUBB/887	c.1920	textures).	8.2x10.8
Glass				
Negatives			888 Old town photograph (in	
- Box 761			the forest). Mid -shot	
to 945	RUBB/888	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			889 Curved tree in the	
to 945	RUBB/889	c.1920	jungle. Close up photograph	8.2x10.8
Glass				
Negatives			890 Rubber processing plant	
- Box 761			(showing tanks). Mid -shot	
to 945	RUBB/890	c.1920	photograph	8.2x10.8
Glass	I(ODD) O O O	C.1920	891 Tree plantation showing	0.210.0
Negatives			rubber tree height (young	
- Box 761			trees) (worker by side of	
to 945	RUBB/891	c.1920	tree). Mid -shot photograph	8.2x10.8
	RUDD/091	C.1920	cree). Mid -shot photograph	0.2X10.0
Glass				
Negatives				
- Box 761		1.0.0.0	892 Storage shed. Mid -shot	
to 945	RUBB/892	c.1920	photograph	8.2x10.8
Glass				
Negatives			893 Rubber plantation.	
- Box 761			(Terracing). Mid -shot	
to 945	RUBB/893	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			894 The jungle. Mid -shot	
to 945	RUBB/894	c.1920	photograph	8.2x10.8
Glass				
Negatives			895 Nurseries (with	
- Box 761			seedlings). Miod -shot	
to 945	RUBB/895	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			896 Interior of shed. Mid -	
to 945	RUBB/896	c.1920	shot photograph	8.2x10.8
20 775	100001000	C.IJ20	Shot photograph	0.2A10.0

Glass				
Negatives			897 Rubber factory	
- Box 761			(exterior). Mid -shot	
to 945	RUBB/897	c.1920	photograph	8.2x10.8
Glass	RUBB/09/	C.1920		0.2810.0
Negatives			898 Mature rubber trees on	
- Box 761		1000	flat land. Mid -shot	0 0 1 0 0
to 945	RUBB/898	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			899 Portrait. Close up	
to 945	RUBB/899	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			900 Portrait. Close up	
to 945	RUBB/900	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			901 Portrait. Close up	
to 945	RUBB/901	c.1920	photograph	8.2x10.8
Glass	110227 3 0 1	0.1920		0.21110.0
Negatives				
- Box 761			902 Portrait. Close up	
to 945	RUBB/902	c.1920	-	8.2x10.8
Glass	RUDD/ 902	C.1920	photograph	0.2810.0
Negatives				
- Box 761		1000	903 Portrait. Close up	0 0 1 0 0
to 945	RUBB/903	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			904 Portrait. Close up	
to 945	RUBB/904	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			905 Portrait. Close up	
to 945	RUBB/905	c.1920	photograph	8.2x10.8
Glass				
Negatives			906 Portrait. Military. (Sun	
- Box 761			Studio K.L.) Close up	
to 945	RUBB/906	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			907 Portrait. Close up	
to 945	RUBB/907	c.1920	photograph,	8.2x10.8
Glass		C+1720	Priocographi	5.2210.0
Negatives				
- Box 761			908 Portrait. (signed).	
to 945	RUBB/908	c.1920	-	8.2x10.8
10 940	LUDD/ 200	0.1920	Close up photograph	U.ZXIU.0

Negatives - Box 761909 Portrait. Close up photograph9.2x10.8Glass Negatives - Box 761910 Portrait. Close up photograph8.2x10.8Glass Negatives - Box 761910 Portrait. Close up photograph8.2x10.8Glass Negatives - Box 761911 Portrait. Close up photograph8.2x10.8Glass Negatives - Box 761912 Portrait. (Valentine).Close up photograph8.2x10.8Glass Negatives - Box 761912 Portrait. (Valentine).Close up photograph8.2x10.8Glass Negatives - Box 761913 Portrait. Close up photograph8.2x10.8Glass Negatives - Box 761913 Portrait. Close up photograph8.2x10.8Glass Negatives - Box 761 to 945913 Portrait. Close up photograph8.2x10.8Glass Negatives - Box 761 to 945914 Portrait. Close up photograph8.2x10.8Glass Negatives - Box 761 to 945915 Portrait. Close up photograph8.2x10.8Glass Negatives - Box 761 to 945916 Portrait. Close up photograph8.2x10.8Glass Negatives - Box 761 to 945917 Portrait. Close up photograph8.2x10.8Glass Negatives - Box 761 to 945918 Portrait. Close up photograph8.2x10.8Glass Negatives - Box 761 to 945918 Portrait. Close up photograph8.2x10.8Glass Negatives - Box 761 to 945919 Portrait. Close up photograph8.2x10.8Glass Negatives - Box 761 to 945919 Portrait. Close up photograph<	Glass				
- Box 761 909 Portrait. Close up 8.2x10.8 to 945 RUBB/909 c.1920 photograph 8.2x10.8 Class 910 Portrait. Close up 2.2x10.8 Negatives 910 Portrait. Close up 8.2x10.8 Box 761 911 Portrait. Close up 8.2x10.8 Megatives 911 Portrait. Close up 8.2x10.8 Class 911 Portrait. Close up 8.2x10.8 Megatives 912 Portrait. 8.2x10.8 Class 912 Portrait. 8.2x10.8 Negatives 912 Portrait. 8.2x10.8 Slass 913 Portrait. Close up 8.2x10.8 Megatives 913 Portrait. Close up 8.2x10.8 Slass 914 Portrait. Close up 8.2x10.8 Megatives 914 Portrait. Close up 8.2x10.8 Slass 915 Portrait. Close up 8.2x10.8 Megatives 915 Portrait. Close up 8.2x10.8 Slass 916 Portrait. Close up 8.2x10.8 Megatives 916 Portrait. Close up 8.2x10.8 Slass 917 Po					
to 945 RUBB/909 c.1920 photograph 8.2x10.8 Glass 910 Portrait. Close up 910 Portrait. Close up 8.2x10.8 respectives 910 Portrait. Close up 8.2x10.8 respectives 911 Portrait. Close up 8.2x10.8 respectives 911 Portrait. Close up 8.2x10.8 respectives 912 Portrait. 8.2x10.8 respectives 912 Portrait. 8.2x10.8 Negatives 912 Portrait. 8.2x10.8 respectives 913 Portrait. Close up 8.2x10.8 respectives 913 Portrait. Close up 8.2x10.8 respectives 914 Portrait. Close up 8.2x10.8 respectives 914 Portrait. Close up 8.2x10.8 respectives 914 Portrait. Close up 8.2x10.8 respectives 915 Portrait. Close up 8.2x10.8 respectives 916 Portrait. Close up 8.2x10.8 respectives 916 Portrait. Close up 8.2x10.8 respectives 916 Portrait. Close up 8.2x10.8 respectives 918 Portrait. Clos	-			909 Portrait Close up	
Glass Negatives - Box 761 to 945RUBB/910c.1920photograph8.2x10.8Glass Negatives - Box 761 to 945910 Portrait. Close up photograph8.2x10.8Glass Negatives - Box 761 to 945911 Portrait. Close up photograph8.2x10.8Glass Negatives - Box 761 to 945912 Portrait. (Valentine).Close up photograph8.2x10.8Glass Negatives - Box 761 to 945913 Portrait. Close up photograph8.2x10.8Glass Negatives - Box 761 to 945913 Portrait. Close up photograph8.2x10.8Glass Negatives - Box 761 to 945913 Portrait. Close up photograph8.2x10.8Glass Negatives - Box 761 to 945914 Portrait. Close up photograph8.2x10.8Glass Negatives - Box 761 to 945915 Portrait. Close up photograph8.2x10.8Glass Negatives - Box 761 to 945916 Portrait. Close up photograph8.2x10.8Glass Negatives - Box 761 to 945917 Portrait. Close up photograph8.2x10.8Glass Negatives - Box 761 to 945918 Portrait. Close up photograph8.2x10.8Glass Negatives - Box 761 to 945919 Portrait. Close up photograph8.2x10.8Glass <td></td> <td>RIIBB/909</td> <td>c 1920</td> <td>-</td> <td>8 2 - 10 8</td>		RIIBB/909	c 1920	-	8 2 - 10 8
Negatives - Box 761 to 945 RUBB/910 c.1920 photograph Bubb/911 c.1920 photograph comparison Solutions RUBB/911 c.1920 photograph Solutions Photograph Solutions Photograph Solutions Photograph Solutions Photograph Solutions		ROBB/ 909	0.1920		0.2810.0
- Box 761 910 Portrait. Close up 8.2x10.8 class 911 Portrait. Close up 8.2x10.8 Negatives 911 Portrait. Close up 8.2x10.8 - Box 761 911 Portrait. Close up 8.2x10.8 Glass 911 Portrait. Close up 8.2x10.8 Glass 912 Portrait. 8.2x10.8 Stars 912 Portrait. 910 - Box 761 (Valentine).Close up 8.2x10.8 Class 912 Portrait. 910 Negatives 913 Portrait. Close up 8.2x10.8 Glass 913 Portrait. Close up 8.2x10.8 Slass 914 Portrait. Close up 8.2x10.8 Slass 914 Portrait. Close up 8.2x10.8 Slass 914 Portrait. Close up 8.2x10.8 Slass 915 Portrait. Close up 8.2x10.8 Slass 916 Portrait. Close up 8.2x10.8 Slass 916 Portrait. Close up 8.2x10.8 Slass 916 Portrait. Close up 8.2x10.8 Slass 917 Portrait. Close up 918 Portrait. Close up <td></td> <td></td> <td></td> <td></td> <td></td>					
to 945 RUBB/910 c.1920 photograph 8.2x10.8 Glass 911 Portrait. Close up 8.2x10.8 Glass 912 Portrait. Close up 8.2x10.8 Glass 912 Portrait. 913 - Box 761 (Valentine).Close up 8.2x10.8 Class 912 Portrait. 914 - Box 761 (Valentine).Close up 8.2x10.8 Class 913 Portrait. Close up 8.2x10.8 Slass 913 Portrait. Close up 8.2x10.8 Glass 913 Portrait. Close up 8.2x10.8 Glass 913 Portrait. Close up 8.2x10.8 Glass 914 Portrait. Close up 8.2x10.8 Glass 914 Portrait. Close up 8.2x10.8 Glass 915 Portrait. Close up 8.2x10.8 Glass 916 Portrait. Close up 8.2x10.8 Glass 916 Portrait. Close up 8.2x10.8 Glass 917 <t< td=""><td>-</td><td></td><td></td><td>010 Domtroit Close up</td><td></td></t<>	-			010 Domtroit Close up	
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- Box 761 to 945 RUBB/919 c.1920 919 Portrait. Close up photograph 8.2x10.8 Glass Negatives - Box 761 920 Portrait. Close up					
to 945RUBB/919c.1920photograph8.2x10.8GlassRubber of the second	-				
Glass Negatives - Box 761 920 Portrait. Close up				-	
Negatives - Box 761 920 Portrait. Close up	to 945	RUBB/919	c.1920	photograph	8.2x10.8
- Box 761 920 Portrait. Close up	Glass				
-	Negatives				
10.210	- Box 761			920 Portrait. Close up	
	to 945	RUBB/920	c.1920	photograph	8.2x10.8

-				
Glass				
Negatives				
- Box 761			921 Portrait. Close up	
to 945	RUBB/921	c.1920	photograph	8.2x10.8
Glass				
Negatives			922 Portrait. (signed).	
- Box 761			Braulaud. Close up	
to 945	RUBB/922	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			923 Portrait. Close up	
to 945	RUBB/923	c.1920	photograph	8.2x10.8
	RUDD/ 923	C.1920		0.2810.0
Glass				
Negatives				
- Box 761		1.0.0.0	924 Portrait. Close up	
to 945	RUBB/924	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			925 Portrait. Close up	
to 945	RUBB/925	c.1920	photograph	8.2x10.8
Glass				
Negatives			926 Portrait. Foreign	
- Box 761			military (ceremonial). Close	
to 945	RUBB/926	c.1920	up photograph	8.2x10.8
Glass	10000, 920	0.1920		0.21110.0
Negatives				
- Box 761			927 Portrait. Close up	
to 945	RUBB/927	c.1920	_	8.2x10.8
	NUDD/ 32/	C.1920	photograph	0.2810.0
Glass				
Negatives				
- Box 761		1.000	928 Portrait. Close up	
to 945	RUBB/928	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			929 Portrait. Close up	
to 945	RUBB/929	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			930 Portrait. Close up	
to 945	RUBB/930	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			931 Portrait. Close up	
to 945	RUBB/931	c.1920	photograph	8.2x10.8
Glass	10001001	C.1920	Puocograph	0.2410.0
Negatives				
- Box 761		1.000	932 Portrait. Close up	0 0 1 0 0
to 945	RUBB/932	c.1920	photograph	8.2x10.8

Glass				
Negatives				
- Box 761			933 Portrait. Close up	
to 945	RUBB/933	c.1920	photograph	8.2x10.8
Glass	110227 300	0.1920		0.1110.0
Negatives				
- Box 761			934 Portrait. Close up	
to 945	RUBB/934	c.1920	photograph	8.2x10.8
Glass	KOBB/ 954	C.1920		0.2810.0
Negatives				
- Box 761			025 Dortroit Close up	
		~ 1020	935 Portrait. Close up	0 0-10 0
to 945	RUBB/935	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761	(936 Portrait. Close up	
to 945	RUBB/936	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			937 Portrait. Close up	
to 945	RUBB/937	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 761			938 Portrait. Close up	
to 945	RUBB/938	c.1920	photograph	8.2x10.8
Glass				
Negatives			939 Portrait. (signed).	
- Box 761			Walton Clements, Reading.	
to 945	RUBB/939	c.1920	Close up photograph	8.2x10.8
Glass				
Negatives				
- Box 761			940 Portrait. Close up	
to 945	RUBB/940	c.1920	photograph	8.2x10.8
Glass	10000/010	0.1020	Procograph	0.2110.0
Negatives				
- Box 761			941 Portrait. Close up	
= B0x / 61 to 945	RUBB/941	c.1920	photograph	8.2x10.8
	NUDD/ 341	C.1920	μιοτογταμι	0.2X10.0
Glass				
Negatives				
- Box 761		1.000	942 Portrait. Close up	
to 945	RUBB/942	c.1920	photograph	8.2x10.8
Glass				
Negatives			943 Portrait. (Blank &	
- Box 761			Stoller photo). Close up	
to 945	RUBB/943	c.1920	photograph	8.2x10.8
Glass				
Negatives			944 Portrait. (signed on	
- Box 761			side of jacket). Close up	
to 945	RUBB/944	c.1920	photograph	8.2x10.8
		L		

Glass				
Negatives				
- Box 761			945 Portrait. Close up	
to 945	RUBB/945	c.1920	photograph	8.2x10.8
Glass	100007,910	0.1920		0.2110.0
Negatives				
- Box 946			946 Portrait. Close up	
to 1155	RUBB/946	c.1920	photograph	8.2x10.8
Glass	RODD/ 940	0.1920		0.2810.0
Negatives				
- Box 946			947 Portrait. Close up	
to 1155	RUBB/947	c.1920	photograph	8.2x10.8
Glass	KUBB/ 947	C.1920		0.2810.0
Negatives				
- Box 946			948 Portrait. Close up	
to 1155		c.1920	-	8.2x10.8
	RUBB/948	C.1920	photograph	0.2X10.0
Glass			040 Destucit Messey (Wier	
Negatives - Box 946			949 Portrait. Mayer (Wien	
		~ 1020	Vis-aVis der Oper). Close up	0 010 0
to 1155	RUBB/949	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 946		1000	950 Portrait. Close up	0 0 1 0 0
to 1155	RUBB/950	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 946		1000	951 Portrait. Close up	0 0 1 0 0
to 1155	RUBB/951	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 946		1.0.0.0	952 Portrait. Close up	0 0 1 0 0
to 1155	RUBB/952	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 946		1.0.0.0	953 Portrait. Close up	0 0 1 0 0
to 1155	RUBB/953	c.1920	photograph	8.2x10.8
Glass			954 Portrait. (4 R.P.des	
Negatives			Champs Elysees. Portraits	
- Box 946		1.000	G.L.Manuel freres). Close up	
to 1155	RUBB/954	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 946		1.000	955 Portrait. Close up	
to 1155	RUBB/955	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 946	· ·		956 Portrait. Close up	
to 1155	RUBB/956	c.1920	photograph	8.2x10.8

