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DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH

AND

FIRE OFFICES' COMMITTEE

JOINT FIRE RESEARCH ORGANIZATION

STATISTICAL ANALYSIS

OF

REPORTS OF FIRES ATTENDED BY

FIRE BRIGADES IN THE UNITED KINGDOM

DURING 1956

(Prepared by the Joint Fire Research Organization for the Home Office and the Scottish Home Department)

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PREFACE

Tables of statistics relating to fires attended by National and Local Authority Fire Services in the United Kingdom have been compiled annually for the Home Office since 1946 and have been available to Fire Brigades and certain other bodies with a direct interest in fire prevention and fire protection. Summary tables have also been published in the Annual Reports of the Joint Fire Research Organization.

From enquiries received by the Organization it has appeared that there may be an interest in the fuller fire statistics which is not catered for by the limited circulation referred to above and, with the agreement of the Home Office and Scottish Home Department, the tables for 1955 were made more generally available. The tables for 1956 contained in this volume are also generally available to interested persons.

By arrangement with the Home Office, the Scottish Home Department, and Local Authorities, a report is received on every fire attended by a Local Authority Fire Brigade in the United Kingdom. The tables are compiled from these reports. They do not give information on all the fires that occur, but they give an accurate assessment of all the fires to which Fire Brigades are called.

For the purpose of statistical analysis a one-in-four sample of reports received has been used. Details of the method of selecting the sample, and information on the possible sampling errors involved, are given in the Appendix.

The tables are divided into four sections. The first section provides a summary of the United Kingdom figures for the years 1952 - 1956. More detailed statistical information for 1956 is given in sections II, III, and IV for England and Wales, Scotland, and Northern Ireland respectively.

DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH AND FIRE OFFICES' COMMITTEE
JOINT FIRE RESEARCH ORGANIZATION

Statistics of fires attended by Fire Brigades in the United Kingdom

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SECTION I

Table 1

HAZARD IN WHICH FIRE STARTED

Reports from Fire Brigades in the United Kingdom, 1952-1956

Hazard in which fire started	No. of fires				
	1952	1953	1954	1955	1956
Fires in buildings					
Industrial and agricultural premises	8,588	8,080	8,290	9,408	9,564
Gas, water, electricity and sewage undertakings	224	215	212	192	228
Transport and communications	1,720	1,635	1,722	2,148	1,940
Commercial premises	3,640	3,470	3,508	3,872	3,808
Offices, Government and other	704	505	596	636	568
Navy, Army, Air Force and Fire Service establishments	420	330	442	432	440
Professional establishments, public institutions	1,852	1,475	1,740	1,816	1,916
Places of public entertainment	720	610	532	616	748
Private residential houses and flats	22,488	21,240	22,808	23,520	24,468
Clubs, hotels, restaurants, public houses	2,804	2,765	2,516	2,888	2,560
Other buildings	3,536	3,550	3,604	4,964	5,224
TOTAL FIRES IN BUILDINGS	46,696	43,875	45,970	50,492	51,464
Fires other than those in buildings					
Crops, standing or stooked, ricks, stacks, etc.	2,932	2,425	1,808	3,596	1,484
Grassland, heathland, railway embankments	19,252	17,285	14,940	35,636	38,680
Woods, forests, plantations	1,024	870	432	724	1,352
Other hazards of agriculture and forestry	3,608	3,440	2,862	5,572	5,256
Aircraft	140	90	142	100	116
Railway rolling stock, etc.	448	505	346	616	452
Road vehicles	6,524	6,760	6,602	7,920	7,792
Ships and river craft; marine structures	524	530	552	652	712
Refuse	4,416	4,755	4,600	7,340	7,096
Outdoor storage	2,120	2,155	2,078	3,620	3,584
Other fires	4,084	4,310	4,168	5,504	5,180
TOTAL FIRES OTHER THAN THOSE IN BUILDINGS	45,072	43,125	38,530	71,280	71,704
TOTAL FIRES ATTENDED	91,768	87,000	84,500	121,772	123,168

SECTION I

Table 2A

SUPPOSED CAUSES OF FIRES IN BUILDINGS

Reports from Fire Brigades in the United Kingdom, 1952-1956

Supposed cause of fire	No. of fires				
	1952	1953	1954	1955	1956
Ashes, soot	872	930	822	1,088	984
Brazier	76	90	100	68	152
Campfire, fire in open air[1]	...	...	-	12	12
Candle	356	340	364	308	380
Chimney on fire, not confined to chimney	2,556	2,610	3,168	3,164	3,148
Chimney, sparks from (outside building)	484	530	400	416	456
Cooker, cooking range, oven, other than electric, coal gas or oil.[1]	376	420	408	380	352
Electric cooker	804	930	924	976	1,184
fire, heater, radiator	1,148	1,045	1,190	1,416	1,288
iron	372	365	376	364	272
motor	324	295	256	268	324
refrigerator	1,124	1,025	916	880	752
wire and cable	2,728	2,825	2,630	2,536	2,416
wireless, television	584	560	592	540	604
other apparatus	924	970	1,298	1,772	1,792
Explosives, fireworks	232	190	280	272	268
Fire in grate igniting - bedding, clothing, linen, furniture and furnishings	1,044	1,035	1,178	1,064	1,124
structural timber under hearth	1,148	930	1,060	1,116	1,052
other materials	2,592	740	2,712	2,472	2,084
	3,888	4,085	2,752	2,724	2,728
Fish frying range (all fuels)	876	1,020	864	936	924
Flue	956	1,120	1,148	956	948
Furnace (coal or coke)	76	50	68	64	64
Gas (coal) burner, jet, ring	640	575	524	400	376
cooker	1,172	1,230	1,266	1,360	1,552
fire, heater, radiator	232	160	286	304	264
other apparatus	472	395	508	640	684
Incubator, brooder (all fuels)	496	650	582	720	764
Intentional burning of grassland, gorse, etc.	4	10	24	28	72
Lightning	196	145	60	104	132
Lime	12	5	16	-	12
Locomotives, sparks from	272	215	242	336	264
Malicious ignition,[1] [2]	184	155	228	244	312
Matches	852	760	770	924	844
Matches, children playing with	2,168	2,130	2,254	3,192	3,464
Mechanical heat or sparks	524	555	500	598	616
Metal, hot	268	185	240	212	148
Naked light[1] [3]	640	645	484	584	504
Oil blow lamp	800	890	1,058	1,036	1,204
engine (including petrol)	204	285	200	256	248
lamp, stove	880	725	1,034	1,224	1,844
tractor	100	95	102	80	76
other apparatus	180	170	236	200	308
Oxyacetylene cutting and welding apparatus	400	345	366	336	384
Rubbish burning	576	675	682	872	848
Slow combustion stove igniting structural woodwork	496	300	376	400	408
other materials	1,164	935	996	1,032	1,096
Smoking materials	3,876	3,640	3,714	4,412	4,440
Spontaneous combustion	216	150	192	364	160
Static electricity	8	35	34	36	20
Steam roller, engine, traction engine	-	10	4	-	-
Sun's rays	60	80	22	120	36
Taper, lighted paper or sticks	332	360	330	380	296
Taper, lighted paper or sticks, children playing with	96	85	128	156	148
Miscellaneous[4]	928	790	724	1,012	896
Unknown source of ignition	4,708	4,385	4,162	5,148	5,736
TOTAL FIRES IN BUILDINGS	46,696	43,875	45,970	50,492	51,464

Notes (1) Causes specified for the first time in the Annual Statistical Tables for 1954.
(2) Malicious ignition is a general heading for suspected or proven arson or incendiarism.
(3) No further information given in original reports.
(4) Not comparable with the miscellaneous category in Annual Statistical Tables for the years prior to 1954.

SECTION I

Table 2B

SUPPOSED CAUSES OF FIRES OTHER THAN THOSE IN BUILDINGS

Reports from Fire Brigades, in the United Kingdom, 1952-1956

Supposed cause of fire	No. of fires				
	1952	1953	1954	1955	1956
Aircraft, crashed	104	85	132	80	92
Ashes, soot	976	1,240	1,280	1,872	1,728
Brazier	152	120	148	168	196
Camp fire, fire in open air(1)	...	...	226	360	240
Candle	8	10	8	20	16
Chimney on fire not confined to chimney	-	-	-	4	12
Chimney, sparks from (outside building)	64	85	76	112	88
Cooker, cooking range, oven, other than electric, coal gas or oil(1)	20	25	12	16	16
Electric motor	32	65	50	36	32
wire and cable	3,140	2,885	2,966	2,724	2,812
other apparatus	384	625	532	1,056	1,120
Explosives, fireworks	492	410	506	708	620
Fish frying range (all fuels)	36	20	22	20	16
Flue	76	90	142	116	164
Furnace (coal or coke)	8	-	4	4	4
Gas (coal) apparatus	332	370	412	512	392
Incubator, brooder (all fuels)	4	20	26	20	16
Intentional burning of grassland, gorse, etc.	388	640	400	824	1,068
Lightning	100	35	60	52	48
Lime	44	60	28	12	20
Locomotives, sparks from	7,612	5,635	5,070	13,340	9,688
Malicious ignition(1) (2)	48	80	90	108	124
Matches	732	850	600	1,256	1,456
Matches, children playing with	8,512	8,440	8,088	15,368	18,220
Mechanical heat or sparks	324	400	458	604	516
Metal, hot	40	50	54	96	56
Naked light(1) (3)	904	855	508	1,252	1,376
Oil blow lamp	76	30	66	48	60
engine (including petrol)	2,160	2,420	2,150	2,784	2,432
lamp, stove	204	230	178	288	296
tractor	416	420	278	440	292
other apparatus	136	205	150	312	184
Oxyacetylene cutting and welding apparatus	264	360	352	432	476
Rubbish burning	4,052	3,640	3,214	6,940	6,420
Slow combustion stove	404	390	322	332	448
Smoking materials	4,804	4,255	3,238	7,060	6,508
Spontaneous combustion in rubbish	104	105	146	220	112
other materials	644	335	366	660	196
Static electricity	4	-	4	8	-
Steam roller engine, traction engine	4	5	12	24	16
Sun's rays	196	100	38	296	104
Taper, lighted paper or sticks	64	100	150	176	184
Taper, lighted paper or sticks, children playing with	56	40	18	52	84
Miscellaneous(4)	636	570	300	336	372
Unknown source of ignition	6,316	6,825	5,650	10,132	13,384
TOTAL FIRES OTHER THAN THOSE IN BUILDINGS	45,072	43,125	38,530	71,280	71,704

Notes (1) Causes specified for the first time in the Annual Statistical Tables for 1954.
(2) Malicious ignition is a general heading for suspected or proven arson or incendiarism.
(3) No further information given in original reports.
(4) Not comparable with the miscellaneous category in Annual Statistical Tables for the years prior to 1954.