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Glass				
Negatives				
- Box 946		1000	957 Portrait. Close up	0 0 1 0 0
to 1155	RUBB/957	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 946			958 Portrait. (signed).	
to 1155	RUBB/958	c.1920	Cooke. Close up photograph	8.2x10.8
Glass				
Negatives				
- Box 946			959 Portrait. Close up	
to 1155	RUBB/959	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 946			960 Portrait. Close up	
to 1155	RUBB/960	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 946			961 Portrait. Close up	
to 1155	RUBB/961	c.1920	photograph	8.2x10.8
Glass			I	
Negatives				
- Box 946			962 Portrait. Close up	
to 1155	RUBB/962	c.1920	photograph	8.2x10.8
Glass	ROBB/ JOZ	C.1920		0.210.0
Negatives				
- Box 946			062 Dortroit (fomolo) Close	
to 1155		c.1920	963 Portrait. (female). Close	8.2x10.8
	RUBB/963	C.1920	up photograph	0.2X10.0
Glass				
Negatives				
- Box 946	10.01		964 Portrait. Close up	
to 1155	RUBB/964	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 946			965 Portrait. Close up	
to 1155	RUBB/965	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 946			966 Portrait. Close up	
to 1155	RUBB/966	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box 946			967 Portrait. Close up	
to 1155	RUBB/967	c.1920	photograph	8.2x10.8
Glass			968 Graph. Effect of speed	
Negatives			on tyre wear. Milimeters per	
- Box 946			100 miles against miles per	
to 1155	RUBB/968	c.1920	hour.	8.2x10.8
CO TIJJ	1000 /000	C.1920	IIUUL .	U. ZXIU. 0

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Glass			969 Graph. Coefficient of	
Negatives			friction against journal	
- Box 946			speed-R.P.M. (Plain rubber	
to 1155	RUBB/969	c.1920	bush, Bronze bush).	8.2x10.8
Glass				
Negatives			970 Diagram. Rubber	
- Box 946			mountings. (A) In	
		1000		0 0 1 0 0
to 1155	RUBB/970	c.1920	compression, (B) in shear.	8.2x10.8
Glass				
Negatives				
- Box 946			971 Diagram. Cross section	
to 1155	RUBB/971	c.1920	of fluted rubber bearing.	8.2x10.8
			972 Graph. Rubber stress-	
			strain curves. (1. Rubber-	
Class				
Glass			sulphur, 2. Do+ Accelerator,	
Negatives			3.Tyre tread, 4. Soling).	
- Box 946			Elongation % against L.b.	
to 1155	RUBB/972	c.1920	per sq. inch.	8.2x10.8
			973 Rubber processing plant	
			(interior). Hollings &	
Glass			Guests, Birmingham. (S.H.	
Negatives			Fry, 5, Highbury Grove,	
- Box 946			London N5) Mid-shot	
to 1155	RUBB/973	c.1920	photograph	8.2x8.2
Glass				
Negatives				
- Box 946			973 Tanks. Rubber processing	
to 1155	RUBB/974	c.1920	plant. Mid -shot photograph	8.2x10.8
	110227 07 1	0,1010	975 James Lyne Hancock Ltd.	
			(On this site the rubber	
			industry was created and	
			founded by Thomas Hancock in	
			1820. Rubber manufacturer.	
Glass			James Lyne Hancock the	
Negatives			oldest vulcanised rubber	
- Box 946			works in the world). Mid -	
to 1155	RUBB/975	c.1920	shot photograph	8.2x10.8
Glass		C.1720		5.2710.0
Negatives				
- Box 946			976 Rubber equipment. Close	
to 1155	RUBB/976	c.1920	up photograph	8.2x10.8
			981 Graph. Elongation %	
Glass			against stress, lb/sq.in.	
Negatives			(1. China clay, 2. Wood	
- Box 946			flour, 3. Wood wool, 4.	
	0.01 מסוזס	a 1020		0 2++10 0
to 1155	RUBB/981	c.1920	Cotton linterns).	8.2x10.8
Glass				
Negatives				
- Box 946				
to 1155	RUBB/982	c.1920	982 Diagram. (2 items).	8.2x10.8
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			983 Table 1. (Property:	
			Tensile strength,	
Glass			Elongation, Modulus at 300%	
Negatives			E, hardness; Peat Black,	
- Box 946			Soft Black, Reinforcing	
to 1155	RUBB/983	c.1920	Black).	8.2x10.8
			984 Comparison of Extenders	
Glass			I. (Reclaim Mixing). Mixing	
Negatives			contains: Rubber, 25; W.T.	
- Box 946	1001		Reclaim, 75; Extender, 25;	
to 1155	RUBB/984	c.1920	Whiting, 120.	8.2x12
			986 Comparison of Extenders	
Glass			I. (cont.) (Reclaim Mixing).	
Negatives			Extender and Modulus	
- Box 946			(lb/sq.in) at 300%	
to 1155	RUBB/986	c.1920	Elongation.	8.2x8.2
Glass	,		987 Comparison of Extenders	
Negatives			I. (cont.) (Reclaim	
- Box 946			Mixing).(B.S. Hardness No.0-	
		~ 1020	-	7 50 0
to 1155	RUBB/987	c.1920	80)	7.5x8.2
			988 Comparison of Extenders	
			II. (Rubber Mixing).	
			Extenders and Tensile	
			strength (lb/sq.in). (Full	
			lines).B.S.Hardness No.	
Glass			(Hatched lines). Mixing	
Negatives			contained: Rubber, 75;	
- Box 946			Extender, 25; Whiting, 150;	
to 1155	RUBB/988	c.1920	etc.	6.5x8.2
0 1100	RODD/ JOO	0.1920	990 Variation of Extender	0.540.2
			Concentration HIBAD No.3 in	
			a cheap mechanical mixing.	
			(China clay 70; Whiting,	
			75). Property Tensile	
			strength, Elongation at	
Glass			break, Modulus at 300%	
Negatives			elongation and Hardness) and	
- Box 946			Parts of Extender	
to 1155	RUBB/990	c.1920	(lb/sq.in.).	6.5x8.2
	1.000, 550	0.1920	991 Perbunan (Stanco) with	····
			Extenders in a tyre-tread	
			mixing (13 parts of	
			extenders). Property	
			(Tensile strength,	
Glass			Elongation at break, Modulus	
Negatives			at 300% elongation and	
- Box 946			Hardness) and Extender	
to 1155	RUBB/991	c.1920	(lb/sq.in.).	7.3x8.2
	, , , , , , ,	0.1000	(, ~_],, , .	

	<u> </u>			
Glass				
Negatives				
- Box 946			999 Map. United States key	
to 1155	RUBB/999	c.1920	of plants.	8.2x10.8
			1000 Graph. Thousands of	
			tons against months.	
Glass			Requirements. (New Supply	
Negatives			curve: Production + Import).	
- Box 946			Stocks graph (curve: Minimum	
to 1155	RUBB/1000	c.1920	Working Inventory).	8.2x10.8
Glass				
Negatives			1002 Rubber plantation.	
- Box 946			Worker on ground. Mid -shot	
to 1155	RUBB/1002	c 1920	photograph	8.2x8.2
Glass	1(0DD/1002	0.1920		0.240.2
Negatives			1003 Rubber conservatory	
-			-	
- Box 946		- 1000	(growing plants). Close up	
to 1155	RUBB/1003	c.1920	photograph	8.2x8.2
			1005 Rubber estates.	
			Photographs A and B. A:	
			Station 2, Quadrats 5 and 6;	
Glass			foot-slope of Sierra	
Negatives			Zuluaga. B: Station 3,	
- Box 946			Quadrat 1; near Cedros. A	
to 1155	RUBB/1005	c.1920	good stand of mature plants.	8.2x10.5
Glass			1006 Caopas specimen. An	
Negatives			exceptionally tall (130 cm)	
- Box 946			individual. Weight: 9.4 lbs.	
to 1155	RUBB/1006	c.1920	(Scale: 0-30 cm).	8.2x10.8
Glass				
Negatives			1007 Fig.11. The carbide	
- Box 946			plant at Schkopau. Mid -shot	
to 1155	RUBB/1007	c.1920	photograph	8.2X10.8
Glass	1.000/100/	C•1720	Photograph	0.27710.0
Negatives			1000 Fig 15 Exactioning	
-			1008 Fig.15. Fractioning	
- Box 946		~ 1000	Tower with re-boiler. Mid -	0 010 C
to 1155	RUBB/1008	c.1920	shot photograph	8.0x10.6
Glass				
Negatives			1009 Fig.17. A modern	
- Box 946	· · ·		cracking unit. Mid -shot	
to 1155	RUBB/1009	c.1920	photograph	8.0x10.6
Glass			1010 Fig.18. Pilot Plant	
Negatives			converting Butane into	
- Box 946			Butadiene. Mid -shot	
to 1155	RUBB/1010	c.1920	photograph	8.0x10.6
Glass				
Negatives			1011 Fig.30. Part of the	
- Box 946			Buna Plant at Schkopau. Mid	
to 1155	RUBB/1011	c.1920	-shot photograph	8.0x10.6
	, ··· = = =	- · •		

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			1013 Work of selection and	
			isolation. Spence field	
			planted with different	
			varieties, whose range in	
			rubber runs from 8 to 20% of	
			the dry weight of the plants	
			(top picture). Arguella	
			field comprising 100 acres	
Glass			of guayule, planted in 1930	
Negatives			in check rows and	
- Box 946			photographed August 9, 1941	
to 1155	ר 1 ∩ 1 2 חתוזת /	c.1920		8.2x10.8
10 1155	RUBB/1013	C.1920	(bottom picture)	0.2X10.0
			1014 New synthetic rubber	
			plant operated by Firestone.	
			Exterior view of one portion	
			of the new synthetic rubber	
			plant. This plant built and	
			operated by Firestone was	
			the first Defence Plant	
a 1				
Glass			Corporation factory in the	
Negatives			United States to produce	
- Box 946			synthetic rubber. Mid -shot	
to 1155	RUBB/1014	c.1920	photograph	8.2x10.8
			1015 Page twenty-three.	
			Graph of speed and its	
			relation to the rate of tyre	
			wear (Wear in mm/1000 miles	
			against speed (m.p.h.) and	
			photomicrograph (The effect	
			of speed: the tyre on the	
			left driven at an average	
			speed of 80 m.p.h. has run	
Glass			only one-tenth of the	
Negatives			mileage of the other tyre	
-				
- Box 946		1000	used at normal touring	0 0 1 0 0
to 1155	RUBB/1015	c.1920	speeds.	8.2x10.8
Glass				
Negatives			1019 Film negative. Workers	
- Box 946			in the fields. Mid -shot	
to 1155	RUBB/1019	c.1920	photograph	7.4x10.4
Glass			1020 Film negative. Workers	
Negatives			building the "Shada" for	
- Box 946				
		- 1000	rubber storage. Mid -shot	
to 1155	RUBB/1020	c.1920	photograph	7.4x10.4
Glass				
Negatives			1021 Film negative. Draining	
- Box 946			and holing. Mid -shot	
to 1155	RUBB/1021	c.1920	photograph	7.2x10.4
L		1		

Class			1000 Tilm negetine	
Glass			1022 Film negative.	
Negatives			Nurseries (young rubber	
- Box 946			plants). Mid -shot	
to 1155	RUBB/1022	c.1920	photograph	7.4x10.4
			1023 Commerce Weekly (United	
			States of America Department	
Glass			of Commerce) September 19,	
Negatives			1942; Vol. VIII, No.12.	
- Box 946			Using old rails instead of	
to 1155	RUBB/1023	c 1920	new tyres.	8.2x10.8
00 1100	10000/1020	0.1920	1025 The Sphere. Pictures	0.2810.0
			-	
			from the West African Battle	
			Zones. Rubber being passed	
			through a hand-operated	
			rolling machine which	
			converts it into a thin	
			sheet bearing a ribbed	
			pattern. The dense forests	
			of Ashanti, in the Gold	
			Coast, have become an	
			important factor in the	
			effort to replace rubber	
			supplies lost to the Allied	
			Nations when the Japanese	
			captured Malaya and the	
			Dutch East Indies. While all	
			the resources of science are	
			being harnessed to this task	
			in British and American	
			factories, Africans tappers	
			using their traditional	
			primitive methods are making	
			a valuable contribution.	
			Wild rubber trees are	
			scattered over an area of	
			about 12000 square miles in	
			Ashanti. There are seldom	
			more than three to four	
			trees to the acre, and the	
Glass			tappers have to hack their	
Negatives			way through thick	
- Box 946			undergrowth to reach the	
to 1155	RUBB/1025	c.1920	creeper-festooned trees.	8.2x10.8
			1026 Graph. Effect of tyre	
Glass			tread crumb on tensile	
Negatives			strength. (Tensile strength	
- Box 946			lbs/in2 against Volume per	
to 1155	RUBB/1026	c.1920	cent of new rubber in mix).	8.2x10.8
LO TIDO	NUDD/ TUZO	C.1920	Cent of new tubbet IN NIX).	0.2X10.0

1027 Graph. Effects of	
various diluents on tensile	
strength. (Tread crumb,	
Glass Reclaim, Hibad extender).	
Negatives Tensile strength in lbs/in2	
- Box 946 against Volume % of new	
	.2x10.8
1028 Bar chart. Effect of	
tyre tread crumb (100 parts	
per 100 parts original	
rubber hydrocarbon) on B.S.	
Glass hardness number. (With and	
Negatives without crumb) (B.S.	
- Box 946 Hardness number and Hardness	0 1 0 0
	.2x10.8
1029 Bar chart. Effect of	
extra sulphur and	
accelerator on hardness of	
crumb mixings. (tread mix -	
new rubber-, tread mix -plus	
Glass vibad extender-, reclaim	
Negatives mix) (With and without crumb	
- Box 946 and B.S. Hardness number	
to 1155 RUBB/1029 c.1920 relative) 8	.2x10.8
1030 Table. Tyre tread mixes	
(Based on 100 parts of new	
rubber). Accelerator:	
Optimum cure, Tensile	
strength, Breaking	
elongation per cent, Modulus	
Glass at 300% elongation,	
Negatives Permanent set per cent, B.S.	
- Box 946 Hardness number and tear	
	.2x10.8
1031 Photomicrograph. (3	0.2X10.0
slides). 1) Zinc Oxide (50),	
Glass French Chalk (45) and Crumb;	
Negatives 2) Zinc Oxide (60) and	
- Box 946 Crumb; 3) Pure Gum and	0 1 0 0
	.2x10.8
1032 Table. Properties of	
mixes made from tyre tread	
crumb without new rubber or	
reclaim. (Tensile strength;	
Breaking elongation %;	
Modulus at 300% elongation;	
Glass B.S. Hardness number;	
Negatives Permanent set after 200%	
- Box 946 elongation; Tear strength;	
	.2x10.8

			1022 5 4	[]
			1033 Bottom view of	
			reactors. (On this and the	
			following page is shown a	
			group of additional	
			photographs of unusual views	
			of the synthetic rubber	
			operation of the Standard	
			Oil Co. of Louisiana at	
			Baton Rouge, La. Story of	
			the part that the Standard	
			Oil Co. of Louisiana is	
			playing in the synthetic	
			rubber program appears on	
			pages 949 to 959 under the	
			title "Molecular Magic at	
			Baton Rouge", written by	
Glass			Associate Editor F.J. Van	
Negatives			Antwerpen, following a two-	
- Box 946			day inspection trip). Mid -	
to 1155	RUBB/1033	c.1920	shot photograph	8.2x10.8
Glass				
Negatives			1034 Rubber processing	
- Box 946			plant. View of recovery	
to 1155	RUBB/1034	c.1920	area. Mid -shot photograph	8.2x10.8
			1035 Fig.20. (top) Pumps for	
			Moving Butadiene and Styrene	
Glass			to reactors. Flow diagram of	
Negatives			GR-S Rubber production	
- Box 946			(Standard Design) (bottom).	
to 1155	RUBB/1035	c.1920	Mid -shot photograph	8.2x10.8
Glass			1036 Rubber processing	
Negatives			plant. Fig.25. Reactors in	
- Box 946			which polymerization takes	
to 1155	RUBB/1036	c.1920	place. Mid -shot photograph	8.2x10.8
Glass			1037 Fig.28. Concrete	
Negatives			blending tanks for GR-S	
- Box 946			Latex. (Rubber processing	
to 1155	RUBB/1037	c.1920	plant.) Mid -shot photograph	8.2x10.8
			1038 Fig.31. View of the	
Glass			driers, which will evaporate	
Negatives			160 tons of water a day.	
- Box 946			(Rubber processing plant).	
to 1155	RUBB/1038	c.1920	Mid shot photograph	8.2x10.8

			1020 Contoco $(1 ord 0)$	
			1039 Cartoon. (1 and 2).	
			Disney's Donald Duck	
			explaining about synthetic	
			rubber. ("I'll show you how	
			to make synthetic rubber").	
			Butadiene: Okay – we are	
			off! One form of synthetic	
			(or, better, substitute)	
			rubber starts with all as it	
			comes from the earth.	
			"Cracking" oil (1) gives	
			gasoline. grease, many other	
			things. One of these is	
Glass			butadiene (2) – pronounced	
Negatives			bu-ta-dy'ene- a very complex	
- Box 946			gas composed of hydrogen and	
to 1155	RUBB/1039	c.1920	carbon.	8.2x10.8
			1040 Cartoon. (3 and 4).	
			Disney's Donald Duck.	
			Styrene: Leaving butadiene a	
			moment, consider coal.	
			"Coal" can also be made to	
			yield a huge array of	
			different substances (3)-	
			raw materials of tomorrow's	
			chemistry. One is styrene	
Glass			(4), a liquid and, like	
Negatives			butadiene a hydrocarbon- but	
- Box 946			of different molecular	
to 1155	RUBB/1040	c.1920	structure. That all clear?	8.2x10.8
			1041 Cartoon. (5 and 6).	
			Disney's Donald Duck. Now we	
			bring butadiene and styrene	
			together -three quarters of	
			the first, one quarter of	
			the second- in a solution of	
			soapy water (5). They	
			combine to form a basic	
			latex, similar to that of	
Glass			natural rubber. This is just	
Negatives			about as simple as adding	
- Box 946			sugar and egg to milk (6) to	
to 1155	RUBB/1041	c.1920	make custard.	8.2X10.8
	- ,		1042 Cartoon. (7 and 8).	
			Disney's Donald Duck. After	
			the latex has "cooked"	
			awhile, the chemical action	
Glass			is halted and an antioxidant	
Negatives			is added as a preservative	
- Box 946			(7). This is the last step	
to 1155	RUBB/1042	c.1920	in blending latex	8.2x10.8
		J. 1 J L V	1 Dicinality factor	J. 2AIU. 0

				1
			synthetically - just as	
			adding flavouring (8) in the	
			last step in mixing that	
			custard we spoke of. Getting	
			hungry?	
			1043 Cartoon. (9 and 10).	
			Disney's Donald Duck. But	
			the latex is still liquid.	
			Before it can be used, it	
			must be coagulated or	
			-	
			curdled-broken up into	
			rubber particles. This is	
			done with salt and sulphuric	
			acid (9). Custard curdels,	
Glass			too, if you leave to long	
Negatives			over the fire (10). You	
- Box 946			don't believe me? Ask any	
to 1155	RUBB/1043	c.1920	bride!	8.2x10.8
			1044 Cartoon. (11 and 12).	
			Disney's Donald Duck. The	
			curdled latex next has is	
			water and moisture removed.	
			As it is passed over a	
			vacuum-which sucks the water	
			out- rollers, help the job	
			along with pressure. Result:	
Glass			damp, rubbery particles	
Negatives			(11). Remember how Mother	
- Box 946			used to squeeze the liquid	
to 1155	RUBB/1044	c.1920	from cottage cheese (12)?	8.2x10.8
			1045 Cartoon. (13 and 14).	
			Disney's Donald Duck.	
			Semifinal step: the rubber	
			particles are put through a	
			drier and given a nice, even	
			toasting at 215 degrees	
			Fahrenheit (13). This	
			removes the last bit of	
Class			moisture from the liquid	
Glass			latex. You could compare the	
Negatives			procedure to roasting	
- Box 946	·		peanuts (14). Mmm- care to	
to 1155	RUBB/1045	c.1920	have a bag with me?	8.2x10.8
			1046 Cartoon. (15 and 16).	
			Disney's Donald Duck. The	
Glass			little chunks of rubber are	
Negatives			now baled (15), ready to	
- Box 946			ship to the manufacturer. If	
to 1155	RUBB/1046	c.1920	the manufacturer prefers, we	8.2x10.8
	,			

			can squeeze the rubber into	
			sheets first (16). That's	
			how it often comes -sorry,	
			used to come- from Malayan	
			–	
			and East Indian rubber	
			plantations.	
			1047 Rubber processing	
			tower. 20 000 gallons per	
			minute is the rate at which	
			process water is cooled from	
			100 to 80 o.F. Andrew C.	
Glass			Smey is inspecting the fins	
Negatives			on the side of the tower at	
- Box 946			Institute. Mid -shot	
to 1155 R	UBB/1047	c.1920	photograph	8.2x10.8
			1048 Rubber processing	
			tower. Top of the cooling	
			tower at Institute is	
			equipped with nine propeller	
			type fans that circulate 1	
Glass			500 000 cubic feet of air	
Negatives			per minute to cool process	
- Box 946			water, used in making GR-S.	
to 1155 R	UBB/1048	c.1920	Mid -shot photograph	8.2x10.8
			1049 BLE arrives from	
			Naugatuck, an antioxidant	
			used as a preservative in	
			GR-S at Institute. Naugatuck	
Glass			Chemical Division is	
Negatives			credited with important	
- Box 946			-	
	/	1000	improvements in GR-S. Mid -	
to 1155 R	UBB/1049	c.1920	shot photograph	8.2x10.8
			1050 The alcohol now comes	
			from corn. It takes about	
			one and three quarters	
			-	
			bushels of corn to make	
			rubber for one automobile	
			tyre; and 27 700 000 bushels	
			a year. Pumps move raw	
			materials; butadiene,	
			styrene and other chemicals	
			for storage to reactor areas	
GLass			at Institute as C.E.Lucas	
Glass			at Institute as C.E.Lucas	
Negatives			checks over its many	
Negatives - Box 946	UBB/1050	c.1920		8.2x10.8

				[]
			1051 Seventy-two reactors	
			like these are provided at	
			Institute for polymerization	
			of butadiene and styrene.	
			Reactors used at Institute	
			consume hardly one per cent	
			of our normal corn crop. But	
			the chemists don't care what	
			they make it from -molasses,	
			potatoes, sugar, wood, coal	
			tar, natural gas or	
			petroleum. Any or all of	
			these come from Pearl	
			Harbour, and Washington	
			ordered the project doubled.	
			Then, as realization of the	
			emergency grew, it was	
Glass			doubled again - and again.	
Negatives			Each change meant starting a	
- Box 946			new set of plans. Mid -shot	
to 1155	RUBB/1051	c 1920	photograph	8.2x10.8
00 1100	10000/1001	0.1920	1052 George Graham turns the	0.2110.0
			-	
			valve that starts the flow	
			of butadiene, first stage of	
			synthetic rubber manufacture	
			in his plant, on March 31st.	
			(top). Blow-down tanks at	
			Institute- intermediate	
			stage between polymerization	
Glass			and blending- give idea of	
Negatives			the size of installations.	
- Box 946				
		~ 1000	(central picture) Mid -shot	0 0-10 0
to 1155	RUBB/1052	c.1920	photograph	8.2x10.8
			1053 Butadiene, styrene, and	
			many special chemicals are	
			moved by pumps and pipe	
Glass			lines from storage room to	
Negatives			reactor area at Institute	
- Box 946			plant. (United States Rubber	
to 1155	RUBB/1053	c.1920	Co.). Mid -shot photograph	8.2x10.8
	,_000		1054 Huge compressor	
			batteries of this type are	
<u></u>			being installed by Clark, in	
Glass			many leading plants for the	
Negatives			manufacture of both Buna and	
- Box 946			Butyl types of synthetic	
to 1155	RUBB/1054	c.1920	rubber. Mid -shot photograph	8.2x10.8
Glass				
Negatives				
- Box 946			1055 Large Midwestern tank	
to 1155	RUBB/1055	c.1920	farms. Mid -shot photograph	8.2x10.8
CO 1100		0.1720	Tarmo, inta snot photograph	J. 2A10.0

-				r 1
Glass			1056 (Reactors as shown).	
Negatives			The synthetic latex is	
- Box 946			coagulated in these large	
to 1155	RUBB/1056	c.1920	tanks. Mid -shot photograph	8.2x10.8
10 1100	KOBB/ 1030	C.1920		0.2210.0
			1057 Storage. The gas	
			butadiene – brief	
			constituent of Buna	
			synthetic rubber- is stored	
			as a liquid under pressure	
			1 1	
			in great spherical tanks at	
			a synthetic plant built and	
Glass			operated for the government	
Negatives			by United States Rubber	
- Box 946			Company. Mid -shot	
		~ 1020		8.2x10.8
to 1155	RUBB/1057	c.1920	photograph	8.2X10.8
Glass				
Negatives			1059 (April, 15) Largest	
- Box 946			Synthetic Rubber Plant. Mid	
to 1155	RUBB/1059	c.1920	-shot photograph	8.2x10.8
	1000/1009	C. 1 J 2 0		0.2410.0
			1060 (April, 1944).	
			Industrial and Engineering	
			Chemistry. Union Carbide	
			Reports: first full-year's	
			production of Butadiene for	
			the Government's Synthetic	
			_	
			Rubber Programme (Institute,	
			W.Va. Plant). Night view of	
			the immense butadiene plant	
			at the Institute, W.Va A	
			little over a year ago the	
			first tank car of butadiene	
			was shipped from the	
			Government's large	
			integrated rubber project at	
			Institute W. Va. Now huge	
			-	
			butadiene producer -although	
			originally designed to	
			produce 80 000	
			tons annual capacity, the	
Glass			Institute plant is now	
Negatives			delivering butadiene at a	
-			5	
- Box 946			rate of more than 100 000.	
to 1155	RUBB/1060	c.1920	Mid shot photograph.	8.2x10.8
			1061 (Carbide and Carbon	
			Chemicals Corporation	
			Photograph). Butadiene, made	
			from grain alcohol, is	
Glass			produced in this section of	
Negatives			a government synthetic-	
- Box 946			rubber plant in West	
to 1155	RUBB/1061	c.1920	Virginia. Mid -shot	8.2x10.8
L CO TTOO		C.1920	virginita, mita snot	0.2A10.0

			photograph	
			photograph	
			1062 (Illustrated, 1944,	
			March 18). Test Tube Rubber.	
			Butadiene, chief ingredient	
			of synthetic rubber will be	
			made in giant towers at Port	
			Neches, Texas. The Japanese	
			hold the bulk of the world's	
			rubber. How chemists have	
			produced a superior	
			substitute is told by Carl	
			Olsson. When the Japs struck	
			at Pearl Harbour and overran	
			the Far East they also	
			struck what might well have	
			been a mortal blow against the United Nations'	
			capacity to wage modern	
			mechanized war. The United	
			States, with large	
			quantities of the basic raw	
			materials, alcohol or	
			petroleum, near at hand, got	
			busy early on the problem. Within a month of Pearl	
			Harbour plans had been drawn	
			up for the production of	
			synthetic rubber and the	
			goal was set at 800 000	
			tons. The entire rubber	
			consumption in the whole	
			country in the year before	
			Pearl Harbour was only about	
			600 000 tons. The bottleneck	
			of synthetic rubber	
			production is a substance called butadiene. In 1942	
Glass			the best existing methods of extraction then known	
Negatives			yielded only two per cent of	
- Box 946		a 1020	this substance. Mid -shot	0 2 1 0 0
to 1155	RUBB/1062	c.1920	photograph	8.2x10.8
			1063 $(4/44)$. Dotting the	
Clear			site of one of the world's	
Glass			largest butadiene plants are	
Negatives			forty-two huge spherical	
- Box 946		~ 1000	pressure tanks, some with a	0 010 0
to 1155	RUBB/1063	C.1920	capacity of 12 000 barrels.	8.2x10.8

			Mid shot photograph	
			Mid -shot photograph	
			1064 The Chemical News	
			Parade. This is one of three	
			fluid catalytic cracking	
			plants Standard Oil of New	
			Jersey has erected for the	
C 1			refining of petroleum and	
Glass			the production of aviation	
Negatives			gasoline to meet the	
- Box 946	(steadily growing demand.Mid	
to 1155	RUBB/1064	c.1920	-shot photograph	8.2x10.8
			1065 This close up shows one	
			of the meters in the control	
			room of the cracking plant.	
			These operators can tell	
			immediately from a glance at	
			the dial just how much	
			catalyst is being fed into	
			the plant and by the mere	
			turning of a knob can	
			increase or decrease this	
			flow. (top). This maze of	
			pipes contains gas oil or	
			reduced crude which is	
			heated before it enters the	
			catalytic cracker in a	
Glass			vaporized state to be broken	
Negatives			down into its hydrocarbon	
- Box 946			components. (bottom). Close	
to 1155	RUBB/1065	c.1920	up photograph	8.2x10.8
Glass	. ,		1067 Catalytic Cracking	
Negatives			Plant under construction by	
- Box 946			Socony-Vacuum Oil Company,	
to 1155	RUBB/1067	c.1920	Inc. Mid -shot photograph	8.2x10.8
	1.000/100/	C.1720	1068 The Research	0.2210.0
			Association of British	
			Rubber Manufacturers.	
Glass			Industrial and Engineering	
Negatives			Chemistry. Industrial	
- Box 946			Edition. Consecutive No.13.	
		~ 1000		0 010 0
to 1155	RUBB/1068	c.1920	Mid -shot photograph	8.2x10.8

				
			1069 This is part of an	
			integrated plant built and	
			operated for the Rubber	
			Reserve Company by Carbide	
			and Carbon Chemicals	
			Corporation and United	
			States Rubber Company. The	
			piping in the foreground is	
			supported on steel salvaged	
			from the Brooklyn elevated	
			street railway;	
			approximately 300 tons of	
			steel were obtained for this	
			purpose. Some 400 miles of	
			piping are used in the	
			construction of the process	
			units. (The photograph on	
			the Contents Page (see page	
Glass			3 of the advertising	
Negatives			section) of this issue shows	
- Box 946			one the butadiene units).	
to 1155	RUBB/1069	c.1920	Mid -shot photograph	8.2x10.8
			1070 (Volume 22, March 10).	
			Canals has to be dredged to	
			siphon the water from	
			marshes and the muck cleared	
			from the ditches with	
			draglines before	
			construction of the plant	
Glass			for the Neches Butane	
			Products Co. could be	
Negatives				
- Box 946		- 1000	started. Mid -shot	0 0 1 0 0
to 1155	RUBB/1070	c.1920	photograph	8.2x10.8
			1071 Timber and material for	
			the first buildings could	
			not be brought to the	
			property because of mud and	
_			the lack of roads, so it was	
Glass			dumped into a drainage canal	
Negatives			and floated 1 mile to the	
- Box 946			building site. Mid -shot	
to 1155	RUBB/1071	c.1920	photograph	8.2x10.8
			1072 Dredges cut huge canals	
			as shown above to transport	
			the cooling water from the	
			Neches River to the plant,	
			and then it is carried back	
Glass			again through the outfall	
Negatives			canal after the water has	
- Box 946			served its purpose. Mid shot	
to 1155	RUBB/1072	c.1920	photograph	8.2x10.8
CO 1100		U. 1 J 2 U	Piiocograpii	0.2410.0