SECTION I

Table 3A

METHOD OF EXTINCTION OF FIRES IN BUILDINGS

Reports from Fire Brigades in the United Kingdom, 1952-1956

	Method of extinction	Extinguished before arrival of Fire Brigade					Extinguished by Fire Brigade					Total				
		1952	1953	1954	1955	1956	1952	1953	1954	1955	1956	1952	1953	1954	1955	1956
1	Burned out	892	815	904	844	880	-	-	-	-	-	892	815	904	844	880
2	Removal	1,144	1,210	1,278	1,100	1,268	3,872	3,315	3,616	3,008	2,864	5,016	4,525	4,894	4,108	4,132
3	Automatic sprinkler system	12	25	42	60	48	-	-	-	-	-	12	25	42	60	48
4	Beating	240	170	240	316	204	52	50	54	64	68	292	220	294	380	272
5	Smothering	804	690	830	952	1,076	256	315	298	388	328	1,060	1,005	1,128	1,340	1,404
6	Sand, earth, etc.	156	175	130	188	140	48	55	38	44	80	204	230	168	232	220
7	Water from buckets	3,168	2,910	3,022	3,368	3,668	2,912	2,560	2,692	2,636	2,656	6,080	5,470	5,714	6,004	6,324
8	Water from stirrup or hand pumps	56	30	50	48	40	4,868	4,055	4,446	4,408	4,216	4,924	4,085	4,496	4,456	4,256
9	Chemicals and chemical extinguishers	1,276	1,125	1,216	1,148	1,232	2,156	2,000	1,862	1,916	1,856	3,432	3,125	3,078	3,064	3,088
10	Two or more methods 4 - 9	364	350	374	436	384	232	95	150	248	156	596	445	524	684	540
11	Water from garden hose	164	115	170	216	224	-	-	-	-	-	164	115	170	216	224
12	Hose reel jets (using water in tank only)	32	20	48	40	52	13,964	14,625	15,696	18,568	19,788	13,996	14,645	15,744	18,608	19,840
13	Hose reel jets (using more water than that in tank)	-	5	8	-	4	2,656	2,470	2,164	2,552	2,236	2,656	2,475	2,172	2,552	2,240
14	Jets from inside hose reel or inside hydrant	72	45	60	60	112	92	135	102	100	108	164	180	162	160	220
15	Hose reel jets and jets from inside hose reel or inside hydrant	-	-	2	-	-	12	35	8	28	36	12	35	10	28	36
16	Jets from pumps and hydrants	88	120	104	96	92	6,140	5,490	5,528	6,536	6,464	6,228	5,610	5,632	6,632	6,556
17	Other and undefined methods	452	455	450	616	656	516	415	388	508	528	968	870	838	1,124	1,184
18	TOTAL FIRES IN BUILDINGS	8,920	8,260	8,928	9,488	10,080	37,776	35,615	37,042	41,004	41,384	46,696	43,875	45,970	50,492	51,464

Notes on methods of extinction

1. "Removal" includes occurrences where (a) burning material was removed from the building (b) gas supply was turned off. If the burning material was tackled with methods 3-11 before removing it from the building, then such occurrences were classified under whichever of these methods applied.

2. Methods 11-15 and method 16 include those occurrences in which methods 3-10 and 3-15 respectively may also have been used.

3. "Fires extinguished by the Fire Brigade" include those fires which were tackled but not extinguished before the arrival of the Fire Brigade.

SECTION I

Table 3B

METHOD OF EXTINCTION OF FIRES OTHER THAN THOSE IN BUILDINGS

Reports from Fire Brigades in the United Kingdom, 1952-1956

	Method of extinction	Extinguished before arrival of Fire Brigade					Extinguished by Fire Brigade					Total				
		1952	1953	1954	1955	1956	1952	1953*	1954	1955	1956	1952	1953 *	1954	1955	1956
1	Burned out	1,020	1,065	1,276	1,572	1,720	-	-	-	-	-	1,020	1,065	1,276	1,572	1,720
2	Removal	364	355	394	508	416	676	720	732	728	664	1,040	1,075	1,126	1,236	1,080
3	Automatic sprinkler system	-	-	2	-	-	-	-	-	-	-	-	-	2	-	-
4	Beating	896	925	784	1,432	1,440	6,348	7,345	6,468	11,540	15,456	7,244	8,270	7,252	12,972	16,896
5	Smothering	360	400	366	428	428	92	45	60	56	52	452	445	426	484	480
6	Sand, earth, etc.	288	275	270	312	276	136	150	174	188	192	424	425	444	500	468
7	Water from buckets	848	865	750	1,160	1,136	636	345	428	620	616	1,484	1,210	1,178	1,780	1,752
8	Water from stirrup or hand pumps	-	10	10	12	16	316	255	190	340	348	316	265	200	352	364
9	Chemicals and chemical extinguishers	1,116	995	1,036	1,276	1,176	1,724	1,700	1,638	2,108	1,872	2,840	2,695	2,674	3,384	3,048
10	Two or more methods 4 - 9	272	285	236	316	260	504	485	326	880	1,020	776	770	562	1,196	1,280
11	Water from garden hose	92	70	58	120	96	-	-	-	-	-	92	70	58	120	96
12	Hose reel jets (using water in tank only)	96	125	150	200	380	17,132	16,700	15,444	31,552	32,120	17,228	16,825	15,594	31,752	32,500
13	Hose reel jets (using more water than that in tank)	4	5	6	8	-	1,916	1,495	1,202	2,896	2,076	1,920	1,500	1,208	2,904	2,076
14	Jets from pumps and hydrants	184	150	120	232	200	9,468	7,855	6,008	12,244	9,288	9,652	8,005	6,128	12,476	9,488
15	Other and undefined methods	344	335	258	356	316	240	170	144	196	140	584	505	402	552	456
16	TOTAL FIRES OTHER THAN THOSE IN BUILDINGS	5,884	5,860	5,716	7,932	7,860	39,188	37,265	32,814	63,548	63,844	45,072	43,125	38,530	71,280	71,704

Notes on methods of extinction

1. Methods 10-12 and method 13 include those occurrences in which methods 3-9 and 3-12 respectively may also have been used.

2. "Fires extinguished by the Fire Brigade" include those fires which were tackled but not extinguished before the arrival of the Fire Brigade.

* Revised figures.

SECTION I

Table 4

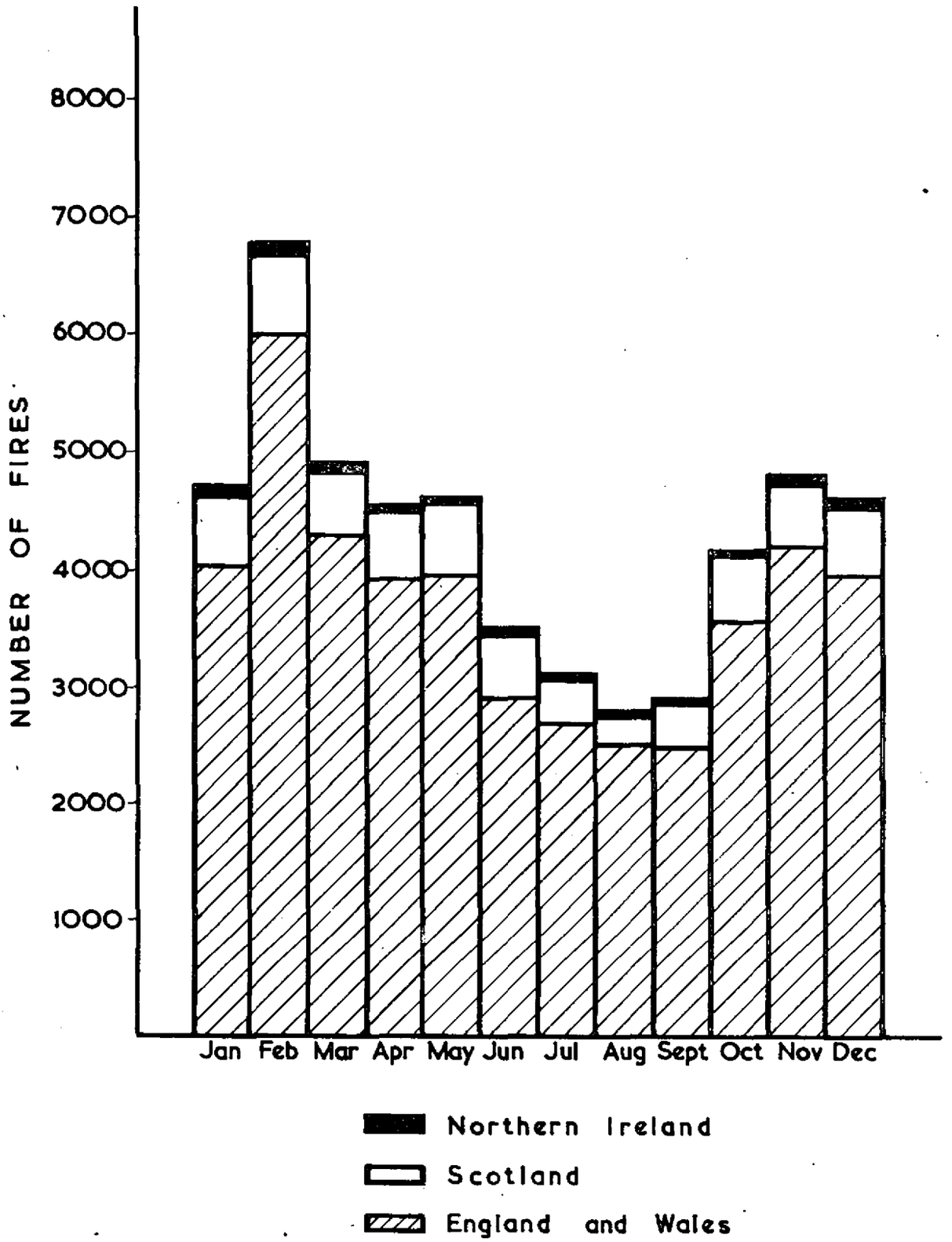
CASUALTIES IN FIRES

Reports from Fire Brigades in the United Kingdom, 1952-1956*

Casualties	England and Wales					Scotland					Northern Ireland					United Kingdom				
	1952	1953	1954	1955	1956	1952	1953	1954	1955	1956	1952	1953	1954	1955	1956	1952	1953	1954	1955	1956
Fatal casualties																				
Fire Brigade	-	3	3	2	2	-	-	-	-	-	-	-	-	-	-	-	3	3	2	2
Other casualties	581	377	423	574	461	49	46	67	50	61	6	37	2	7	5	636	460	492	631	527
Total	581	380	426	576	463	49	46	67	50	61	6	37	2	7	5	636 *	463 *	495 *	633 *	529 *
Non-fatal casualties																				
Fire Brigade	1,250	1,126	584 **	347 **	342 **	152	78	40 **	60 **	25 **	28	33	7 **	10 **	7 **	1,430	1,237	631 **	417 **	374 **
Other casualties	3,700	3,582	3,454	3,065	2,928	267	248	210	218	195	37	58	27	44	47	4,004	3,888	3,691	3,327	3,170
Total	4,950	4,708	4,038	3,412	3,270	419	326	250	278	220	65	91	34	54	54	5,434	5,125	4,322	3,744	3,544
Total casualties	5,531	5,088	4,464	3,988	3,733	468	372	317	328	281	71	128	36	61	59	6,070	5,588	4,817	4,377	4,073

* The number of fatalities is less than the number of deaths recorded by the Registrars General as being due to conflagration and accidental burns and scalds because although the Fire Brigades most probably attend all occurrences where persons are burnt to death by being trapped in burning buildings, etc., they only attend a proportion of the much larger number of incidents where deaths due to accidental burns and scalds occur.

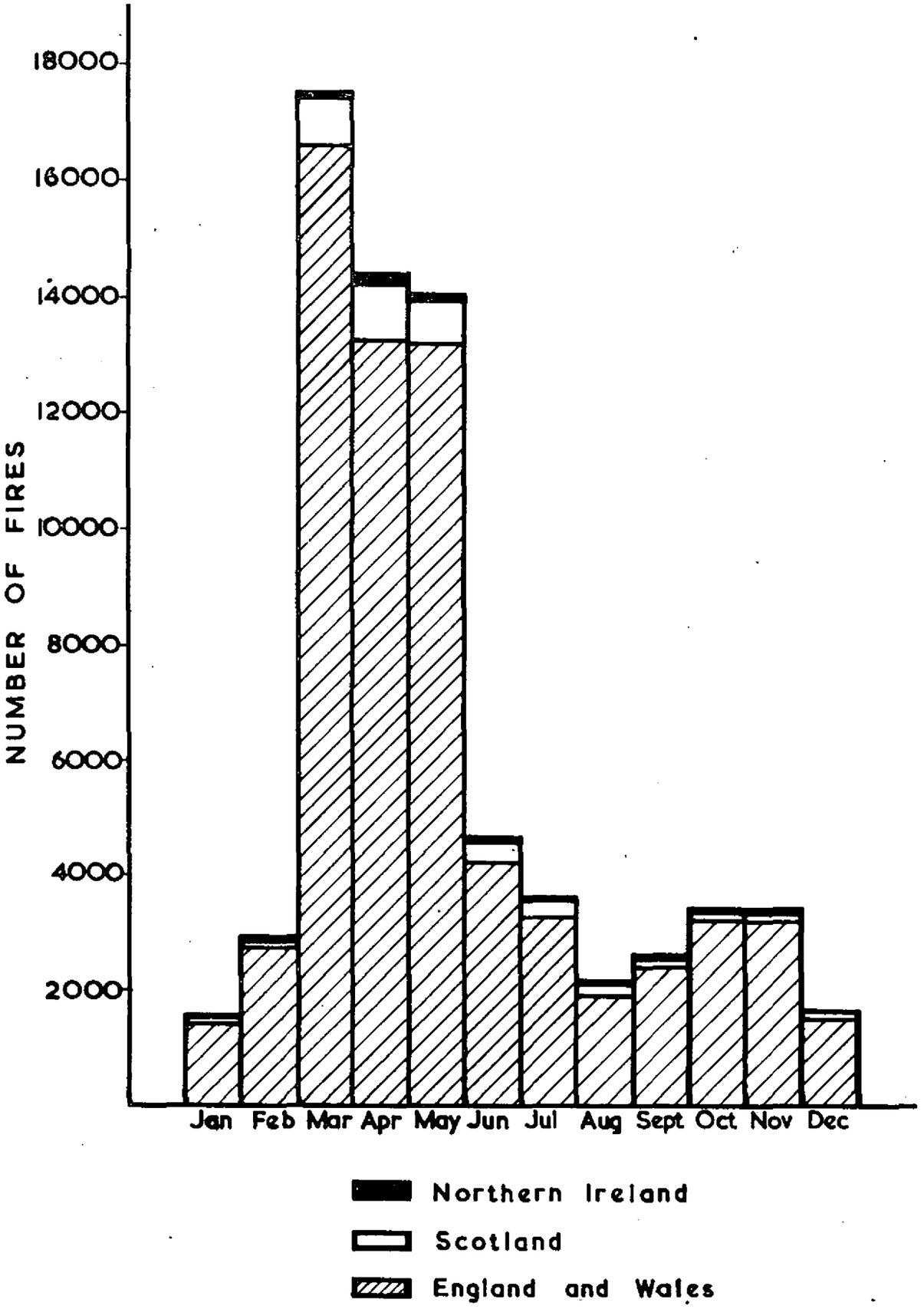
** Change in reporting procedure excludes casualties requiring first-aid treatment only in 1954 and subsequent years.



REPORTS FROM FIRE BRIGADES IN THE UNITED KINGDOM 1956

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four).

FIG. 1. FIRES IN BUILDINGS CLASSIFIED ACCORDING TO THE MONTH IN WHICH THEY OCCURRED



REPORTS FROM FIRE BRIGADES IN THE UNITED KINGDOM 1956

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four.).

FIG. 2. FIRES OTHER THAN THOSE IN BUILDINGS CLASSIFIED ACCORDING TO THE MONTH IN WHICH THEY OCCURRED

SECTION II

STATISTICAL TABLES FOR FIRE BRIGADES IN ENGLAND AND WALES, 1956

Table 1

METHOD OF CALLING FIRE BRIGADES TO FIRES

Reports from England and Wales, 1956

(Frequencies obtained by multiplying results of analysis of a one in four sample of reports by four)

Method of Calling	County Fire Brigades																												
	Anglesey	Bedfordshire	Berkshire and Reading C.B.	Breconshire and Radnorshire	Buckinghamshire	Caernarvonshire	Cambridgeshire	Cardiganshire and Carmarthenshire	Cheshire	Cornwall	Cumberland	Denbighshire and Montgomeryshire	Derbyshire	Devonshire	Dorsetshire	Durham	Ely, Isle of	Essex	Flintshire	Glamorganshire	Gloucestershire	Hampshire	Herefordshire	Hertfordshire	Huntingdonshire	Kent and Canterbury	Lancashire	Leicestershire and Rutland	Lincolnshire, Holland	Lincolnshire, Kesteven	Lincolnshire, Lindsey
By Special Fire Service methods																														
Automatic fire alarm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-
Fire and police pillar box	-	-	4	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Police telephone	4	92	60	-	40	-	24	36	36	-	-	-	44	8	12	4	-	44	-	20	-	8	-	64	-	36	20	40	4	-	36
Private fire telephone	4	8	12	-	12	-	-	4	80	12	-	-	40	-	-	56	-	80	-	16	4	16	-	12	-	108	76	-	-	-	-
Street fire alarm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	84	-	-	-	-	-	-	-	-	-	4	4	-	-
Total	8	100	76	-	52	-	24	40	116	12	-	-	88	8	20	60	-	208	-	36	4	24	-	80	-	144	96	44	8	-	36
Exchange telephone	108	600	1,008	108	1,000	324	304	448	2,132	688	392	488	1,060	1,164	1,020	1,328	172	3,852	368	1,364	844	2,700	240	1,868	152	3,852	4,484	412	164	212	492
Running call	16	48	36	16	52	16	24	60	100	36	60	92	80	20	60	196	12	244	28	136	36	68	12	120	28	180	280	56	8	12	24
Late call	8	12	32	4	32	16	-	16	16	4	8	28	28	12	12	40	-	152	4	76	4	400	-	48	12	200	144	12	4	4	12
Other and undefined methods	4	4	20	-	12	8	-	4	-	8	20	-	4	8	196	44	-	32	4	16	8	-	8	12	4	44	48	-	-	-	8
Total fires attended	144	764	1,172	128	1,148	364	352	568	2,364	748	480	608	1,260	1,212	1,308	1,668	184	4,488	404	1,628	896	3,192	260	2,128	196	4,420	5,052	524	184	228	572

SECTION II

Table 1 (contd.)