			1072 11 1 1 6	
			1073 Hundred of pumps are to	
			be used for pumping the	
Glass			cooling water. Water is	
Negatives			obtained at the river	
- Box 946			pumping station. Mid -shot	
to 1155	RUBB/1073	c.1920	photograph	8.2x10.8
			1074 A general view of the	
Glass			plant layout at the Trenton	
Negatives			Valley Distillers Corp.,	
- Box 946			Trenton, Mich. Mid -shot	
to 1155		a 1920		8.2x10.8
10 1155	RUBB/1074	C.1920	photograph	0.2X10.0
			1076 Chemical and	
			Engineering News. Synthetic	
			Rubber Production. Equal in	
			capacity to more than 200	
			000 acres of rubber trees,	
			this government owned plant	
			operated by the Firestone	
			Tire & Rubber Co., was the	
			first unit in the	
			government's synthetic	
			rubber program to begin	
			production. The completion	
			of two other synthetic	
			rubber plants by Firestone	
			in the South will make the	
			company's total capacity	
			equal to that of a million	
			acres of rubber trees. Tires	
			and the other hundreds of	
			rubber products made by	
			Firestone with synthetic	
Glass			rubber have stood up well	
Negatives			under the severest possible	
-			battle conditions. Mid -shot	
- Box 946		1000		0 0 1 0 0
to 1155	RUBB/1076	c.1920	photograph	8.2x10.8
			1077 Technical drawing,	
Glass			(Technical employees in our	
Negatives			plants to perform the duties	
- Box 946			of those who had been	
to 1155	RUBB/1077	c.1920	transferred).	8.2x10.8
			1078 Canadian Government	
Glass			Opens Sarnia Rubber Plant	
Negatives			(by F.J.Van Antwerpen,	
- Box 946			Associate Editor). Close up	
to 1155	RUBB/1078	c.1920	_	8.2x10.8
LO 1100	VUDD/IU/0	C.1920	photograph	U.ZXIU.Ö

		Γ		[]
			1079 One of the heat	
			exchangers of the extraction	
			section of the butadiene	
			unit, where the rated	
			capacity is 30 000 tons a	
			year, from which 34 000 tons	
			of Buna S rubber are made.	
			(Right: Styrene is purified	
01			in this building. Production	
Glass			of styrene has begun just	
Negatives			eleven months after the	
- Box 946			first sod was turned). Mid -	
to 1155	RUBB/1079	c.1920	shot photograph	8.2x10.8
			1080 One of four ethyl	
			benzene units at Texas	
			plant. Alkylation takes	
			place to form ethyl benzene	
Glass			and in addition diethyl	
Negatives			benzene and polyethel	
- Box 946			benzenes. Mid -shot	
to 1155	RUBB/1080	c.1920	photograph	8.2x10.8
0 1100	1(000) 1000	C.1920	1081 The dehydrogenation of	0.210.0
C1			ethyl benzene is carried out	
Glass			using furnaces pictured. A	
Negatives			catalyst case can be seen	
- Box 946			inside the building. Mid -	
to 1155	RUBB/1081	c.1920	shot photograph	8.2x10.8
			1082 Styrene finishing unit.	
			The proper combination of	
			high-vacuum technique plus	
Glass			suitable inhibitors has made	
Negatives			a routine operation out of a	
- Box 946			difficult problem. Mid shot	
to 1155	RUBB/1082	c.1920	photograph	8.2x10.8
			1083 Diagram. (Pressure	
			relief valve and Combined	
			liquid level, gauge and	
			sampling and temperature	
			lock). Annual operating	
			· · · · · · · · · · · · · · · · · · ·	
			costs. The annual operating	
			costs consist of: (1)	
			investment charges; (2)	
			taxes; (3) maintenance and	
			repair; (4) supplies and	
			miscellaneous, and (5)	
			power, light and fuel. The	
			investment charges for the	
Glass			corkboard, used on the	
Negatives			single-wall containers, are	
- Box 946			based upon a ten year life,	
to 1155	RUBB/1083	c.1920	no salvage value, 4 per cent	8.2x10.8
			callage value, i per cent	

Sinking Tund Interest, and 4 per cent bond Interest, for a combined figure of 6.7 per cent of the initial cost of the insulation. The investment charges for the refrigeration plant are based upon a 20 year life, 10 per cent salvage value, 4 per cent sinking fund interest and 4 per cent bond interest, for a combined figure of 7 per cent initial cost of the refrigeration plant.Glass Negatives - Box 946 to 1155RUBB/1084c.19201084 Diagram. Rubber plant.8.2x10.8Glass Negatives - Box 946 to 1155RUBB/1085c.19201084 Diagram. Rubber plant.8.2x10.8Glass Negatives - Box 946 to 1155RUBB/1085c.19201084 Diagram. Rubber plant.8.2x10.8Glass Negatives - Box 9461085 General view of rubber plant. Mid -shot photograph 8.2x10.88.2x10.8Ilos facilities, and plant utilities, and plant operated polymerization plant (not shown) beyond the parking area. (Key to Institute Plant: 1 to 28)Glass Negatives - Box 946 to 1155RUBB/1086c.1920Institute Plant: 1 to 28)8.2x10.8Glass Negatives - Box 946 to 1155RUBB/1086c.1920Institute Plant: 1 to 28)8.2x10.8Glass Negatives - Box 946 to 1155RUBB/1087c.1920View. Mid -shot photograph8.2x10.8Glass Negatives - Box 946 to 1155RUBB/1087c.1920Institute Plant: 1 to 28)8.2x10.8Glass Negatives - Box 946 to 1155 <td< th=""><th></th><th></th><th></th><th></th><th></th></td<>					
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Glass1089 Pumps for movingNegativesbutadiene and styrene to- Box 946reactors. Mid-shot			- 1000	-	0 0 1 0 0
Negativesbutadiene and styrene to- Box 946reactors. Mid-shot		KORR/108/	C.1920		8.2X10.8
- Box 946 reactors. Mid-shot					
	-				
to 1155 RUBB/1089 c.1920 photograph 8.2x10.8	- Box 946			reactors. Mid-shot	
	to 1155	RUBB/1089	c.1920	photograph	8.2x10.8

Glass				
Negatives			1090 Reactors in which	
- Box 946			polymerization takes place.	
to 1155	RUBB/1090	c 1920	Mid -shot photograph	8.2x10.8
Glass	10000, 1000	0.1920		0.2110.0
Negatives			1091 Concrete blending tanks	
- Box 946			for GR-S latex. Mid -shot	
to 1155	RUBB/1091	c 1920	photograph	8.2x10.8
Glass	10000, 1001	0.1920		0.2410.0
Negatives			1092 A pair of butadiene	
- Box 946			units and a dowtherm heat	
to 1155	RUBB/1092	c 1920	unit. Mid -shot photograph	8.2x10.8
Glass	10000/1002	0.1920		0.2110.0
Negatives			1093 Safety tower for	
- Box 946			burning of waste gases. Mid	
to 1155	RUBB/1093	C.1920	-shot photograph	8.2x10.8
Glass	,	2.2220	P	
Negatives			1094 Two of the five alcohol	
- Box 946			storage tanks. Mid -shot	
to 1155	RUBB/1094	c.1920	photograph	8.2x11.8
Glass				
Negatives			1095 Meter and control room	
- Box 946			for one of the butadiene	
to 1155	RUBB/1095	c.1920	units. Mid-shot photograph	8.2x11.8
Glass				
Negatives			1096 Tanks for preparation	
- Box 946			of soap and other solutions	
to 1155	RUBB/1096	c.1920	used. Mid- shot photograph	8.2x11.8
Glass			1097 View of the driers	
Negatives			which will evaporate 160	
- Box 946			tons of water a day. Mid -	
to 1155	RUBB/1097	c.1920	shot photograph	8.2x11.8
			1098 Table. U.S. Government	
			Rubber Programme for	
			Synthetic Rubber Plant.	
			Position at the completion	
			of plant erection. June,	
			1944. (Product; Rated annual	
			capacity, tons; Expected	
Glass			annual capacity, % rated;	
Negatives			Investment cost, %; Total	
- Box 946			production to June 1944,	
to 1155	RUBB/1098	c.1920	tons).	8.2x11.8
Glass			1099 Table. U.S. Government	
Negatives			Synthetic Rubber Plant.	
- Box 946			(Date of first production,	
to 1155	RUBB/1099	c.1920	Butadiene, Styrene, GR-S).	8.2x11.8
<u></u>			1100 Guarda (0) D	
Glass			1100 Graph. (2) Degree of	
Negatives		~ 1000	cracking against percentage	0 011 0
- вох 946	RUBB/1100	C.1920	strain.	8.2x11.8

to 1155				
Glass				
Negatives				
- Box 946				
to 1155	RUBB/1101	c.1920	1101 Photomicrograph.	8.2x.8.2
Glass				
Negatives			1102 Photomicrograph. (Cross	
- Box 946			section marked with A, D, F,	
to 1155	RUBB/1102	c.1920	and E).	8.2x.8.2
Glass				
Negatives			1103 Photomicrograph. (Cross	
- Box 946		1.0.0.0	section marked with A, B,	
to 1155	RUBB/1103	C.1920	C, D, E, and F)	8.2x.8.2
Glass			1104 Photomicrograph Cross	
Negatives - Box 946			1104 Photomicrograph. Cross sections. (A, D, E, and F	
to 1155	RUBB/1104	c.1920	and A,C,D,E, and F)	8.2x10.8
Glass	1.022, 1101			
Negatives				
- Box 946			1105 Rescue boat in river.	
to 1155	RUBB/1105	c.1920	Close up photograph	8.2x10.8
Glass				
Negatives				
- Box 946	(1106 Float. Close up	
to 1155	RUBB/1106	c.1920	photograph	8.2x10.8
Glass				
Negatives - Box 946			1107 Set of three floats in	
to 1155	RUBB/1107	c 1920	rubber plant. Mid -shot photograph	8.2x10.8
Glass	10001101	C.1320	риосоугари	0.2410.0
Negatives				
- Box 946			1108 Canoe, lake lifeguard	
to 1155	RUBB/1108	c.1920	boat. Mid -shot photograph	8.2x10.8
Glass	1			
Negatives				
- Box 946			1109 Inflatable boat. Close	
to 1155	RUBB/1109	c.1920	up photograph	8.2x10.8
Glass				
Negatives				
- Box 946		a 1020	1110 Rescue paddleboard. Mid	0 2-10 0
to 1155	RUBB/1110	c.1920	-shot photograph	8.2x10.8
-			1111 Lifequard inflatable	
to 1155	RUBB/1111	c.1920	boat. Close up photograph	8.2x10.8
Glass Negatives - Box 946			1111 Lifeguard inflatable	

Glass				
Negatives				
- Box 946		1000	1112 Portable rescue boat.	0 0 1 0 0
to 1155	RUBB/1112	c.1920	Mid -shot photograph	8.2x10.8
Glass				
Negatives				
- Box 946			1113 Safety rescue portable	
to 1155	RUBB/1113	c.1920	boat. Close up photograph	8.2x10.8
Glass				
Negatives				
- Box 946			1114 Avionette (seaplane).	
to 1155	RUBB/1114	c.1920	Mid -shot photograph	8.2x10.8
Glass				
Negatives				
- Box 946			1115 Seaplane 15 (K4230).	
to 1155	RUBB/1115	c.1920	Close up photograph	8.2x10.8
			1116 Design diagram	
			(avionette). "Y" Dinghy	
			seaplane with dinghy towed	
			on top. Made by The Red	
Glass			Company, 17 Stoke Rd,	
Negatives			Guilford, Surrey. (Showing	
- Box 946			hydrostatic switch and	
to 1155	RUBB/1116	c.1920	stowage for dinghy).	8.2x10.8
Glass	ROBB/1110	C.1920	scowage for dringing).	0.210.0
Negatives				
- Box 946			1117 Diaplawing open dinghy	
	RUBB/1117	~ 1020	1117 Displaying open dinghy.	8.2x10.8
to 1155	RUBB/III/	c.1920	Close up photograph	0.2X10.0
Glass			1118 Balance diagram.	
Negatives			Chemical bonds. Styrene from	
- Box 946		1000	ethylbenzene. (AlCl 3; Fe	0 0 10 0
to 1155	RUBB/1118	c.1920	Steam 800-900 oC)	8.2x10.8
			1119 Sources of butadiene	
			(with chemical equation).	
Glass			(1) Cracked petroleum gas	
Negatives			and natural gas; (2) 2-	
- Box 946			Butene; (3) n-Butane; (4)	
to 1155	RUBB/1119	c.1920	Alcohol.	8.2x10.8
			1120 Formation of a	
Glass			butadiene-styrene co-polymer	
Negatives			link. Chemical equation and	
- Box 946			bonds (Catalyst, Emulsifier,	
to 1155	RUBB/1120	c.1920	Modifiers, Water).	8.2x10.8
Glass				
Negatives				
- Box 946			1121 Branched Chain GR-S.	
to 1155	RUBB/1121	c.1920	Chemical equation.	8.2x10.8
Glass			1122 (Film). Photograph of	
Negatives			Directors during	
- Box 946	RUBB/1122	c.1920	construction in rubber	6.0x8.7

to 1155 plant. Mid -shot photograph Ili23 (Film). Elliott-Fisher Continental Cinema.	
Claga Continental Cinema	
Negatives Directors of Rubber plant in	
- Box 946 front of car. Mid -shot	
	<8 . 7
Glass	
Negatives 1124 (Film). Rubber	
- Box 946 processing tanks. Mid -shot	0 7
	<8.7
Glass	
Negatives 1125 (Film). Rubber	
- Box 946 processing tanks. Close up	-0 7
to 1155 RUBB/1125 c.1920 photograph 6.0x Glass	<8 . 7
Class Negatives	
- Box 946 1126 (Film). Rubber plant.	
	-0 7
to 1155 RUBB/1126 c.1920 Mid -shot photograph 6.0x Glass	<8.7
Negatives 1128 People in the streets	
- Box 946 with rubber gas masks. Mid -	
	<10.8
Glass	10.0
Negatives 1129 Rubber plant workers	
- Box 946 wearing special uniforms.	
	<10.8
Glass	10.0
Negatives	
- Box 946 1131 Rubber uniforms and	
to 1155 RUBB/1131 c.1920 masks. Mid -shot photograph 8.2x	<10 8
Glass	770.0
Negatives 1132 Rubber pipes laying in	
- Box 946 the streets. Close up	
	<10.8
Glass 1133 Portrait. (Harris &	
Negatives Ewin). President (Rubber	
- Box 946 Company). Close up	
	<10.8
Glass	
Negatives	
- Box 946 1134 Petrol turbines. Mid -	
	<10.8
Glass	
Negatives 1136 Portrait. (Chemical	
- Box 946 Industries, 1940). Close up	
	<10.8