METHOD OF CALLING FIRE BRIGADES TO FIRES

Reports from England and Wales, 1956

(Frequencies obtained by multiplying results of analysis of a one in four sample of reports by four)

Method of Calling	County Fire Brigades (Contd.)																								
	London	Merioneth	Middlesex	Monmouthshire	Norfolk	Northamptonshire	Northumberland	Nottinghamshire	Oxfordshire	Pembrokeshire	Peterborough, Soke of	Salop	Scilly, Isles of	Somersetshire	Staffordshire	Suffolk and Ipswich C.B.	Surrey	Sussex, East	Sussex, West	Warwickshire	Westmorland	Wight, Isle of	Wiltshire	Worcestershire and Worcester C.B.	Yorkshire East Riding	Yorkshire North Riding	Yorkshire West Riding
By Special Fire Service methods																										
Automatic fire alarm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fire and police pillar box	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	12	-	4	-	-	-	-	-	-	-	-	4
Police telephone	20	4	20	-	-	24	28	8	8	-	20	16	-	32	100	88	84	8	28	36	4	4	28	36	-	24	80
Private fire telephone	128	-	64	4	-	-	4	4	-	-	-	24	-	4	4	4	24	-	-	8	-	-	-	4	-	100	8
Street fire alarm	108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-
Total	256	4	84	4	-	24	32	12	8	-	20	40	-	36	108	104	108	12	28	52	4	4	28	40	-	124	92
Exchange telephone	8,088	88	4,364	552	896	416	700	1,232	392	152	88	620	-	924	1,568	912	4,664	1,120	876	1,144	72	228	724	964	244	584	2,608
Running call	576	4	256	40	60	32	92	68	40	4	16	28	-	40	160	60	196	64	32	48	8	8	44	48	16	60	192
Late call	564	4	424	4	4	4	4	68	-	4	16	68	-	8	44	8	140	12	20	64	-	8	44	32	4	56	72
Other and undefined methods	32	-	-	-	20	8	4	12	-	-	-	4	-	-	4	16	16	20	4	20	20	-	4	12	4	-	36
Total fires attended	9,516	100	5,128	600	980	484	832	1,392	440	160	140	760	-	1,008	1,884	1,100	5,124	1,228	960	1,328	104	248	844	1,096	268	824	3,000

SECTION II

Table 1 (Contd.)

METHOD OF CALLING FIRE BRIGADES TO FIRES

Reports from England and Wales, 1956

(Frequencies obtained by multiplying results of analysis of a one in four sample of reports by four)

Method of Calling	County Borough Fire Brigades																								
	Barnsley	Barrow in Furness	Bath	Birkenhead	Birmingham	Blackburn	Blackpool	Bolton	Bootle	Bournemouth	Bradford	Brighton	Bristol	Burnley	Burton on Trent	Bury	Cardiff	Carlisle	Chester	Coventry	Croydon	Darlington	Derby	Dewsbury	Doncaster	Dudley	Eastbourne
By Special Fire Service methods																											
Automatic fire alarm	-	-	-	-	4	-	-	-	-	-	4	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-
Fire and police pillar box	-	-	12	4	-	32	12	44	20	4	-	-	-	20	8	8	8	-	-	8	4	-	8	8	20	8	-
Police telephone	16	60	16	40	184	32	12	12	24	20	80	80	92	8	-	20	84	32	12	104	16	24	24	24	20	20	-
Private fire telephone	-	4	-	16	60	-	24	-	24	-	-	-	20	8	4	12	-	4	4	16	12	60	-	-	-	-	4
Street fire alarm	-	-	-	-	144	-	-	-	-	-	-	12	-	-	-	-	24	-	-	-	-	-	-	-	-	-	-
Total	16	64	28	60	392	64	48	56	68	24	84	92	112	36	12	40	120	36	16	128	32	84	32	32	40	28	4
Exchange telephone	104	184	156	424	2,032	192	300	304	200	476	484	308	992	216	64	144	448	128	172	616	372	116	252	112	132	148	124
Running call	-	24	8	32	204	16	36	-	44	20	24	20	72	4	-	12	24	8	20	16	24	-	12	16	12	16	8
Late call	-	-	8	4	116	12	16	20	28	-	20	8	68	8	12	-	8	8	8	-	76	-	16	-	20	4	12
Other and undefined methods	-	-	4	8	16	-	4	4	-	-	16	-	-	-	-	-	4	-	-	8	12	-	4	-	-	4	20
Total fires attended	120	272	204	528	2,760	284	404	384	340	520	628	428	1,244	264	88	196	604	180	216	768	516	200	316	160	204	200	168

SECTION II

Table 1 (Contd.)

METHOD OF CALLING FIRE BRIGADES TO FIRES

Reports from England and Wales, 1956

(Frequencies obtained by multiplying results of analysis of a one in four sample of reports by four)

Method of Calling	County Borough Fire Brigades (Contd.)																								
	East Ham	Exeter	Gloucester	Great Yarmouth	Grimsby	Halifax	Hastings	Huddersfield	Kingston upon Hull	Leeds	Leicester	Lincoln	Liverpool	Manchester	Merthyr Tydfil	Middlesbrough	Newcastle upon Tyne and Gateshead	Newport (Mon.)	Northampton	Norwich	Nottingham	Oldham	Oxford	Plymouth	Portsmouth	Preston	Rochdale
By Special Fire Service methods																											
Automatic fire alarm	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fire and police pillar box	-	4	-	-	-	-	-	16	-	-	-	-	-	4	-	-	84	-	-	44	-	8	-	-	-	-	12
Public telephone	4	32	-	24	24	32	16	28	92	136	64	32	220	256	8	88	92	52	40	44	68	28	24	44	40	-	16
Private fire telephone	12	-	-	-	4	4	-	-	-	-	8	-	40	12	-	-	4	-	-	-	24	-	-	20	24	-	-
Street fire alarm	-	-	-	-	-	-	-	-	-	-	-	-	240	112	-	24	-	-	-	-	-	-	-	-	-	-	-
Total	16	36	-	24	28	36	16	44	100	136	72	32	500	384	8	112	180	52	40	88	92	36	24	64	64	-	28
Exchange telephone	188	184	156	76	152	152	124	180	472	744	556	176	1,292	1,376	60	212	552	260	124	220	608	248	152	284	352	260	224
Running Call	4	16	4	20	12	16	4	4	16	28	16	8	160	120	16	12	12	24	8	4	12	8	-	20	28	24	4
Late call	36	-	-	-	-	4	4	8	28	24	4	-	148	168	4	16	4	4	-	8	24	8	4	12	12	8	20
Other and undefined methods	-	-	-	8	12	-	-	-	4	4	8	4	-	20	4	4	4	-	4	4	4	-	-	-	-	-	-
Total fires attended	244	236	160	128	204	208	148	236	620	936	656	220	2,100	2,068	92	356	752	340	176	324	740	300	180	380	456	292	276

SECTION II

Table 1 (Contd.)

METHOD OF CALLING FIRE BRIGADE TO FIRES

Reports from England and Wales, 1956

(Frequencies obtained by multiplying results of analysis of a one in four sample of reports by four)

Method of Calling	County Borough Fire Brigades (Contd.)																						Total fires attended in England and Wales	
	Rotherham	St. Helens	Salford	Sheffield	Smethwick and West Bromwich	Southampton	Southend	Southport	South Shields	Stockport	Stoke on Trent	Sunderland	Swansea	Tynemouth	Wakefield	Wallasey	Walsall	Warrington	West Ham	West Hartlepool	Wigan	Wolverhampton	York	No.	Per Cent
By Special Fire Service methods																								
Automatic Fire alarm	-	-	-	-	-	-	-	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	-
Fire and police pillar box	8	-	-	116	-	-	-	4	-	16	-	-	-	4	8	12	28	-	-	12	-	12	-	652	0.6
Police telephone	16	24	96	16	36	4	24	16	72	20	20	76	48	48	36	28	48	28	4	12	28	40	20	4,652	4.2
Private fire telephone	-	-	16	-	12	36	-	-	-	-	-	-	-	4	-	24	-	-	12	-	-	4	-	1,456	1.3
Street fire alarm	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	4	792	0.7
Total	24	24	112	132	60	40	24	24	76	36	20	76	48	56	44	64	76	28	20	24	28	56	24	7,584	6.8
Exchange telephone	124	184	236	576	252	600	220	176	156	276	392	348	340	112	84	196	164	160	536	160	164	264	164	92,036	82.8
Running call	-	28	12	24	44	28	24	4	16	36	52	12	32	12	4	4	32	16	56	28	8	16	8	6,116	5.5
Late call	20	4	32	12	12	4	8	12	-	20	16	4	-	-	4	24	40	-	32	8	-	4	-	4,292	3.9
Other and undefined methods	4	4	8	-	4	96	4	4	-	4	8	-	4	4	4	-	16	-	-	-	4	16	-	1,124	1.0
Total fires attended	172	244	400	744	372	768	280	220	248	372	488	440	424	184	140	288	328	204	644	220	204	356	196	111,152	100.0

SECTION II

Table 2

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED

Reports from England and Wales, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	Total	
	No.	Per cent
Fires in buildings classified according to trade or business carried on		
Agriculture		
Farming (not fruit or poultry) and horse and stock rearing	1,868	1.7
Allotments, market gardening, fruit and poultry farming	396	0.4
Total	2,264	2.0
Mining, quarrying and treatment of non-metalliferous mine and quarry products (excluding gas works)	172	0.2
Manufacture of bricks, pottery, glass, etc.	120	0.1
Manufacture of chemicals, dyes, explosives, paints, oils		
Chemicals	140	0.1
Explosives	24	-
Paints, varnish, oils, grease	136	0.1
Miscellaneous	60	-
Total	360	0.3
Manufacture of metals, machines, implements, conveyances		
Smelting, converting, refining, rolling of iron, steel	124	0.1
Extracting, refining, smelting of other metals	52	-
Founding, other secondary processes in metal working	152	0.1
Engineering (not marine or electrical)	356	0.3
Electrical installations, cables and apparatus	216	0.2
Construction and repair of vehicles	152	0.1
Shipbuilding and repairing, marine engineering	60	-
Cutlery and small tools	52	-
Other metal industries	360	0.3
Total	1,524	1.4
Manufacture of textiles and textile goods (not dress)		
Cotton	256	0.2
Wool, worsted and shoddy	128	0.1
Silk, natural and artificial	16	-
Other or mixed fibres	52	-
Miscellaneous	160	0.1
Textile dyeing, printing, bleaching, finishing	44	-
Total	656	0.6

SECTION II

Table 2 (Contd.)

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED

Reports from England and Wales, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	Total	
	No.	Per cent
Fires in buildings classified according to trade or business carried on (contd.)		
Preparation of skins and leather and manufacture of goods of leather and leather substitute (not clothing or footwear)	88	0.1
Manufacture of clothing (not knitted) including footwear	272	0.2
Manufacture of food, drink, tobacco		
Food	360	0.3
Drink	36	-
Tobacco, cigars, cigarettes, snuff	8	-
Total	404	0.4
Woodworking: manufacture of cane and basket ware, furniture, fittings		
Woodworking and basket ware	300	0.3
Furniture (not metal or basket)	192	0.2
Fittings	32	-
Total	524	0.5
Paper making: manufacture of stationery and stationery requisites, printing and bookbinding	208	0.2
Building, decorating, contracting: slate and stone cutting and dressing	1,496	1.3
Rubber and synthetic rubber	88	0.1
Other manufacturing industries	192	0.2
Gas, water, electricity, sewage	192	0.2
Transport and communication		
Railway - stations etc.	336	0.3
Road - garages, depots, etc.	1,212	1.1
Water - dock buildings other than warehouses	32	-
Air, aerodromes, etc.	8	-
Other communication (post, telephone, wireless)	112	0.1
Total	1,700	1.5

SECTION II

Table 2 (Contd.)

FIRST CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED

Reports from England and Wales, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	Total	
	No.	Per cent
Fires in buildings classified according to trade or business carried on (contd.)		
Commerce		
Departmental stores	112	0.1
Retail shops	2,612	2.4
Wholesale dealers	412	0.4
Dock and other warehouses	48	-
Total	3,184	2.9
Offices, Government and other		
Government departments	64	0.1
Local authorities	88	0.1
Other offices	352	0.3
Total	504	0.5
Navy, Army and Air Force establishments	364	0.3
Fire Service establishments	36	-
Professional establishments (other than offices); public institutions		
Educational establishments	648	0.6
Hospitals, homes, etc. for the care of the sick and infirm	452	0.4
Places of worship	228	0.2
Other public and professional services	360	0.3
Total	1,688	1.5
Places of public entertainment		
Cinemas and theatres	216	0.2
Other places of entertainment	424	0.4
Total	640	0.6
Private residential and personal service (including hotels and catering)		
Private residential houses	17,532	15.8
Private residential flats and maisonettes	3,596	3.2
Clubs, hotels, restaurants, public houses	2,212	2.0
Private huts, unoccupied houses, personal service	1,956	1.8
Total	25,296	22.8
Miscellaneous	2,272	2.0
Undefined	8	-
Total fires in buildings	44,252	39.8

Table 2 (Contd.)

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED

Reports from England and Wales, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	Total	
	No.	Per cent
Fires other than those in buildings		
Agriculture and Forestry		
Crops, standing or stooked (including hay fields)	172	0.2
Crops, ricks and stacks	1,144	1.0
Agricultural machinery	356	0.3
Agricultural waste	364	0.3
Other agricultural hazards	284	0.3
Allotments and gardens	2,000	1.8
Railway embankments	5,860	5.3
Grassland, heathland	30,804	27.7
Woods, forests, plantations	1,184	1.1
Single trees	1,836	1.7
Felled timber	144	0.1
Total	44,148	39.7
Transport and communication		
Aircraft	104	0.1
Railway, rolling stock etc.	400	0.4
Road vehicles - electrically driven	104	0.1
- oil, petrol or gas driven	6,932	6.2
- other	84	0.1
Water vessels - craft on inland waters	152	0.1
- ships in dock	428	0.4
- ships at sea	-	-
- marine structures	52	-
Total	8,256	7.4
Outdoor storage		
Chemicals, explosives, ammunition, oils grease	580	0.5
Coal and coke	68	-
Refuse	6,708	6.0
Timber	1,400	1.3
Cotton, metal, packing materials, rubber, etc.	1,140	1.0
Total	9,896	8.9
Other outdoor structures	4,600	4.1
Total fires other than those in buildings	66,900	60.2
Total fires attended	111,152	100.0

SECTION II

Table 3

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED FOR EACH BRIGADE

Reports from England and Wales 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	County Fire Brigades																									
	Anglesey	Bedfordshire	Berkshire and Reading C.B.	Breconshire and Radnorshire	Buckinghamshire	Caernarvonshire	Cambridgeshire	Cardiganshire and Carmarthenshire	Cheshire	Cornwall	Cumberland	Denbigh and Montgomery	Derbyshire	Devonshire	Dorsetshire	Durham	Ely, Isle of	Essex	Flintshire	Glamorganshire	Gloucestershire	Hampshire	Herefordshire	Hertfordshire	Huntingdonshire	Kent and Canterbury C.B.	Lancashire	Leicestershire and Rutland
Fires in buildings																												
Industrial premises	-	52	40	8	64	12	24	16	72	12	12	16	44	12	28	100	-	196	20	80	28	36	4	68	4	92	468	32
Commercial premises and offices	16	24	24	4	12	-	16	12	72	12	4	16	16	24	20	44	4	132	-	52	40	32	4	40	4	112	128	24
Transport and public utilities	-	16	12	-	28	8	8	20	44	-	4	4	28	16	16	52	4	64	4	16	4	36	4	20	-	76	128	20
Dwellings	24	128	156	28	140	48	72	112	300	112	92	104	280	220	84	320	56	792	56	380	200	280	36	308	40	756	796	92
Other buildings	16	52	112	20	112	24	52	44	216	88	52	68	132	140	80	192	24	368	32	172	96	204	48	124	32	440	596	52
Total	56	272	344	60	356	92	172	204	704	224	164	208	500	412	228	708	88	1,552	112	700	368	588	96	560	80	1,476	2,116	220
Fires not in buildings																												
Agriculture, grassland, forestry	80	332	664	52	584	228	128	296	1,328	388	204	316	548	696	988	636	44	2,108	220	692	396	2,336	104	1,172	80	2,156	2,000	228
Transport	8	48	80	12	100	20	24	48	116	84	68	40	100	80	40	80	28	280	24	128	72	120	28	160	28	324	344	28
Outdoor storage including refuse	-	72	52	-	64	12	16	20	132	40	16	28	64	16	36	108	8	352	20	72	32	88	20	172	4	304	468	36
Other outdoor hazards	-	40	32	4	44	12	12	-	84	12	28	16	48	8	16	136	16	196	28	36	28	60	12	64	4	160	124	12
Total	88	492	828	68	792	272	180	364	1,660	524	316	400	760	800	1,080	960	96	2,936	292	928	528	2,604	164	1,568	116	2,944	2,936	304
Total fires attended	144	764	1,172	128	1,148	364	352	568	2,364	748	480	608	1,260	1,212	1,308	1,668	184	4,488	404	1,628	896	3,192	260	2,128	196	4,420	5,052	524

SECTION II

Table 3 (contd.)