Glass				
Negatives				
- Box 946			1138 Another view of rubber	
to 1155	1120 / 1120	~ 1020	plant. Mid -shot photograph	8.2x10.8
	RUBB/1138	C.1920		0.2X10.0
Glass			1139 Four big units for	
Negatives			producing butadiene from	
- Box 946			alcohol near Pittsburgh,	
to 1155	RUBB/1139	c.1920	Penna. Mid -shot photograph	8.2x10.8
			1140 Graph. Resilience	
			against parts (per 100	
Glass			R.H.C.) of carbon black.	
Negatives			German carbon blacks and	
- Box 946			resilience. Black loading	
to 1155	RUBB/1140	c.1920	curves.	8.2x10.8
Glass			1141 Graph. Various resins	
Negatives			in GR-S cements. Thickness	
- Box 946			(ins x 10-4) against load	
to 1155	RUBB/1141	c.1920	(lb/in).	8.2x10.8
	11022, 111	0.1210	1142 Graph. Effect of	
Glass			kerosene on bond strength of	
Negatives			GR-S cements. Thickness (ins	
- Box 946				
	1140 / 1140	~ 1020	x 10-4) against load	0 210 0
to 1155	RUBB/1142	C.1920	(lb/in).	8.2x10.8
Glass				
Negatives			1143 Graph. Isocyanates in	
- Box 946	(GR-S cements. Thickness	
to 1155	RUBB/1143	c.1920	against load to strip.	8.2x10.8
Glass			1144 Graph. Isocyanates in	
Negatives			GR-S cements. Weeks after	
- Box 946			mixing against gelling	
to 1155	RUBB/1144	c.1920	tendency,	8.2x10.8
Glass				
Negatives			1145 Graph. Curve. Def()	
- Box 946			Hardness against Proportion	
to 1155	RUBB/1145	c.1920	of Renacit.	8.2x10.8
Glass				
Negatives			1146 Graph. Abrasion loss	
- Box 946			against load. Natural rubber	
to 1155	RUBB/1146	c.1920	and buna curves.	8.2x10.8
Glass			1147 Diagram. Electric motor	
Negatives			and rubber sample. (1.axis	
- Box 946			fixed; 2. and 3. supported	
to 1155	RUBB/1147	c.1920	by free swinging arms).	8.2x10.8
Glass	10000/111/	C.1720	1148 Diagram. Pivot, lever	0.2410.0
Negatives			and scale. (Constant	
- Box 946				
	11 / 11 / 0	~ 1000	temperature jacket and	0 010 0
to 1155	RUBB/1148	c.1920	cylindrical rubber sample).	8.2x10.8
Glass			1149 Graph. Steam and air	
Negatives			against time of reclaiming	
- Box 946	RUBB/1149	c.1920	(mins).	8.2x10.8
- DUX 940	NUDD/1149	C.1920	(11111).	U.ZXIU.O

to 1155				[]
10 1133				
Glass				
Negatives			1150 Graph. Buna curves.	
- Box 946			Centigrade after 2000 revs.	
to 1155	RUBB/1150	c 1020	against load.	8.2x10.8
Glass	VODD/1130	C.1920	ayainst iudu.	U.ZXIU.O
Negatives			1151 Die mart Duit C	
- Box 946		1000	1151 Diagram. Drive from	0 0 1 0 0
to 1155	RUBB/1151	C.1920	motor parts.	8.2x10.8
Glass				
Negatives			1155 Rubber processing plant	
- Box 946		1	machinery. Mid -shot	0 0 1 0 0
to 1155	RUBB/1155	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box			1156 Rubber plant workers in	
1156 to			laboratory. Mid -shot	
1480	RUBB/1156	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box				
1156 to			1157 Motor testing on desk.	
1480	RUBB/1157	c.1920	Mid -shot photograph	8.2x10.8
Glass				
Negatives				
- Box				
1156 to			1158 Testing equipment. Mid	
1480	RUBB/1158	c.1920	-shot photograph	8.2x10.8
Glass				
Negatives				
- Box			1159 Woman working on	
1156 to			microscope samples. Close up	
1480	RUBB/1159	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box				
1156 to			1160 Battery. Close up	
1480	RUBB/1160	c.1920	photograph	8.2x10.8
Glass	,			
Negatives				
- Box				
1156 to			1161Laboratory machinery.	
1480	RUBB/1161	c.1920	Close up photograph	8.2x10.8
Glass			ab buocodrabu	
Negatives				
- Box			1162 Machines for rubber	
1156 to			processing. Close up	
1480	1160 /11	a 1020		9 2++10 0
1400	RUBB/1162	C.1920	photograph	8.2x10.8

	T		11.00 11	1
Glass			1163 Microscope.	
Negatives			(Gessellschaft fur	
- Box			Feinmechanik, m.b.H.;	
1156 to			Manheim). Mid -shot	
1480	RUBB/1163	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box			1164 Rubber plant, general	
1156 to			interior view. Mid -shot	
1480	RUBB/1164	c 1920	photograph	8.2x10.8
Glass	ROBD/1104	C.1 <i>J</i> 20		0.210.0
Negatives				
- Box			1165 Rubber plant, machines	
1156 to			close up. Mid -shot	
1480	RUBB/1165	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box				
1156 to			1166 Diagram. Rubber	
1480	RUBB/1166	c.1920	processing.	8.2x10.8
Glass				
Negatives				
- Box			1167 Rubber plant, general	
1156 to		1000	building view with stacks.	0 0 1 0 0
1480	RUBB/1167	c.1920	Mid -shot photograph	8.2x10.8
Glass				
Negatives				
- Box			1168 Rubber plant, general	
1156 to			view in storage room. Mid -	
1480	RUBB/1168	c.1920	shot photograph	8.2x10.8
Glass				
Negatives				
- Box			1169 Rubber plant, general	
1156 to			view; exterior towers. Mid -	
1480	RUBB/1169	c.1920	shot photograph	8.2x10.8
Glass	RODD/1105	C.1 <i>J</i> 20		0.210.0
Negatives				
- Box			1170 Rubber plant, general	
1156 to	· · ·		view, exterior; store huts.	
1480	RUBB/1170	c.1920	Mid -shot photograph	8.2x10.8
Glass				
Negatives				
- Box			1171 Rubber plant, general	
1156 to			exterior view. Mid -shot	
1480	RUBB/1171	c.1920	photograph	8.2x10.8
Glass	· _	-		
Negatives			1172 Rubber plant, general	
- Box			store room with ladder to	
- 50x 1156 to			slide down the materials.	
		a 1000		0 010 0
1480	RUBB/1172	c.1920	Misd -shot photograph	8.2x10.8

Glass				
Negatives				
- Box			1173 Film. Rubber plant	
1156 to			works and exterior. Mid -	
1480	RUBB/1173	c.1920	shot photograph	6.0x7.0
Glass				
Negatives				
- Box			1174 Tilm Dubben alant	
			1174 Film. Rubber plant	
1156 to			works and exterior. Mid -	
1480	RUBB/1174	c.1920	shot photograph	6.0x7.0
Glass				
Negatives				
- Box			1175 Film. Rubber plant	
1156 to			works and exterior. Mid -	
1480	RUBB/1175	c.1920	shot photograph	6.0x7.0
Glass		C. 1 J 2 0		0.04/.0
Negatives				
- Box			1176 Film. Rubber plant	
1156 to			works and exterior. Mid -	
1480	RUBB/1176	c.1920	shot photograph	6.0x7.0
Glass				
Negatives				
- Box			1177 Film. Rubber plant	
1156 to			works and exterior. Mid -	
		- 1000		C 07 0
1480	RUBB/1177	c.1920	shot photograph	6.0x7.0
Glass				
Negatives				
- Box			1178 Film. Rubber plant	
1156 to			works and exterior. Mid -	
1480	RUBB/1178	c.1920	shot photograph	6.0x7.0
Glass				
Negatives				
-			1170 Film Dubben plant	
- Box			1179 Film. Rubber plant	
1156 to		1000	works and exterior. Mid -	
1480	RUBB/1179	c.1920	shot photograph	6.0x7.0
Glass				
Negatives				
- Box			1180 Film. Rubber plant	
1156 to			works and exterior. Mid -	
1480	RUBB/1180	c.1920	shot photograph	6.0x7.0
Glass	,			
Negatives				
- Box			1181 Film. Rubber plant	
1156 to			works and exterior. Mid -	
1480	RUBB/1181	c.1920	shot photograph	6.0x7.0
Glass			1182 Fig.1 Photograph	
Negatives			showing the general layout	
- Box			of the plant. As will be	
1156 to			seen from the general layout	
1480	RUBB/1182	c.1920	in Fig.1 the plant has been	8.2x10.8
-	, ====	- · •		

		[
			erected on top on the slope	
			of a hill so that the	
			movement of the material is	
			practically throughout by	
			gravity. Mid -shot	
			photograph	
Glass				
Negatives			1183 Diagram. Fig.2	
-				
- Box			Sectional elevation and	
1156 to			plan. (top of tank,	
1480	RUBB/1183	c.1920	flotation discharge).	8.2x10.8
Glass				
			1104 Eig 2 The Handings Mill	
Negatives			1184 Fig.3 The Hardinge Mill	
- Box			for preliminary wet	
1156 to			grinding. Mid -shot	
1480	RUBB/1184	c.1920	photograph	8.2x10.8
Glass	- , _ 			
			1105 Dobrara 1022 Dia 4	
Negatives			1185 February 1933. Fig.4	
- Box			View showing flotation cells	
1156 to			and Dorr Thickener. Mid -	
1480	RUBB/1185	c.1920	shot photograph	8.2x10.8
Glass	100227 1100	0.1920	1186 Fig. 5 The Dorr	0.51110.0
Negatives			Thickener and Oliver	
- Box			Filters. Below is seen the	
1156 to			Scott Drier. Mid -shot	
1480	RUBB/1186	c 1920	photograph	8.2x10.8
	RODD/1100	0.1920		0.2810.0
Glass			1187 Industrial Chemist.	
Negatives			Fig. 6 The Scott Drier with	
- Box			inspection door open. Note	
1156 to			conveyor belt to feed	
1480	RUBB/1187	c 1920	hopper. Mid -shot photograph	8 2 - 10 8
1400	RODD/110/	0.1920		0.2810.0
			1188 Fig. 7 The Hardinge	
			dry-grinding mill. It is	
			carried onwards to the feed	
			hopper placed on top of a	
			Scott cylindrical drier, the	
			inclined and rotating tube	
			of which it is 35 ft. long	
			of which it is 35 ft. long by 5 ft. 6 in. in diameter,	
			of which it is 35 ft. long by 5 ft. 6 in. in diameter, and rotates by means of a	
			of which it is 35 ft. long by 5 ft. 6 in. in diameter, and rotates by means of a worm gear at 2 r.p.m. The	
			of which it is 35 ft. long by 5 ft. 6 in. in diameter, and rotates by means of a worm gear at 2 r.p.m. The photograph in Fig. 6 (see	
			of which it is 35 ft. long by 5 ft. 6 in. in diameter, and rotates by means of a worm gear at 2 r.p.m. The	
			of which it is 35 ft. long by 5 ft. 6 in. in diameter, and rotates by means of a worm gear at 2 r.p.m. The photograph in Fig. 6 (see 1187) shows the drier with	
			of which it is 35 ft. long by 5 ft. 6 in. in diameter, and rotates by means of a worm gear at 2 r.p.m. The photograph in Fig. 6 (see 1187) shows the drier with the inspection door open.	
			of which it is 35 ft. long by 5 ft. 6 in. in diameter, and rotates by means of a worm gear at 2 r.p.m. The photograph in Fig. 6 (see 1187) shows the drier with the inspection door open. The tube is heated on the	
			of which it is 35 ft. long by 5 ft. 6 in. in diameter, and rotates by means of a worm gear at 2 r.p.m. The photograph in Fig. 6 (see 1187) shows the drier with the inspection door open. The tube is heated on the outside by the gases from a	
Glass			of which it is 35 ft. long by 5 ft. 6 in. in diameter, and rotates by means of a worm gear at 2 r.p.m. The photograph in Fig. 6 (see 1187) shows the drier with the inspection door open. The tube is heated on the	
Glass Negatives			of which it is 35 ft. long by 5 ft. 6 in. in diameter, and rotates by means of a worm gear at 2 r.p.m. The photograph in Fig. 6 (see 1187) shows the drier with the inspection door open. The tube is heated on the outside by the gases from a	
Negatives			of which it is 35 ft. long by 5 ft. 6 in. in diameter, and rotates by means of a worm gear at 2 r.p.m. The photograph in Fig. 6 (see 1187) shows the drier with the inspection door open. The tube is heated on the outside by the gases from a coal fire at the further end of the drier. Through the	
Negatives - Box			of which it is 35 ft. long by 5 ft. 6 in. in diameter, and rotates by means of a worm gear at 2 r.p.m. The photograph in Fig. 6 (see 1187) shows the drier with the inspection door open. The tube is heated on the outside by the gases from a coal fire at the further end of the drier. Through the centre of the tube and over	
Negatives	RUBB/1188	c.1920	of which it is 35 ft. long by 5 ft. 6 in. in diameter, and rotates by means of a worm gear at 2 r.p.m. The photograph in Fig. 6 (see 1187) shows the drier with the inspection door open. The tube is heated on the outside by the gases from a coal fire at the further end of the drier. Through the	

			its heat by passage through a series of tubes placed in the path of the hot fuel gas. Mid -shot photograph	
Glass Negatives - Box 1156 to 1480	RUBB/1189	c.1920	1189 Fig. 8 The cyclone separating plant in the dry- grinding house. For the production of Bettablack, which is superior even to Biddiblack as a rubber reinforcing agent, the method is simpler for the flotation process is dispensed with. Mid -shot photograph	8.2x10.8
Glass Negatives - Box 1156 to			1190 Portrait. Close up	
1480 Glass Negatives - Box 1156 to 1480	RUBB/1190 RUBB/1191	c.1920 c.1920	photograph 1191 Aerial view of rubber plant. Mid -shot photograph	8.2x8.2 8.2x10.8
Glass Negatives - Box 1156 to 1480	RUBB/1192	c.1920	1192 Rubber plant depot. (Carbon Company Inc.). Mid - shot photograph	8.2x10.8
Glass Negatives - Box 1156 to 1480	RUBB/1193	c.1920	1193 Aerial showing rubber plant. Mid -shot photograph	8.2x10.8
Glass Negatives - Box 1156 to 1480	RUBB/1194	c.1920	1194 Aerial close up. Mid - shot photograph	8.2x10.8

Glass				
Negatives				
- Box				
1156 to			1195 Rubber plant equipment.	
1480	RUBB/1195	c.1920	Close up photograph	8.2x10.8
Glass				
Negatives				
- Box				
1156 to			1100 Entenion charring tenle	
		1000	1196 Exterior showing tanks.	0 0 1 0 0
1480	RUBB/1196	C.1920	Mid -shot photograph	8.2x10.8
Glass				
Negatives				
- Box				
1156 to			1197 Exterior showing	
1480	RUBB/1197	c.1920	towers. Mid -shot photograph	8.2x10.8
Glass				
Negatives				
- Box				
1156 to				
	1100 / 1100	~ 1020	1100 Dhotomi ang ang ang	8.2x10.8
1480	RUBB/1198	c.1920	1198 Photomicrograph.	8.2X10.8
Glass				
Negatives			1999 Graph. Imports from	
- Box			the USA of Carbon Black.	
1156 to			Long tons against carbon	
1480	RUBB/1199	c.1920	black, general.	8.2x10.8
			1200 Diagram. Channel	
			Process: lava tip, channel,	
			burner pipe, hopper car,	
			carbon black storage tank,	
Glass			elevator, burner buildings.	
Negatives			(If there is too much air,	
2				
- Box			the blanket lifts above the	
1156 to			flames and these will burn	
1480	RUBB/1200	c.1920	brightly and weaver).	8.2x10.8
Glass				
Negatives			1201 Flames in channel	
- Box			process plant. Each flame is	
1156 to			a miniature carbon black	
1480	RUBB/1201	c.1920	factory. Close up photograph	8.2x10.8
Glass				
Negatives			1202 Drums in United's	
- Box			process for dry pelleting	
1156 to			carbon black. Mid -shot	
		a 1000		0 210 0
1480	RUBB/1202	c.1920	photograph	8.2x10.8
			1203 Diagram. Furnace	
Glass			Process (Combustion). The	
Negatives			temperature within the	
- Box			furnace is controlled by the	
1156 to			air-gas ratio.	
1480	RUBB/1203	c.1920	(Precipitator, gas air,	8.2x10.8
			, :- <u>-</u> , 900 0 ,	

			cooler, conveyor, cyclone	
			collectors, carbon black	
			storage tank).	
Glass				
Negatives				
- Box			1204 Aerial view showing	
1156 to			river. Rubber plant. Mid -	
1480	RUBB/1204	c.1920	shot photograph	8.2x10.8
Glass				
Negatives				
- Box				
1156 to				
1480	RUBB/1205	c.1920	1205 Diagram. Storage tank.	8.2x10.8
Glass				
Negatives				
- Box				
1156 to				
1480	RUBB/1206	c.1920	1206 Diagram.	8.2x10.8
			1207 Table Experimental Gas	
			Black. (From Anthracene oil	
Glass			E.P.C., sharp oil, tar	
Negatives			acids, anthracene oil	
- Box			filtered, coalite oil,	
1156 to			naphtalene crude; Vulc.	
1480	RUBB/1207	c.1920	Mins)).	8.2x10.8
Glass				
Negatives				
- Box			1208 Table. Experimental Gas	
1156 to	(Black. (Black and resilience	
1480	RUBB/1208	c.1920	<pre>% and abrasion ml/1000revs.)</pre>	8.2x10.8
Glass				
Negatives				
- Box				
1156 to		1000	1209 Tank. Close up	0 0 1 0 0
1480	RUBB/1209	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box			1011 Duilding contra such	
1156 to	1 1 1 / 1 ח ח ו ז ח	~ 1000	1211 Building works, rubber	0 210 0
1480 Glass	RUBB/1211	c.1920	plant. Mid -shot photograph	8.2x10.8
Negatives - Box			1212 Rubber laboratory,	
- Box 1156 to			interior. Mid -shot	
1156 to 1480	RUBB/1212	a 1020	photograph	8.2x10.8
Glass	NUDD/1212	C.1920	μιστοσταριι	0.2X10.0
Negatives				
- Box			1213 Equipment in rubber	
- BOX 1156 to			plant, interior. Mid -shot	
1480	RUBB/1213	c 1020	photograph	8.2x10.8
THON	NUDD/1213	C.1920	Γριιοτογταριι	U.ZXIU.O