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED FOR EACH BRIGADE

Reports from England and Wales 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	County Fire Brigades (Contd.)																											
	Lincolnshire (Holland)	Lincolnshire (Kesteven)	Lincolnshire (Lindsay)	London	Merioneth	Middlesex	Monmouthshire	Norfolk	Northamptonshire	Northumberland	Nottinghamshire	Oxfordshire	Pembrokeshire	Peterborough, Soke of	Salop	Scilly, Isles of	Somersetshire	Staffordshire	Suffolk and Ipswich C.B.	Surrey	Sussex, East	Sussex, West	Warwickshire	Westmorland	Wight, Isle of	Wiltshire	Worcestershire and Worcester C.B.	Yorkshire (East Riding)	Yorkshire (North Riding)	Yorkshire (West Riding)
Fires in buildings																														
Industrial premises	-	-	24	828	4	252	20	16	28	32	32	8	4	12	52	-	56	84	20	96	16	28	36	4	8	80	64	16	68	240
Commercial premises and offices	16	16	8	572	-	108	12	4	16	16	16	8	4	16	8	-	20	48	28	88	32	16	44	-	8	20	8	8	20	64
Transport and public utilities	-	-	16	88	-	52	12	20	4	24	8	8	4	8	12	-	16	40	36	64	8	8	28	-	8	16	24	8	16	84
Dwellings	48	32	92	2,184	20	1,264	144	152	100	168	224	108	32	28	148	-	220	224	236	568	192	144	168	28	52	160	232	56	164	472
Other buildings	52	32	80	1,376	-	428	52	104	68	108	100	32	12	12	100	-	88	112	128	284	104	100	168	24	32	156	108	56	120	388
Total	116	80	220	5,048	24	2,104	240	296	216	348	380	164	56	76	320	-	400	508	448	1,100	352	296	444	56	108	432	436	144	388	1,248
Fires not in buildings																														
Agriculture, grassland, forestry	44	104	260	820	40	1,776	304	528	152	292	824	156	72	44	316	-	416	1,068	492	3,448	784	488	676	36	108	276	488	68	276	1,204
Transport	20	24	20	928	16	404	32	72	60	68	104	60	12	4	40	-	88	132	60	292	40	40	92	12	24	60	72	28	84	188
Outdoor storage including refuse	4	16	44	2,040	8	532	20	64	32	60	48	36	16	12	40	-	64	132	60	180	28	96	60	-	4	52	68	20	36	244
Other outdoor hazards	-	4	28	680	12	312	4	20	24	64	36	24	4	4	44	-	40	44	40	104	24	40	56	-	4	24	32	8	40	116
Total	68	148	352	4,468	76	3,024	360	684	268	484	1,012	276	104	64	440	-	608	1,376	652	4,024	876	664	884	48	140	412	660	124	436	1,752
Total fires attended	184	228	572	9,516	100	5,128	600	980	484	832	1,392	440	160	140	760	-	1,008	1,884	1,100	5,124	1,228	960	1,328	104	248	844	1,096	268	824	3,000

SECTION II

Table 3 (contd.)

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED FOR EACH BRIGADE

Reports from England and Wales 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	County Borough Fire Brigades																																					
	Barnsley	Barrow in Furness	Bath	Birkenhead	Birmingham	Blackburn	Blackpool	Bolton	Bootle	Bournemouth	Bradford	Brighton	Bristol	Burnley	Burton on Trent	Bury	Cardiff	Carlisle	Chester	Coventry	Croydon	Darlington	Derby	Dewsbury	Doncaster	Dudley	Eastbourne	East Ham	Exeter	Gloucester	Great Yarmouth	Grimsby	Halifax	Hastings	Huddersfield	Kingston upon Hull	Leeds	Leicester	Lincoln
Fires in buildings																																						
Industrial premises	-	32	8	4	240	20	8	56	8	4	64	12	72	16	12	12	84	4	-	28	40	24	4	24	20	8	-	8	12	12	12	28	32	8	60	48	132	76	12
Commercial premises and offices	8	8	8	16	132	8	12	32	16	12	24	20	56	4	-	12	32	12	20	28	16	4	20	-	4	-	4	4	12	4	4	12	12	8	16	36	56	28	12
Transport and public utilities	-	4	-	-	56	12	16	20	4	12	8	8	32	-	-	4	8	4	12	8	16	8	12	-	-	8	4	8	4	-	8	8	12	-	4	24	24	8	-
Dwellings	40	32	76	132	820	72	84	72	44	44	172	100	216	64	36	32	136	36	20	152	124	24	84	32	36	16	28	48	72	36	24	36	48	20	52	172	148	108	44
Other buildings	8	20	24	44	224	32	76	60	36	20	100	32	92	24	20	20	56	24	32	76	28	12	40	16	20	16	44	36	12	28	24	12	8	40	16	104	128	76	16
Total	56	96	116	196	1,472	144	196	240	108	92	368	172	468	108	68	80	316	80	84	292	224	72	160	72	80	48	80	104	112	80	72	96	112	76	148	384	488	296	84
Fires not in buildings																																						
Agriculture, grassland, forestry	44	104	40	188	700	104	132	84	100	364	100	176	504	96	12	76	160	60	76	296	168	32	56	24	76	116	48	52	60	52	12	48	80	56	40	80	204	192	92
Transport	4	28	28	44	160	8	8	24	52	28	44	20	116	12	8	20	48	12	24	56	56	24	48	12	24	20	8	40	20	20	20	16	4	8	28	68	96	48	8
Outdoor storage including refuse	12	32	20	48	276	28	52	28	56	28	88	24	116	32	-	12	52	24	24	84	60	52	36	40	24	16	28	36	40	4	16	36	12	-	20	68	72	92	32
Other outdoor hazards	4	12	-	52	152	-	16	8	24	8	28	36	40	16	-	8	28	4	8	40	8	20	16	12	-	-	4	12	4	4	8	8	-	8	-	20	76	28	4
Total	64	176	88	332	1,288	140	208	144	232	428	260	256	776	156	20	116	288	100	132	476	292	128	156	88	124	152	88	140	124	80	56	108	96	72	88	236	448	360	136
Total fires attended	120	272	204	528	2,760	284	404	384	340	520	628	428	1,244	264	88	196	604	180	216	768	516	200	316	160	204	200	168	244	236	160	128	204	208	148	236	620	936	656	220

SECTION II

Table 3 (Contd.)

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED FOR EACH BRIGADE

Reports from England and Wales 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	County Borough Fire Brigades (Contd.)																																					Total fires in England and Wales
	Liverpool	Manchester	Merthyr Tydfil	Middlesbrough	Newcastle on Tyne and Gateshead	Newport (Mon.)	Northampton	Norwich	Nottingham	Oldham	Oxford	Plymouth	Portsmouth	Preston	Rochdale	Rotherham	St. Helens	Salford	Sheffield	Smethwick and West Bromwich	Southampton	Southend	Southport	South Shields	Stockport	Stoke on Trent	Sunderland	Swansea	Tynemouth	Wakefield	Wallasey	Walsall	Warrington	West Ham	West Hartlepool	Wigan	Wolverhampton	York	
Fires in buildings																																						
Industrial premises	120	164	8	36	24	8	8	16	28	32	-	28	40	20	64	16	8	28	96	48	16	20	12	12	20	52	40	16	12	12	-	40	12	56	20	20	28	12	6,104
Commercial premises and offices	124	148	4	20	48	20	4	4	44	20	12	24	8	16	12	8	16	20	36	-	12	24	16	4	12	24	16	40	4	8	12	-	8	32	24	12	28	-	3,688
Transport and public utilities	56	60	4	4	12	4	-	-	20	12	8	4	4	-	-	4	8	-	20	4	-	4	-	-	4	8	-	8	-	8	-	-	-	8	-	4	16	8	1,892
Dwellings	556	632	20	64	168	56	48	76	136	68	44	104	72	64	40	44	48	144	196	68	112	96	56	48	92	72	120	92	32	32	76	36	24	112	52	40	96	52	21,092
Other buildings	264	224	28	76	88	40	20	40	60	24	36	40	48	20	24	4	12	48	60	16	68	28	16	12	44	44	44	60	16	16	28	28	16	48	44	20	32	32	11,476
Total	1,120	1,228	64	200	340	128	80	136	288	156	100	200	172	120	140	76	92	240	408	136	208	172	100	76	172	200	220	216	64	76	116	104	60	256	140	96	200	104	44,252
Fires not in buildings																																						
Agriculture, grassland, forestry	424	424	16	56	128	128	52	136	284	60	32	76	128	76	60	52	124	60	180	160	388	84	68	96	100	164	104	160	52	40	124	168	92	152	44	72	80	36	44,148
Transport	208	132	-	32	52	52	20	24	52	28	8	56	64	24	16	20	-	52	68	16	60	4	28	8	24	52	24	28	12	16	24	28	16	40	16	4	32	16	8,256
Outdoor storage including refuse	276	152	4	48	128	24	16	16	68	44	32	44	68	44	56	20	20	20	48	48	96	20	16	44	72	48	60	12	40	8	8	20	32	144	20	16	36	40	9,896
Other outdoor hazards	72	132	8	20	104	8	8	12	48	12	8	4	24	28	4	4	8	28	40	12	16	-	8	24	4	24	32	8	16	-	16	8	4	52	-	16	8	-	4,600
Total	980	840	28	156	412	212	96	188	452	144	80	180	284	172	136	96	152	160	336	236	560	108	120	172	200	288	220	208	120	64	172	224	144	388	80	108	156	92	66,900
Total fires attended	2,100	2,068	92	356	752	340	176	324	740	300	180	380	456	292	276	172	244	400	744	372	768	280	220	248	372	488	440	424	184	140	288	328	204	644	220	204	356	196	111,152

SECTION II

Table 4

SUPPOSED CAUSE OF FIRES

Reports from England and Wales, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Each item in the list of supposed causes of fire given in this table represents a group of causes which have a common source of ignition. In some cases the groups have been divided into sub-groups according to the nature of the material first ignited and in others according to the act with the source of ignition which led to the outbreak of fire. Certain causes were specified for the first time in 1954; the miscellaneous item is therefore not comparable with those for years previous to 1954.