Glass				
Negatives			1214 Press room for routine	
- Box			testing. Mill room for black	
1156 to			stocks. First Floor, Room D.	
1480	RUBB/1214	c 1920	Mid -shot photograph	8.2x10.8
Glass	RODD/1214	C.1720		0.210.0
Negatives				
- Box				
1156 to			1215 Testing room. Mid -shot	
1480	RUBB/1215	c 1920	photograph	8.2x10.8
Glass	1(000) 1210	0.1920		0.2810.0
Negatives				
- Box				
1156 to			1216 Workers in rubber	
1480	RUBB/1216	c.1920	plant. Mid -shot photograph	8.2x10.8
Glass	RODD/1210	C.1920		0.2810.0
Negatives				
- Box				
1156 to			1217 Testing room. Mid -shot	
1480	RUBB/1217	c.1920	photograph	8.2x10.8
Glass	RUDD/121/	C.1920	photograph	0.2810.0
Negatives				
- Box				
1156 to			1218 Testing room equipment.	
1480	RUBB/1218	c.1920	Mid -shot photograph	8.2x10.8
Glass	R0DD/1210	C.1920		0.2810.0
Negatives				
- Box				
1156 to			1219 Testing meters. Mid -	
1480	RUBB/1219	c.1920	shot photograph	8.2x10.8
Glass	RODD/1219	C.1720		0.210.0
Negatives				
- Box				
- BOX 1156 to			1220 Dinog Dubbor plant	
1480	RUBB/1220	c.1920	1220 Pipes. Rubber plant. Close up photograph	8.2x10.8
Glass	RUDD/1220	C.1920		0.2810.0
Negatives				
- Box			1001 Warbong in tanks Mid	
1156 to	1001 / 1001	~ 1020	1221 Workers in tanks. Mid -	0 010 0
1480 Glass	RUBB/1221	c.1920	shot photograph	8.2x10.8
Negatives - Box				
- Box 1156 to			1222 Jaboratory interior	
1480	ררר/ תםוום	a 1020	1222 Laboratory, interior.	8.2x10.8
Glass	RUBB/1222	c.1920	Mid -shot photograph	0.2X10.0
Negatives			1222 Monkons tosting of	
- Box 1156 to			1223 Workers testing on benches. Mid -shot	
	ררר/ תםוום	a 1020		0 2++10 0
1480	RUBB/1223	c.1920	photograph	8.2x10.8

Glass				
Negatives				
- Box			1224 Testing benches in	
- B0x 1156 to			rubber laboratory. Mid -shot	
		~ 1020		0 010 0
1480	RUBB/1224	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box			1225 Routine testing. First	
1156 to	(floor, Room Fb. Abrasion	
1480	RUBB/1225	c.1920	Tests. Mid -shot photograph	8.2x10.8
Glass				
Negatives				
- Box			1226 Routine testing. First	
1156 to			floor, Room Fa. Mid -shot	
1480	RUBB/1226	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box			1227 Advanced testing	
1156 to			laboratory. Mid -shot	
1480	RUBB/1227	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box			1228 Testing bench in	
1156 to			laboratory. Close up	
1480	RUBB/1228	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box			1229 Testing laboratory	
1156 to			(rubber plant). Mid -shot	
1480	RUBB/1229	c.1920	photograph	8.2x10.8
Glass	10000, 1000	0.1920		0.21110.0
Negatives				
- Box			1230 Equipment in	
1156 to			laboratory. Close up	
1480	RUBB/1230	c.1920	photograph	8.2x10.8
Glass	RODD/1230	C.1920		0.2810.0
Negatives			1021 Europhinental	
- Box			1231 Experimental	
1156 to		~ 1000	instruments in laboratory.	0 010 0
1480	RUBB/1231	c.1920	Close up photograph	8.2x10.8
Glass			1000 M	
Negatives			1232 Mezzanine floor, Room	
- Box			1a. Dynamic damping	
1156 to		1	apparatus. Mid -shot	0 0 1 0 0
1480	RUBB/1232	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box			1233 Women workers testing	
1156 to			and checking in laboratory.	
1480	RUBB/1233	c.1920	Close up photograph	8.2x10.8

Glass				
Negatives			1234 Graph. Back tritation	
- Box			of di-isobutylamine with	
1156 to			HCl. Cell volts against Mls	
1480	RUBB/1234	c.1920	N/1HCl Added.	8.2x10.8
Glass	10000/1201	0.1920		0.2810.0
Negatives				
- Box				
1156 to			1238 Portrait. Close up	
1480	RUBB/1238	c 1920	photograph	8.2x10.8
Glass	1(0DD/1200	C.1920		0.2810.0
Negatives				
- Box				
1156 to			1239 Portrait. Close up	
1480	RUBB/1239	c.1920	photograph	8.2x10.8
Glass	RUDD/1239	C.1920		0.2810.0
Negatives				
- Box				
- B0x 1156 to			1240 Portrait Close up	
1480	RUBB/1240	c.1920	1240 Portrait. Close up	8.2x10.8
	RUDD/1240	C.1920	photograph	0.2810.0
Glass				
Negatives - Box				
			1241 Changers but a Mid abot	
1156 to		- 1000	1241 Storage huts. Mid -shot	0 0 1 0 0
1480	RUBB/1241	c.1920	photograph	8.2x10.8
Glass				
Negatives			1040 Tratermenta in	
- Box			1242 Instruments in	
1156 to 1480	RUBB/1242	~ 1020	laboratory bench. Mid -shot	8.2x10.8
Glass	RUBB/1242	c.1920	photograph	0.2X10.0
Negatives				
- Box				
1156 to		- 1000	1243 Laboratory testing. Mid	0 0 1 0 0
1480	RUBB/1243	c.1920	-shot photograph	8.2x10.8
Glass				
Negatives				
- Box				
1156 to		- 1000	1244 Working laboratory. Mid	0 0 1 0 0
1480	RUBB/1244	c.1920	-shot photograph	8.2x10.8
Glass			1245 Table. Some sources of	
Negatives			lignin. (U.S. waste,	
- Box			tons).Represents at least	
1156 to		1	38,000,000 tons of lignin	0 0 1 0 0
1480	RUBB/1245	c.1920	per year.	8.2x10.8
Glass				
Negatives				
- Box				
1156 to		1	1246 Cutting the jungle. Mid	0 0 1 0 0
1480	RUBB/1246	c.1920	-shot photograph	8.2x10.8

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Glass				
Negatives				
- Box				
1156 to			1247 Aerial view of rubber	
1480	RUBB/1247	c.1920	plant. Mid -shot photograph	8.2x10.8
Glass				
Negatives				
- Box				
1156 to			1248 Table. Lignin. Some	
1480	RUBB/1248	c.1920	proposed formulae.	8.2x10.8
Glass				
Negatives				
- Box			1249 Formula. Coniferyl	
1156 to			alcohol. Vainillin and	
1480	RUBB/1249	c.1920	syringaldehyde.	8.2x10.8
Glass	10000/1010	0.1920		0.21110.0
Negatives				
- Box				
1156 to			1250 Braun's formula.	
1480	RUBB/1250	c.1920	Lignin.	8.2x10.8
	RUDD/12JU	C.1920		0.2X10.0
Glass				
Negatives				
- Box				
1156 to				
1480	RUBB/1251	c.1920	1251Photomicrograph.	8.2x10.8
Glass				
Negatives				
- Box				
1156 to			1252 Sphere close up. Close	
1480	RUBB/1252	c.1920	up photograph	8.2x10.8
Glass				
Negatives				
- Box			1253 Table. Lignin in SKB	
1156 to			Rubber. (Parts per 100	
1480	RUBB/1253	c.1920	rubber)	8.2x10.8
Glass				
Negatives			1254 Graph. Tensile strength	
- Box			and modulus TS; M lb/in2	
1156 to			against Lignin parts per	
1480	RUBB/1254	c.1920	weight.	8.2x10.8
Glass			1255 Bar chart. Tensile	
Negatives			strength, 38.5 volume	
- Box			loading; Lignin and other	
1156 to			fillers in GR-S. (lb.per	
1480	RUBB/1255	c 1920	sq.in.)	8.2x10.8
Glass		C.1920	54.711.1	0.2A10.0
			1256 Day obart maar	
Negatives			1256 Bar chart. Tear	
- Box			resistance, 38.5 volume	
1156 to		1.000	loading; lignin and other	0 0 1 0 0
1480	RUBB/1256	c.1920	fillers in GR-S. (lb.per.in)	8.2x10.8

~ 1				1
Glass			1257 Bar chart. Lignin and	
Negatives			carbon black in GR-S:	
- Box			Properties of vulcanisates.	
1156 to			(Tens. Str., tear.,	
1480	RUBB/1257	c.1920	abrasion, hardness).	8.2x10.8
Glass				
Negatives				
- Box			1258 Table. Air oxidation of	
1156 to			lignin. (Lignin Unoxidised	
1480	RUBB/1258	c 1920	and Oxidised)	8.2x10.8
Glass	10000/1200	0.1920		0.2810.0
Negatives				
– Box			1050 mable Owidicad light	
			1259 Table. Oxidised lignin	
1156 to		1	in GR-S, R.R.C. standards	
1480	RUBB/1259	c.1920	tread.	8.2x10.8
			1260 Table. Oxidised lignin	
Glass			in sole stock of GR-S,	
Negatives			Coloured with titanium oxide	
- Box			25, iron oxide 10.	
1156 to			Comparison with carbon	
1480	RUBB/1260	c.1920	black.	8.2x10.8
Glass	- ,			
Negatives			1261 Table. Intrinsic	
- Box			viscosity of GR-S samples.	
			Air-oven heated at 60 oC and	
1156 to		1000		0 0 1 0 0
1480	RUBB/1261	c.1920	70 oC. (Hours aged at 60 oC)	8.2x10.8
Glass				
Negatives			1262 Table. Cold milling	
- Box			breakdown of stabilised GR-	
1156 to			S. Mooney viscosity.	
1480	RUBB/1262	c.1920	(Milled, mins.)	8.2x10.8
			1263 Table. Ageing of RRC	
Glass			standard GR-S tread. (%	
Negatives			retention of property). The	
- Box			roof exposed lignin sample	
1156 to			showed less sun-cracking,	
1480	RUBB/1263	c.1920	and retains better gloss.	8.2x10.8
Glass		5.1720	10001110 200001 91000.	J. 2221 J. O
Negatives				
-			1264 moble timeir in	
- Box			1264 Table. Lignin in	
1156 to		1	natural rubber. (Filler; TS,	0 0 1 0 0
1480	RUBB/1264	c.1920	tear, abrasion, resil).	8.2x10.8
Glass				
Negatives				
- Box				
1156 to			1265. View of the city. Mid	
1480	RUBB/1265	c.1920	-shot photograph	8.2x10.8
	<u></u>			
Glass				
Negatives			1268 Film. Rubber plant,	
- Box	RUBB/1268	c.1920	tanks. Mid -shot photograph	8.2x10.8
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1156 to				
1480				
1480				
Glass				
Negatives				
- Box			1269 Film. Rubber plant,	
1156 to			interior storage tanks. Mid	
1480	RUBB/1269	c.1920	-shot photograph	8.2x10.8
Glass				
Negatives				
- Box			1270 Rubber plant	
1156 to			production. Mid -shot	
1480	RUBB/1270	c.1920	photograph	8.7x11.8
Glass	11022, 22, 0	0.1910	[[] [] [] [] [] [] [] [] [] [
Negatives				
- Box			1071 Instruments and	
-			1271 Instruments and	
1156 to		1	equipment. Close up	
1480	RUBB/1271	c.1920	photograph	8.2x11.8
Glass				
Negatives				
- Box			1272 Rubber plant,	
1156 to			machinery. Close up	
1480	RUBB/1272	c.1920	photograph	8.2x11.8
Glass				
Negatives				
- Box				
1156 to			1272 Equipment Class up	
	ר ר (1 - 1 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -	~ 1020	1273 Equipment. Close up	0 011 0
1480	RUBB/1273	c.1920	photograph	8.2x11.8
Glass				
Negatives				
- Box				
1156 to			1274 Rubber tanks. Mid -shot	
1480	RUBB/1274	c.1920	photograph	8.2x11.8
Glass				
Negatives				
- Box				
1156 to			1275 Rubber plant production	
1480	RUBB/1275	c.1920	line. Mid -shot photograph	8.2x11.8
Glass		C.1720	TIME. MIG SHOE PHOEOGraph	0.2711.0
Negatives				
- Box				
1156 to	· · ·		1279 Tree for tapping. Mid -	
1480	RUBB/1279	c.1920	shot photograph	8.2x10.8
Glass				
Negatives				
- Box				
1156 to			1280 Tree with disease.	
1480	RUBB/1280	c.1920	Close up photograph	8.2x10.8

Class				
Glass				
Negatives				
- Box			1281 Extracting rubber in	
1156 to			the jungle. Mid -shot	
1480	RUBB/1281	c.1920	photograph	8.2x10.8
Glass				
Negatives				
- Box				
1156 to			1282 Hut in the jungle. Mid	
1480	RUBB/1282	c 1920	-shot photograph	8.2x10.8
Glass	1(000) 1202	C.1 <i>J</i> 20		0.210.0
Negatives				
- Box				
1156 to			1283 Drying huts in the	
1480	RUBB/1283	c.1920	jungle. Mid -shot photograph	8.2x10.8
Glass				
Negatives				
- Box			1284 Rubber tanks in huts in	
1156 to			the jungle. Mid -shot	
1480	RUBB/1284	c 1920	photograph	8.2x10.8
	KUDD/1204	C.1920		0.2810.0
Glass				
Negatives				
- Box				
1156 to			1285 Rubber workers in the	
1480	RUBB/1285	c.1920	jungle. Mid -shot photograph	8.2x10.8
Glass				
Negatives				
- Box				
1156 to			1286 Film. Diagram. Fig.1	
1480	RUBB/1286	c.1920	Hardness gauge without foot.	7.5x9.1
	1(000) 1200	C.1920	nardness gauge without 100t.	7.JA9.1
Glass				
Negatives				
- Box			1287 Film. Graph.	
1156 to			Indentation (mm/100) against	
1480	RUBB/1287	c.1920	Diameter (cm).	7.5x9.1
Glass				
Negatives				
- Box				
1156 to			1288 Film. Diagram. Fig.3	
1480	RUBB/1288	c.1920	Errors in "Foot" test.	7.5x9.1
Glass	100011200		BITOLO IN FOOL CESC.	/ • JAJ • 1
Negatives			1289 Film. Fig.4 Bar chart.	
- Box			Variation between	
1156 to	_		laboratories. (With and	
1480	RUBB/1289	c.1920	without vibration).	7.5x9.1
Glass				
Negatives				
- Box				
1156 to			1290 Film. Bar chart. Fig.5	
1480	RUBB/1290	c.1920	Replicate. Variation.	7.5x9.1
1100	1/00/1730	C.1920	Inchine variation.	1.JA9.1