Supposed cause of fire	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
Aircraft, crashed	-	-	84	0.1	84	0.1
Ashes, soot	600	0.5	1,636	1.5	2,236	2.0
Brazier	124	0.1	176	0.2	300	0.3
Camp fire, fire in open air[1]	8	-	196	0.2	204	0.2
Candle	324	0.3	12	-	336	0.3
Chimney on fire, not confined to chimney	2,476	2.2	12	-	2,488	2.2
Chimney, sparks from (outside building)	372	0.3	84	0.1	456	0.4
Cooker, cooking range, oven other than electric, coal gas or oil[1]	308	0.3	16	-	324	0.3
Electric cooker	1,080	1.0	-	-	1,080	1.0
fire, heater, radiator	1,148	1.0	8	-	1,156	1.0
Electric iron	224	0.2	-	-	224	0.2
motor	280	0.2	20	-	300	0.3
refrigerator	660	0.6	20	-	680	0.6
television	248	0.2	-	-	248	0.2
wire and cable, other than lead to apparatus	1,888	1.7	2,164	1.9	4,052	3.6
Electric wire and cable, lead to apparatus	236	0.2	392	0.4	628	0.6
wireless	304	0.3	-	-	304	0.3
other apparatus	1,620	1.5	968	0.9	2,588	2.3
Explosives, fireworks	240	0.2	592	0.5	832	0.7
Fire in grate igniting bedding, clothing, linen	1,060	1.0	-	-	1,060	1.0
Fire in grate igniting furniture, furnishings	884	0.8	-	-	884	0.8
structural timber under hearth	1,724	1.6	-	-	1,724	1.6
Other materials	2,360	2.1	-	-	2,360	2.1
Fish frying range (all fuels)	824	0.7	16	-	840	0.8
Flue	844	0.8	152	0.1	996	0.9
Furnace (coal or coke)	48	-	4	-	52	-
Gas (coal) burner, jet, ring	352	0.3	168	0.2	520	0.5
cooker	1,280	1.2	4	-	1,284	1.2
fire, heater, radiator	240	0.2	-	-	240	0.2
other apparatus	600	0.5	200	0.2	800	0.7

SECTION II

Table 4 (Contd.)

SUPPOSED CAUSE OF FIRE

Reports from England and Wales, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Supposed cause of fire	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
Incubator, brooder, (all fuels)	704	0.6	16	-	720	0.6
Intentional burning of grassland, gorse, etc.	68	0.1	976	1.0	1,044	0.9
Lightning	124	0.1	48	-	172	0.2
Lime	12	-	16	-	28	-
Locomotives, sparks from	220	0.2	8,980	8.1	9,200	8.3
Malicious ignition (1) (2)	292	0.3	124	0.1	416	0.4
Matches	716	0.6	1,168	1.1	1,884	1.7
Matches, children playing with	3,140	2.8	17,432	15.7	20,572	18.5
Mechanical heat or sparks	560	0.5	452	0.4	1,012	0.9
Metal, hot	148	0.1	44	-	192	0.2
Naked light (1)(3)	352	0.3	1,100	1.0	1,452	1.3
Oil, blow lamp	1,084	1.0	60	0.1	1,144	1.0
engine (including petrol)	228	0.2	2,296	2.1	2,524	2.3
lamp	248	0.2	184	0.2	432	0.4
stove	1,428	1.3	92	0.1	1,520	1.4
tractor	68	0.1	236	0.2	304	0.3
other apparatus	272	0.2	176	0.2	448	0.4
Oxyacetylene cutting and welding apparatus	312	0.3	428	0.4	740	0.7
Rubbish burning	736	0.7	6,184	5.6	6,920	6.2
Slow combustion stove igniting structural woodwork	368	0.3	-	-	368	0.3
other materials	964	0.9	408	0.4	1,372	1.2
Smoking materials	3,716	3.3	6,188	5.6	9,904	8.9
Spontaneous combustion in rubbish	4	-	112	0.1	116	0.1
Spontaneous combustion in other materials	148	0.1	180	0.2	328	0.3
Static electricity	20	-	-	-	20	-
Steam roller, engine, traction engine	-	-	16	-	16	-
Sun's rays	28	-	88	0.1	116	0.1
Taper, lighted paper or sticks	232	0.2	148	0.1	380	0.3
Taper, lighted paper or sticks, children playing with	72	0.1	24	-	96	0.1
Miscellaneous (4)	716	0.6	352	0.3	1,068	1.0
Unknown source of ignition	4,916	4.4	12,448	11.2	17,364	15.6
Total number of fires	44,252	39.8	66,900	60.2	111,152	100.0

Notes: (1) Causes specified for the first time in the Annual Statistical Tables for 1954.

(2) Malicious ignition is a general heading for suspected or proven arson or incendiarism.

(3) No further information given in original reports.

(4) Not comparable with the years prior to 1954.

SECTION II

Table 5A

SUPPOSED CAUSE OF FIRES IN BUILDINGS IN RELATION TO HAZARD IN WHICH FIRE STARTED

Reports from England and Wales, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Row No.	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	Row No.
	Supposed cause of fire	Hazard in which fire started																											
		Agriculture	Mining, quarrying and treatment of non-metalliferous mine and quarry products (excluding gas works)	Manufacture of bricks, pottery, glass, etc.	Manufacture of chemicals, explosives, paints, oils	Manufacture of metals, machines, implements, conveyances	Manufacture of textiles and textile goods (not dress)	Manufacture of clothing (not knitted) including footwear, and goods of leather and leather substitute; preparation of skins and leather	Manufacture of food, drink, tobacco	Woodworking; manufacture of cane and basket ware, furniture, fittings	Paper making; manufacture of stationery and stationery requisites, printing and bookbinding	Building, decorating, contracting; slate and stone cutting and dressing	Other manufacturing industries, including rubber and synthetic rubber	Gas, water, electricity, sewage	Transport and communication	Commerce; retail shops, including departmental stores	Commerce; wholesale dealers and warehouses	Offices; Government and other	Navy, Army Air Force establishments	Fire Service establishments	Professional establishments (other than offices), public institutions	Places of public entertainment	Private residential houses	Private residential flats and maisonettes	Clubs, hotels, restaurants, public houses	Private huts, unoccupied houses, personal service	Miscellaneous and undefined	Total	
1	Ashes, soot	-	-	-	-	4	8	4	12	-	-	-	8	4	36	32	12	20	4	-	28	4	76	48	20	276	4	600	1
2	Brazier	4	4	12	4	16	-	4	4	-	-	32	-	4	-	12	4	-	4	-	12	-	-	-	-	-	8	124	2
3	Camp fire, fire in open air[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	8	3
4	Candle	4	-	-	-	-	-	-	4	-	-	-	-	-	4	12	-	-	-	-	8	4	200	32	4	52	-	324	4
5	Chimney on fire, not confined to chimney	4	-	-	-	8	-	4	4	4	-	16	-	-	-	20	-	4	-	-	40	4	2,020	268	68	12	-	2,476	5
6	Chimney, sparks from (outside building)	-	-	-	8	20	4	-	4	16	4	12	-	4	8	16	8	4	-	-	16	-	192	16	16	12	12	372	6
7	Cooker, cooking range, oven, other than electric, coal gas or oil[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	4	8	-	-	12	-	16	-	220	24	24	-	-	308	7
8	Electric cooker	-	-	-	-	4	-	-	-	-	-	-	-	-	-	32	4	12	-	-	16	4	804	192	12	-	-	1,080	8
9	fire, heater, radiator	4	4	4	-	24	4	12	4	8	-	12	-	4	40	76	-	36	4	-	48	-	660	176	24	4	-	1,148	9
10	iron	-	-	-	-	-	-	32	-	-	-	4	-	-	-	4	-	-	4	-	-	-	104	56	12	8	-	224	10

11	Electric, motor	-	8	4	8	28	20	16	16	24	-	-	20	8	4	32	4	16	-	-	24	8	12	16	12	-	-	280	11
12	refrigerator	-	-	-	-	-	4	4	8	-	-	-	-	-	-	400	16	8	4	4	32	4	92	24	60	-	-	660	12
13	television	-	-	-	-	4	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	212	28	-	-	-	248	13
14	wire and cable other than lead to apparatus	88	4	4	8	60	12	16	24	20	12	28	8	8	168	160	12	44	20	12	76	28	812	132	84	36	12	1,888	14
15	wire and cable lead to apparatus	24	-	4	-	4	-	-	-	-	-	-	-	-	52	4	4	-	4	-	4	4	100	24	-	8	-	236	15
16	wireless	-	-	-	-	-	-	-	4	-	4	-	-	-	4	4	-	-	-	-	8	4	224	32	16	4	-	304	16
17	other apparatus	40	4	4	28	124	40	20	36	32	12	8	32	20	72	144	16	44	8	-	92	20	612	100	72	32	8	1,620	17
18	Explosives, fireworks	-	-	-	4	4	-	-	-	16	-	16	4	-	12	36	4	-	-	-	8	12	68	24	4	12	16	240	18
19	Fire in grate, igniting bedding, clothing, linen	-	-	-	-	-	-	-	-	4	-	-	-	4	-	-	-	-	-	-	-	-	864	180	8	-	-	1,060	19
20	furniture, furnishings	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	764	104	8	-	4	884	20
21	structural timber under hearth	-	-	-	-	8	-	-	-	-	-	16	-	-	4	16	-	20	-	-	12	-	1,092	448	100	8	-	1,724	21
22	other materials	12	-	4	-	16	-	4	-	8	-	28	4	-	12	36	-	12	12	-	36	-	1,896	208	60	12	-	2,360	22
23	Fish frying range (all fuels)	-	8	-	4	12	4	-	4	-	4	-	-	4	8	4	-	-	20	-	36	4	-	-	712	-	-	824	23
24	Flue	20	8	8	16	44	4	12	16	8	4	56	4	4	28	44	16	4	44	4	100	28	248	28	52	36	8	844	24
25	Furnace (coal or coke)	-	-	-	-	32	-	-	-	-	-	-	4	-	-	4	-	4	-	-	4	-	-	-	-	-	-	48	25
26	Gas (coal) burner, jet, ring	-	4	-	4	20	-	8	8	4	12	8	8	-	12	48	4	4	-	-	20	4	88	48	40	8	-	352	26
27	cooker	-	-	-	-	-	-	-	-	-	4	4	-	-	-	36	-	20	-	4	16	-	844	272	76	4	-	1,280	27
28	fire, heater, radiator	-	-	-	-	-	-	-	-	4	4	4	-	4	4	28	8	12	-	-	16	4	104	32	16	-	-	240	28
29	other apparatus	-	4	-	28	136	12	12	32	4	4	-	20	4	-	32	8	-	-	-	28	12	152	48	32	32	-	600	29
30	Incubator, brooder (all fuels)	548	-	-	-	-	-	-	-	-	-	-	-	-	8	8	-	-	-	-	4	-	24	-	8	104	-	704	30
31	Intentional burning of grassland, gorse, etc.	12	-	-	-	-	-	-	-	4	-	4	-	-	12	-	-	-	-	-	4	-	16	-	-	4	12	68	31
32	Lightning	8	-	-	-	4	4	-	-	-	-	4	-	8	-	-	-	-	4	-	4	4	72	8	-	4	-	124	32
33	Lime	-	-	-	-	4	4	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	33
34	Locomotives, sparks from	24	-	-	-	12	-	-	-	4	-	4	-	-	120	4	-	-	-	-	4	-	12	-	-	16	20	220	34
35	Malicious ignition (1)(2)	32	-	-	4	4	16	-	-	4	-	4	-	-	4	20	8	8	4	-	52	16	68	4	12	16	16	292	35
36	Matches	24	4	4	4	28	8	16	4	-	4	4	4	-	32	56	12	20	4	-	40	4	308	60	16	36	24	716	36
37	Matches, children playing with	204	8	-	8	8	20	4	8	12	4	272	16	-	104	120	16	8	12	-	80	56	364	92	12	240	1,472	3,140	37
38	Mechanical heat or sparks	4	4	-	20	96	272	20	12	48	-	-	36	4	12	12	4	-	-	-	-	-	-	8	-	8	-	560	38
39	Metal, hot	-	-	-	-	84	-	8	-	-	-	12	-	8	-	4	-	-	-	-	8	-	20	-	-	4	-	148	39
40	Naked light (1)(3)	40	4	-	4	8	12	8	-	12	-	16	-	-	32	16	12	8	4	-	20	8	100	12	12	8	16	352	40
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	