Glass				
Negatives			1201 Eilm Graph Eig 1	
-			1291 Film. Graph. Fig.1.	
- Box			Tensile strength (lb/sq.in)	
1156 to		1000	against days scale for B and	
1480	RUBB/1291	c.1920	С.	7.5x9.1
Glass				
Negatives				
- Box			1292 Film. Graph. Elongation	
1156 to			(%) against days scale for B	
1480	RUBB/1292	c.1920	and C.	7.5x9.1
Glass				
Negatives			1293 Film. Graph. Fig.3.	
- Box			Modulus of 100% extension	
1156 to			against days scale for A and	
1480	RUBB/1293	c.1920	C and for B.	7.5x9.1
Glass				
Negatives				
- Box			1294 Film. Diagram. Fig.4.	
1156 to			Gas exit and film for	
1480	RUBB/1294	c 1920	modulus measurement.	7.5x9.1
Glass	10000/1291	0.1920	modulus medsulemente.	1.049.1
Negatives				
- Box			1295 Film. Graph. Fig.5.	
1156 to			Stiffening (%) against Days	
		- 1000		7 50 1
1480	RUBB/1295	C.1920	exposure.	7.5x9.1
Glass				
Negatives				
- Box			1296 Film. Function graph.	
1156 to			Fig.6. Absorption (%)	
1480	RUBB/1296	c.1920	against wave numbers (cm-1)	7.5x9.1
Glass				
Negatives			1297 Film. Diagram. Fig.2.	
- Box			Distance between glass	
1156 to			plates, microscope, region	
1480	RUBB/1297	c.1920	of focus of microscope.	8.5x9.1
Glass				
Negatives			1298 Film. Graph. Fig.3.	
- Box			Strength of bond against	
1156 to			(lb./sq.in.) No. of	
1480	RUBB/1298	c.1920	projecting fibre ends.	8.5x9.1
Glass				
Negatives			1299 Film. Graph. Fig.4. Log	
- Box			10 (lodd) against number of	
1156 to			fibre ends recover from	
1480	RUBB/1299	c.1920	adhesive.	8.5x9.1
Glass		C.1720	1315 Bar chart. Soling	0.011J.1
			stocks. (N=neosyl MH,	
Negatives				
- Box			S=stockalite, K= kieselguhr,	
1156 to		- 1000	M= mag carbonate and D=	0 0 1 0 0
1480	RUBB/1315	c.1920	devolite)	8.2x10.8

Glass				
			1216 Dar chart Coling	
Negatives			1316 Bar chart. Soling	
- Box			stocks and tensile strength,	
1156 to		- 1000	abrasion resistance and tear	0 0 1 0 0
1480	RUBB/1316	C.1920	resistance	8.2x10.8
Glass			1317 Graph. Stress-strain	
Negatives			curves for rubbers	
- Box			containing various amounts	
1156 to			of neosyl MH. Elongation %	
1480	RUBB/1316	c.1920	against Load kg/cm2.	8.2x10.8
Glass			1318 Bar chart. Mixings to	
Negatives			GD specification TG 25A	
- Box			quality "D". (N= 40 neosyl	
1156 to			MH + 5 zinc oxide; Z= 125	
1480	RUBB/1317	c.1920	zinc oxide)	8.2x10.8
Glass				
Negatives			1319 Bar chart. Plasticity	
- Box			and shield value of uncured	
1156 to			stocks.60 vols. filler per	
1480	RUBB/1319	c.1920	100 vols. Rubber.	8.2x10.8
Glass			1320 Bar chart. Cable	
Negatives			insulation stocks. (Tensile	
- Box			strength and breaking	
1156 to			elongation, BS Hardness	
1480	RUBB/1320	c.1920	number and Permanent set).	8.2x11.4
Glass	1(000) 1020	C.1920		0.2811.4
Negatives			1321 Diagram. Tubbing	
- Box			stocks. Deformation of	
- BOX 1156 to				
1480	1201 / תתוות	~ 1020	uncured stock on heating at 90 and 100 oC.	0 010 0
	RUBB/1321	C.1920		8.2x10.8
Glass			1322 Graph. Fig.1	
Negatives			Relationship between	
- Box			stripping load and cement	
1156 to			film. Film thickness (mils)	
1480	RUBB/1322	c.1920	against load (lbs.).	8.2x8.2
Glass				
Negatives			1323 Graph. Fig.2 Effect of	
- Box			temperature on bond strength	
1156 to			of GR-S cements. Load (lb)	
1480	RUBB/1323	c.1920	against temperature(oC).	8.2x8.2
Glass			1324 Graph. Fig.4. Effect of	
Negatives			stripping speed on bond	
- Box			strength of GR-S cements.	
1156 to			Speed (ins /min) against	
1480	RUBB/1324	c.1920	load (lbs).	8.2x8.2
Glass				
Negatives				
- Box				
1156 to			1325 Table. Resins in	
1480	RUBB/1325	c.1920	natural rubber cements.	8.2x8.2
- 100		3.1720	hadalat taxact comoned.	

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Glass				
Negatives				
- Box			1326 Table. GR-S cements.	
1156 to			Effect of mastication and	
1480	RUBB/1326	c.1920	peptising agents.	8.2x8.2
Glass				
Negatives				
- Box				
1156 to			1327 Table. GR-S cements.	
1480	RUBB/1327	c.1920	Various solvents.	8.2x8.2
Glass				
Negatives				
- Box				
1156 to			1328 Table. Vulcanising GR-S	
1480	RUBB/1328	c 1920	cements.	8.2x8.2
Glass	10000, 1000	0.1920		0.2110.2
Negatives				
- Box			1329 Table. Chloroprene	
1156 to			_	
		- 1000	polymer cements (Polymer,	0 0 0 0
1480	RUBB/1329	C.1920	Resin, Bond Strength bs).	8.2x8.2
Glass				
Negatives				
- Box			1330 Table. Resins in GR-S	
1156 to			cements. (Resin and Bond	
1480	RUBB/1330	c.1920	Strength or Film thickness).	8.2x8.2
Glass				
Negatives				
- Box				
1156 to			1331Table. Filler and resins	
1480	RUBB/1331	c.1920	in GR-S cements.	8.2x8.2
			1332 Graph. Fig.3.	
Glass			Relationship between load	
Negatives			and thickness of GR-S cement	
- Box			for different widths of test	
1156 to			piece. Thickness of film	
1480	RUBB/1332	c.1920	(mils) against load (lbs).	8.2x8.2
Glass	,			
Negatives				
- Box			1333 Table. Butadiene-	
1156 to			acrylonitrile polymer	
1480	RUBB/1333	c.1920	cements.	8.2x8.2
Glass	10011000	C.1720		0.240.2
Negatives				
-				
- Box				
1156 to		- 1000		
1480	RUBB/1334	c.1920	1334 Photomicrograph.	8.2x8.2
Glass				
Negatives				
- Box				
1156 to	RUBB/1335	c.1920	1335 Photomicrograph.	8.2x8.2

1480				
100				
Glass				
Negatives				
- Box				
1156 to			1336 Equipment. Close up	
1480	RUBB/1336	c.1920	photograph	8.2x8.2
Glass				
Negatives				
- Box				
1156 to			1337 Scales. Close up	
1480	RUBB/1337	c.1920	photograph	8.2x8.2
Glass				
Negatives				
- Box				
1156 to			1338 Scales and pendulum.	
1480	RUBB/1338	c.1920	Close up photograph	8.2x8.2
Glass				
Negatives				
- Box				
1156 to				
1480	RUBB/1339	c.1920	1339 Photomicrograph.	8.2x8.2
Glass				
Negatives				
- Box				
1156 to		1	1361 Film. Plant interior.	
1480	RUBB/1361	c.1920	Mid -shot photograph	8.2x10.8
Glass				
Negatives				
- Box				
1156 to		1 0 0 0	1362 Film. Equipment. Close	
1480	RUBB/1362	c.1920	up photograph	8.2x8.2
Glass				
Negatives				
- Box			1262 Film Mashingara	
1156 to		~ 1000	1363 Film. Machinery piece.	0 00 0
1480	RUBB/1363	c.1920	Close up photograph	8.2x8.2
Glass				
Negatives				
- Box			1264 Film Operations north	
1156 to	1 2 4 / 1 2 4	a 1020	1364 Film. Operations room.	8.2x10.8
1480	RUBB/1364	c.1920	Close up photograph	0.2X10.0
Glass				
Negatives			1265 Eilm Clarks share and	
- Box			1365 Film. Clarks shoes sole	
1156 to	1 י ר מחוזם	a 1020	template. Close up	8.2x9.5
1480	RUBB/1365	c.1920	photograph	0.2X9.3

Glass Negatives 1366 Film. Graph. Change of conductance with state of 1480 RUBB/1366 c.1920 curre 8.2x8.2 Glass 1367 Film. Graph. Negatives Conductance temperature 8.2x8.2 156 to User for EPC black in GR-s. 8.2x8.2 1156 to S. (Conductance against 8.2x8.2 1480 RUBB/1367 c.1920 temperature) 8.2x8.2 Glass Conductance temperature 8.2x8.2 Negatives Conductance-temperature 8.2x8.2 Glass Conductance-temperature 8.2x8.2 Negatives Conductance-temperature 8.2x10.8 Glass NUBB/1368 c.1920 rubber. 8.2x10.8 Negatives Conductance-temperature 8.2x8.2 Glass Conductance-temperature 8.2x8.2 Negatives Conductance-temperature 8.2x8.2 Glass Nuber. 8.2x8.2 8.2x8.2 Glass Nuber. 8.2x8.2 9.2x8.2 Glass Nuber. 8.2x8.2 9.2x8.2 Glass Nuber. 8.2x8.2 <td< th=""></td<>
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1156 toconductance with state of cure8.2x8.2Glass1367 Film. Graph. Conductance temperature curves for EPC black in GR- S. (Conductance temperature)8.2x8.2Glass1368 Film. Graph. Conductance temperature curves for EPC blacks of different particle size. 40 parts black in natural 14808.2x8.2GlassConductance-temperature curves for blacks of different particle size. 40 parts black in natural8.2x10.8GlassConductance-temperature curves for carbon black/silica mixtures in black/silica mixtures in schematic diagram of inlet8.2x8.2Glass1369 Film. Diagram. Fig.3. Schematic diagram of inlet H4808.2x8.2RUBB/1369c.1920natural rubber.8.2x8.2Glass1370 Film. Diagram. Fig.4 Plastics, January 1941. The method as applied to the coating of airscrews.8.2x8.2Glass1372 Film. Diagram. Kolofol parts black of application. (External and internal tass8.2x8.2Glass1373 Film. Diagram. Fig.1. Methods of application. (External and internal tass8.2x8.2Glass1373 Film. Diagram. Fig.1. method as applied to the coating of airscrews.8.2x8.2Glass1372 Film. Diagram. Fig.1. Methods of application. (External and internal tass8.2x10.8Glass1373 Film. Diagram. Fig.1. Methods of application. (External and internal tass8.2x10.8Glass1373 Film. Diagram. Fig.1. Methods of application. (External and internal tass8.2x10.8Glass1374 Film. Graph. Stress against strain. Fig.3. Typical
1480RUBB/1366c.1920cure8.2x8.2Glass1367Film. Graph. Conductance temperature curves for EPC black in GR- S. (Conductance against8.2x8.21480RUBB/1367c.1920temperature)8.2x8.2Glass1368Film. Graph. Conductance-temperature curves for blacks of different particle size. 408.2x10.8NegativesConductance-temperature curves for carbon8.2x8.2H480RUBB/1368c.1920rubber.NegativesConductance-temperature curves for carbon8.2x8.2NegativesConductance-temperature curves for carbon8.2x8.2156 to1370Film. Diagram. Fig.3.156 to1370Film. Diagram. Fig.4156 to1371Film. Diagram. Fig.4156 to1372Film. Diagram. Kolofol1480RUBB/1371c.1920coating of airscrews.Negatives1372Film. Diagram. Kolofol156 to1372Film. Diagram. Fig.1. Methods of application. (External and internal (Etternal and inter
Glass1367 Film. Graph. Conductance temperature curves for EPC black in GR- S. (Conductance against temperature)8.2x8.2I480RUBB/1367c.1920temperature)8.2x8.2GlassConductance-temperature curves for blacks of different particle size. 40 parts black in natural8.2x10.8GlassRUBB/1368c.1920rubber.8.2x10.8NegativesConductance-temperature curves for blacks of afts black in natural8.2x10.8GlassRUBB/1368c.1920rubber.8.2x10.8NegativesConductance-temperature curves for carbon black/silica mixtures in natural rubber.8.2x8.2GlassNegatives1370 Film. Diagram. Fig.3. Schematic diagram of inlet gland.8.2x8.2Glass1371 Film. Diagram. Fig.4 Plastics, January 1941. The method as applied to the coating of airscrews.8.2x8.2Glass1372 Film. Diagram. Kolofol process diagrammatic.8.2x10.8Negatives1373 Film. Diagram. Fig.1. Methods of application. (External and internal crimping)8.2x10.8Glass1373 Film. Diagram. Fig.1. Methods of application. (External and internal crimping)8.2x10.8
Negatives - BoxConductance temperature curves for EPC black in GR- S. (Conductance against1156 toRUBB/1367 c.1920temperature)8.2x8.2Glass1368 Film. Graph. Conductance-temperature8.2x8.2Negatives - Boxcurves for blacks of different particle size. 40 parts black in natural8.2x10.8GlassRUBB/1368 c.1920rubber.8.2x10.8Glass1369 Film. Graph. Conductance-temperature ourves for carbon8.2x8.2Glass1369 Film. Graph. Conductance-temperature curves for carbon8.2x8.2Glass1370 Film. Diagram. Fig.3. Schematic diagram of inlet8.2x8.2Glass1370 Film. Diagram. Fig.4 Plastics, January 1941. The method as applied to the 14808.2x8.2Glass1372 Film. Diagram. Kolofol 1372 Film. Diagram. Fig.1. Methods of application. (External and internal 14808.2x10.8Negatives1373 Film. Diagram. Fig.1. Methods of application. (External and internal 14808.2x10.8Glass1373 Film. Diagram. Fig.1. Methods of application. (External and internal 14808.2x10.8Glass1373 Film. Diagram. Fig.1. Methods of application. (External and internal 14808.2x10.8Glass1374 Film. Diagram. Fig.1. Methods of application. (External and internal 14808.2x10.8Glass1374 Film. Graph. Stress against strain. Fig.3. Typical stress-strain curves8.2x10.8
- Boxcurves for EPC black in GR- S. (Conductance against1156 toRUBB/1367 c.1920temperature)8.2x8.21368 Film. Graph.1368 Film. Graph.8.2x8.2GlassConductance-temperature curves for blacks of parts black in natural8.2x10.81480RUBB/1368 c.1920rubber.8.2x10.8Glass1369 Film. Graph.8.2x10.8GlassConductance-temperature curves for carbon black/silica mixtures in 14808.2x8.2Glass1369 Film. Diagram. Fig.3. Schematic diagram of inlet8.2x8.2Glass1370 Film. Diagram. Fig.3. Schematic diagram of inlet8.2x8.2Glass1371 Film. Diagram. Fig.4 Plastics, January 1941. The method as applied to the coating of airscrews.8.2x8.2Glass1372 Film. Diagram. Kolofol 1480RUBB/13721372 Film. Diagram. Fig.1. Methods of application. (External and internal (External and internal (Externa
1156 to 1480RUBB/1367S. (Conductance against temperature)8.2x8.261ass1368 Film. Graph. Conductance-temperature curves for blacks of different particle size. 40 parts black in natural8.2x10.861assRUBB/1368c.1920rubber.8.2x10.87 Box1369 Film. Graph. Conductance-temperature curves for carbon black/silica mixtures in natural rubber.8.2x8.21480RUBB/1369c.1920natural rubber.8.2x8.261assConductance-temperature curves for carbon black/silica mixtures in natural rubber.8.2x8.21480RUBB/1369c.1920natural rubber.8.2x8.261assI370 Film. Diagram. Fig.3. Schematic diagram of inlet H4808.2x8.28.2x8.261ass1371 Film. Diagram. Fig.4 Plastics, January 1941. The method as applied to the tass applied to the tass applied to the cating of airscrews.8.2x8.261ass1372 Film. Diagram. Kolofol process diagrammatic.8.2x10.861ass1373 Film. Diagram. Fig.1. Methods of application. (External and internal tass8.2x10.861ass1373 Film. Diagram. Fig.1. Methods of application. (External and internal tass8.2x10.861ass1374 Film. Diagram. Fig.1. Methods of application. (External and internal tass8.2x10.861ass1374 Film. Graph. Stress against strain. Fig.3. Typical stress-strain curves8.2x10.8
1480RUBB/1367c.1920temperature)8.2x8.2Glass1368Film. Graph. Conductance-temperature curves for blacks of parts black in natural8.2x8.21480RUBB/1368c.1920rubber.8.2x10.8Glass0rubber.8.2x10.8Negatives0rubber.8.2x8.2- Box1369Film. Graph. Conductance-temperature curves for carbon black/silica mixtures in natural rubber.8.2x8.2Glass00natural rubber.8.2x8.2Glass00natural rubber.8.2x8.2Glass00natural rubber.8.2x8.2Glass00natural rubber.8.2x8.2Glass00gland.8.2x8.2Glass00gland.8.2x8.2Glass00gland.8.2x8.2Glass00gland.8.2x8.2Glass00gland.8.2x8.2Glass00gland.8.2x8.2Glass00gland.8.2x8.2Glass00gland.8.2x8.2Glass001372Film. Diagram. Kolofol1480RUBB/1371c.1920coating of airscrews.8.2x10.8Glass01372Film. Diagram. Fig.1.Negatives1373rimenol of application.8.2x10.8Glass01374Film. Graph. StressNegatives1374Film. G
Glass1368 Film. Graph. Conductance-temperature curves for blacks of attributer particle size. 40Negativesattributer curves for blacks of parts black in natural1480RUBB/1368 c.1920rubber.Glass1369 Film. Graph. Conductance-temperature curves for carbon black/silica mixtures in natural rubber.1480RUBB/1369c.1920Glass0Negatives0- Box01156 to01480RUBB/1369Glass0Negatives0- Box01370 Film. Diagram. Fig.3. Schematic diagram of inlet1480RUBB/1370C.1920gland.Glass0Negatives1371 Film. Diagram. Fig.4 Plastics, January 1941. The method as applied to the the method as applied to the 1372 Film. Diagram. Kolofol1480RUBB/1372c.1920Glass0Negatives1372 Film. Diagram. Kolofol process diagrammatic.156 to1372 Film. Diagram. Fig.1. (External and internal (External and internal 1480RUBB/1373c.1920crimping)Glass0Negatives1374 Film. Graph. Stress against strain. Fig.3. Fig.3 Box1374 Film. Graph. Stress against strain. Fig.3. Fig.3.
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Negatives - Box 1156 tocurves for blacks of different particle size. 40 parts black in natural1480RUBE/1368 c.1920rubber.Glass1369 Film. Graph. Conductance-temperature curves for carbon black/silica mixtures in natural rubber.8.2x10.8156 to01369 Film. Graph. Conductance-temperature curves for carbon black/silica mixtures in natural rubber.8.2x8.2Glass01370 Film. Diagram. Fig.3. Schematic diagram of inlet Plastics, January 1941. The method as applied to the 14808.2x8.2Glass01372 Film. Diagram. Kolofol process diagrammatic.8.2x8.2Glass1372 Film. Diagram. Kolofol process diagrammatic.8.2x8.2Glass1372 Film. Diagram. Fig.1. methods of application. (External and internal 14808.2x10.8RUBB/1372c.1920coating of airscrews.8.2x10.8Glass1373 Film. Diagram. Fig.1. process diagrammatic.8.2x10.8Glass1373 Film. Diagram. Fig.1. process diagrammatic.8.2x10.8Glass1373 Film. Diagram. Fig.1. process diagrammatic.8.2x10.8Glass1373 Film. Diagram. Fig.1. process diagrammatic.8.2x10.8Glass1374 Film. Graph. Stress against strain. Fig.3. Typical stress-strain curves8.2x10.8
Negatives - Box 1156 tocurves for blacks of different particle size. 40 parts black in natural 1480RUBE/1368c.1920rubber.8.2x10.8Glass - Box 1156 to1369 Film. Graph. Conductance-temperature curves for carbon black/silica mixtures in natural rubber.8.2x8.2Glass - Box 1156 to01370 Film. Diagram. Fig.3. Schematic diagram of inlet Plastics, January 1941. The method as applied to the curses diagrammatic.8.2x8.2Glass - Box - Box1372 Film. Diagram. Kolofol process diagrammatic.8.2x8.2Glass - Box - Box1372 Film. Diagram. Kolofol process diagrammatic.8.2x8.2Glass - Box - Box1373 Film. Diagram. Fig.4 plastics, January 1941. The method as applied to the schars.8.2x8.2Glass - Box - Box - Box1372 Film. Diagram. Kolofol process diagrammatic.8.2x10.8Glass - Box - Box - Box1373 Film. Diagram. Fig.1. process diagrammatic.8.2x10.8Glass - Box - Box - Box1373 Film. Diagram. Fig.1. process diagrammatic.8.2x10.8Glass - Box - Box - Box1373 Film. Diagram. Fig.1. process diagrammatic.8.2x10.8Glass - Box - Box - Box - Box1374 Film. Graph. Stress against strain. Fig.3. - Typical stress-strain curves8.2x10.8
- Boxdifferent particle size. 40 parts black in natural1156 torubber.8.2x10.81480RUBB/1368 c.1920rubber.8.2x10.8Negatives1369 Film. Graph. Conductance-temperature curves for carbon8.2x8.2- Boxblack/silica mixtures in black/silica mixtures in schematic diagram of inlet8.2x8.2Glass1370 Film. Diagram. Fig.3. Schematic diagram of inlet8.2x8.2Glass1371 Film. Diagram. Fig.4 Plastics, January 1941. The method as applied to the8.2x8.2Glass1372 Film. Diagram. Fig.4 Plastics, January 1941. The method sa gaplied to the8.2x8.2Glass1372 Film. Diagram. Kolofol process diagrammatic.8.2x8.2Glass1372 Film. Diagram. Kolofol process diagrammatic.8.2x10.8Rubb/1372c.1920coating of airscrews.8.2x10.8Glass1373 Film. Diagram. Kolofol process diagrammatic.8.2x10.8Methods of application. (External and internal daga internal8.2x10.8Glass1373 Film. Diagram. Fig.1. process diagrammatic.8.2x10.8Seas1373 Film. Diagram. Fig.1. process diagrammatic.8.2x10.8Glass1373 Film. Diagram. Fig.1. process diagrammatic.8.2x10.8Seas1374 Film. Graph. Stress against strain. Fig.3. Typical stress-strain curves8.2x10.8
1156 to 1480RUBB/1368c.1920parts black in natural rubber.8.2x10.8Glass1369 Film. Graph. Conductance-temperature curves for carbon black/silica mixtures in natural rubber.8.2x8.2GlassRUBB/1369c.1920natural rubber.8.2x8.2GlassRUBB/1369c.1920natural rubber.8.2x8.2Glass1370 Film. Diagram. Fig.3. Schematic diagram of inlet8.2x8.2Glass1371 Film. Diagram. Fig.4 Plastics, January 1941. The method as applied to the8.2x8.2Glass1372 Film. Diagram. Kolofol8.2x8.2Glass1372 Film. Diagram. Kolofol8.2x8.2Glass1372 Film. Diagram. Kolofol8.2x10.8H480RUBB/1371c.1920coating of airscrews.8.2x10.8Glass1372 Film. Diagram. Kolofol8.2x10.8H480RUBB/1372c.1920process diagrammatic.8.2x10.8Glass1373 Film. Diagram. Fig.1. (External and internal (External and internal 14808.2x10.8Glass1374 Film. Graph. Stress against strain. Fig.3. Typical stress-strain curves8.2x10.8
1480RUBB/1368c.1920rubber.8.2x10.8Glass1369 Film. Graph. Conductance-temperature curves for carbon1369 Film. Graph. Conductance-temperature curves for carbon1156 toblack/silica mixtures in natural rubber.8.2x8.2GlassRUBB/1369c.1920natural rubber.Negatives1370 Film. Diagram. Fig.3. Schematic diagram of inlet8.2x8.2GlassRUBB/1370c.1920gland.8.2x8.2GlassRUBB/1370c.1920gland.8.2x8.2Glass1371 Film. Diagram. Fig.4 Plastics, January 1941. The method as applied to the tass8.2x8.2GlassRUBB/1371c.1920coating of airscrews.8.2x8.2Glass1372 Film. Diagram. Kolofol process diagrammatic.8.2x10.8Negatives1373 Film. Diagram. Fig.1. methods of application. (External and internal tast8.2x10.8GlassRUBB/1373c.1920crimping)8.2x10.8SeasSolassStartan. Fig.3. Typical stress-strain curves8.2x10.8
Glass Negatives - Box 1156 to1369 Film. Graph. Conductance-temperature curves for carbon black/silica mixtures in natural rubber.8.2x8.2Glass Negatives - Box 1156 to8.2x8.28.2x8.2Glass Negatives - Box 1156 to1370 Film. Diagram. Fig.3. Schematic diagram of inlet gland.8.2x8.2Glass Negatives - Box 1156 to1371 Film. Diagram. Fig.4 Plastics, January 1941. The method as applied to the coating of airscrews.8.2x8.2Glass Negatives - Box 1156 to1372 Film. Diagram. Kolofol process diagrammatic.8.2x10.8Glass Negatives - Box 1156 to1372 Film. Diagram. Kolofol process diagrammatic.8.2x10.8Glass Negatives - Box 1156 to1373 Film. Diagram. Fig.1. methods of application. (External and internal 1480 RUBB/1373 c.19208.2x10.8Glass Negatives - Box 1156 to1373 Film. Diagram. Fig.1. Methods of application. (External and internal 14808.2x10.8Glass - Box 1156 to1374 Film. Graph. Stress against strain. Fig.3. Typical stress-strain curves8.2x10.8
Negatives - BoxConductance-temperature curves for carbon black/silica mixtures in natural rubber.8.2x8.2GlassRUBB/1369c.1920natural rubber.8.2x8.2GlassNegatives - Box1370 Film. Diagram. Fig.3. Schematic diagram of inlet8.2x8.2GlassI370 Film. Diagram. Fig.3. Schematic diagram of inlet8.2x8.2GlassI371 Film. Diagram. Fig.4 Plastics, January 1941. The method as applied to the8.2x8.2GlassI372 Film. Diagram. Fig.4 Plastics, January 1941. The method as applied to the8.2x8.2GlassI372 Film. Diagram. Kolofol process diagrammatic.8.2x10.8GlassI373 Film. Diagram. Fig.1. Methods of application. (External and internal 14808.2x10.8GlassI374 Film. Graph. Stress against strain. Fig.3. Typical stress-strain curves8.2x10.8
- Box 1156 tocurves for carbon black/silica mixtures in natural rubber.8.2x8.2Glass Negatives - Box 1156 to1370 Film. Diagram. Fig.3. Schematic diagram of inlet gland.8.2x8.2Glass Negatives - Box 1156 to1370 Film. Diagram. Fig.3. Schematic diagram of inlet gland.8.2x8.2Glass Negatives - Box 1156 to1371 Film. Diagram. Fig.4 Plastics, January 1941. The method as applied to the 0 at sapplied to the8.2x8.2Glass Negatives - Box 1156 to1372 Film. Diagram. Kolofol process diagrammatic.8.2x8.2Glass Negatives - Box1373 Film. Diagram. Fig.1. Methods of application. (External and internal 1480 RUBB/13738.2x10.8Glass Negatives - Box1373 Film. Diagram. Fig.1. Methods of application. (External and internal 1374 Film. Graph. Stress against strain. Fig.3. Typical stress-strain curves8.2x10.8
1156 to 1480RUBB/1369c.1920black/silica mixtures in natural rubber.8.2x8.2Glass Negatives - Box1370Film. Diagram. Fig.3. Schematic diagram of inlet8.2x8.21356 to1370Film. Diagram. Fig.3. Schematic diagram of inlet8.2x8.21480RUBB/1370c.1920gland.8.2x8.2Glass01371Film. Diagram. Fig.4 Plastics, January 1941. The method as applied to the8.2x8.2Glass00001480RUBB/1371c.1920coating of airscrews.8.2x8.2Glass01372Film. Diagram. Kolofol process diagrammatic.8.2x10.8Glass1373Film. Diagram. Fig.1. Methods of application. (External and internal 14808.2x10.8Glass1374Film. Graph. Stress against strain. Fig.3. Typical stress-strain curves8.2x10.8
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- Box 1156 to 1480RUBB/1371c.1920Plastics, January 1941. The method as applied to the coating of airscrews.8.2x8.2GlassRUBB/1371c.1920coating of airscrews.8.2x8.2GlassIIIII- BoxIIIII1156 toIIIII1480RUBB/1372c.1920Process diagrammatic.8.2x10.8GlassIIIIINegativesIIII- BoxIIII1156 toIIII1480RUBB/1373c.1920crimping)8.2x10.8GlassIIIINegativesIIII- BoxIIII1480RUBB/1373c.1920crimping)8.2x10.8GlassIIIIINegativesIIII- BoxIIIIIf A Film. Graph. StressIIIIf A Film. Graph. StressIIII
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Glass				
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- Box			1396 Film. Workers in	
1156 to			storage unit. Mid -shot	
1480	RUBB/1396	c.1920	photograph	6.0x8.7
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- Box				
1156 to			1398 Film. Chart. Sources of	
1480	RUBB/1398	c.1920	information.	8.2x10.8
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Negatives				
- Box				
1156 to			1458 Film. Covering slides.	
1480	RUBB/1458	c.1920	Hand making of bulbs.	4.7x113
Glass	RODD/1400	C.1920	nand making of buibs.	4.78115
Negatives				
- Box				
1156 to			1459 Film. Covering slides.	
1480	RUBB/1459	c.1920	Hand making of bulbs.	1 7,,112
Glass	NUDD/1439	C.1920	nanu making of Duibs.	4.7x113
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1480	RUBB/1460	c.1920	Hand making of bulbs.	4.7x11.3
Glass				
Negatives				
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1156 to		a 1020	1461 Film. Covering slides.	1 711 2
1480	RUBB/1461	c.1920	Hand making of bulbs.	4.7x11.3
Glass				
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1480	RUBB/1462	c.1920	Blow moulding of bulbs.	4.7x1347

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1156 to			1468 Film. Seaming of	
1480	RUBB/1468	c.1920	tubing.	4.7x1347
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1156 to			1469 Film. Seaming of	
1480	RUBB/1469	c.1920	tubing.	4.7x1347
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1480	RUBB/1470	c.1920	tubing.	4.7x1347
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1480	RUBB/1474	c 1920	1474 Film. X-rays.	4.7x12.5
Glass	KODD/I4/4	C.1920	1474 FIIM. A Lays.	4.7812.5
Negatives				
- Box				
1156 to			1475 Film. Hot water	
1480	RUBB/1475	c 1920	bottles.	3.0x7.8
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Negatives				
- Box				
1156 to			1476 Film. Hot water	
1480	RUBB/1476	c 1920	bottles.	3.0x7.8
Glass	KODD/I4/0	C.1920	Doctres.	5.027.0
Negatives				
- Box				
1156 to			1477 Film. Hot water	
1480	RUBB/1477	c 1920	bottles.	3.0x7.8
Glass	KODD/I4//	C.1920	Doctres.	5.027.0
Negatives				
- Box				
- Box 1156 to				
1480	RUBB/1478	c 1920	1478 Film. Extruding.	3.0x7.8
Glass	KODD/I4/0	C.1920	1476 FIIM. Excluding.	5.027.0
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- вох 1156 to				
1480	RUBB/1480	c.1920	1480 Film. Extruding.	3.0x7.8
1400	NUDD/140U	C.1920	ITTOV FIIM. EXCLUDING.	J.UX/.0

Object no. 1994-224