For explanation of notes see page 23.

SECTION II

Table 5A (Contd.)

SUPPOSED CAUSE OF FIRES IN BUILDINGS IN RELATION TO HAZARD IN WHICH FIRE STARTED

Reports from England and Wales, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Row No.	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	Row No.
	Supposed cause of fire	Hazard in which fire started																											
		Agriculture	Mining, quarrying and treatment of non-metalliferous mine and quarry products (excluding gas works)	Manufacture of bricks, pottery, glass, etc.	Manufacture of chemicals, explosives, paints, oils	Manufacture of metals, machines, implements, conveyances	Manufacture of textiles and textile goods (not dress)	Manufacture of clothing (not knitted) including footwear, and goods of leather and leather substitute; preparation of skins and leather	Manufacture of food, drink, tobacco	Woodworking; manufacture of cane and basketware, furniture, fittings	Paper making; manufacture of stationery and stationery requisites, printing and bookbinding	Building, decorating, contracting; slate and stone cutting and dressing	Other manufacturing industries, including rubber and synthetic rubber	Gas, water, electricity, sewage	Transport and communication	Commerce; retail shops, including departmental stores	Commerce; wholesale dealers and warehouses	Offices; Government and other	Navy, Army, Air Force establishments	Fire Service establishments	Professional establishments (other than offices), public institutions	Places of public entertainment	Private residential houses	Private residential flats and maisonettes	Clubs, hotels, restaurants, public houses	Private huts, unoccupied houses, personal service	Miscellaneous and undefined	Total	
41	Oil, blow lamp	36	8	-	4	4	-	8	4	8	4	68	-	-	20	60	-	16	20	-	84	12	580	56	44	40	8	1,084	41
42	engine (including petrol)	32	8	-	-	8	-	-	-	4	-	20	-	-	88	8	8	-	-	4	4	-	4	4	4	32	-	228	42
43	lamp	40	-	-	-	-	-	-	-	-	-	12	-	-	104	4	8	8	-	-	12	-	44	-	4	12	-	248	43
44	stove	32	4	-	-	16	4	12	-	8	-	28	4	-	64	80	12	8	16	-	24	-	784	224	20	88	-	1,428	44
45	tractor	64	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	68	45
46	Oil, other apparatus	56	4	4	24	48	-	-	28	4	-	8	8	8	4	-	-	4	-	4	4	-	32	4	20	8	-	272	46
47	Oxyacetylene cutting and welding apparatus	12	12	-	8	92	12	-	-	4	-	60	-	-	32	12	12	-	-	-	8	4	-	-	8	4	32	312	47
48	Rubbish burning	92	4	12	4	20	12	-	8	12	4	100	12	4	28	124	20	4	8	-	12	4	24	-	20	136	72	736	48
49	Slow combustion stove igniting structural woodwork	32	-	4	-	12	-	8	-	8	-	52	4	4	8	28	4	4	28	-	80	12	40	4	12	12	12	368	49
50	other materials	72	20	8	12	64	8	20	-	44	20	112	4	12	68	64	12	12	16	-	116	28	164	24	20	32	12	964	50

51	Smoking materials	132	4	4	8	144	28	44	36	32	48	144	16	4	140	336	64	80	32	4	180	228	1,176	272	220	208	112	3,716	51
52	Spontaneous combustion in rubbish	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	52
53	Spontaneous combustion in other materials	16	-	-	12	16	12	-	4	-	-	-	-	20	16	-	4	-	-	-	4	-	8	-	32	4	-	148	53
54	Static electricity	-	-	-	-	-	-	12	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	54
55	Steam roller, engine, traction engine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55
56	Sun's rays	4	-	-	-	-	-	4	-	-	-	-	-	-	-	4	-	-	-	-	4	-	-	-	-	8	4	28	56
57	Taper, lighted paper or sticks	-	-	-	-	8	-	-	8	4	4	8	-	-	8	36	-	4	-	-	4	-	96	28	4	20	-	232	57
58	Taper, lighted paper or sticks, children playing with	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	4	-	48	12	-	-	-	72	58
59	Miscellaneous and undefined(4)	32	8	28	32	88	20	-	48	20	4	68	12	20	20	16	8	-	8	-	12	4	152	12	20	32	52	716	59
60	Unknown source of ignition	516	32	12	104	184	112	44	64	140	52	248	44	28	292	468	116	56	68	-	224	112	936	212	192	320	340	4,916	60
61	Total fires in buildings	2,264	172	120	360	1,524	656	360	404	524	208	1,496	280	192	1,700	2,724	460	504	364	36	1,688	640	17,532	3,596	2,212	1,956	2,280	44,252	61
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	

For explanation of notes see page 23.

SECTION II

Table 5B

SUPPOSED CAUSE OF FIRES OTHER THAN THOSE IN BUILDINGS IN RELATION TO HAZARD IN WHICH FIRE STARTED

Reports from England and Wales, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Row No.	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Row No.
	Supposed cause of fire	Hazard in which fire started																						
												Transport and communications					Outdoor storage							
		Crops	Agricultural machinery	Agricultural waste	Agricultural, other	Gardens and allotments	Railway embankments	Grassland, heathland	Woods, forests, plantations	Single trees	Felled timber	Air	Rail	Road-oil, petrol or gas driven vehicles	Road - other vehicles	Water	Chemicals, explosives, ammunition, oils, grease	Coal and Coke	Refuse	Timber	Other materials	Miscellaneous outdoor structures	Total	
1	Aircraft crashed	-	-	-	-	-	-	-	-	-	-	84	-	-	-	-	-	-	-	-	-	-	84	1
2	Ashes, soot	4	-	12	8	8	52	56	-	4	4	-	28	140	12	68	16	16	1,068	36	60	44	1,636	2
3	Brazier	4	-	-	4	-	-	16	-	-	-	-	-	4	-	4	4	12	-	8	16	104	176	3
4	Camp fire, fire in open air(1)	4	-	-	-	4	-	124	20	32	8	-	-	-	-	-	-	-	-	-	-	4	196	4
5	Candle	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	8	12	5
6	Chimney on fire, not confined to chimney	-	-	-	-	-	-	4	-	-	-	-	-	8	-	-	-	-	-	-	-	-	12	6
7	Chimney, sparks from (outside building)	16	-	4	4	-	4	28	-	-	-	-	4	-	-	-	-	-	4	12	-	8	84	7
8	Cooker, cooking range, oven, other than electric, coal gas or oil(1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	16	8
9	Electric cooker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
10	fire, heater, radiator	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	4	8	10
11	Electric motor	-	-	-	-	-	-	-	-	-	-	-	-	-	8	4	-	-	-	-	-	8	20	11
12	refrigerator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	16	20	12
13	wire and cable other than lead to apparatus	-	52	-	-	-	-	4	-	-	-	-	20	1,684	28	40	8	4	-	-	-	324	2,164	13
14	wire and cable lead to apparatus	-	12	-	-	-	-	-	-	-	-	-	-	344	24	4	-	-	-	-	-	8	392	14
15	wireless	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15

16	Electric, other apparatus	-	20	-	-	-	-	4	-	-	-	4	8	336	44	36	8	-	-	-	-	508	968	16
17	Explosives, fireworks	24	-	-	4	-	4	108	8	108	-	-	-	28	-	-	16	-	40	8	16	228	592	17
18	Fish frying range (all fuels)	-	-	-	-	-	-	-	-	-	-	-	-	16	-	-	-	-	-	-	-	-	16	18
19	Flue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	148	152	19
20	Furnace (coal or coke)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	4	20
21	Gas (coal) burner, jet, ring	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	168	168	21
22	cooker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	22
23	other apparatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	200	23
24	Incubator, brooder, (all fuels)	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	16	24
25	Intentional burning of grassland, gorse, etc.	8	-	-	-	184	20	660	32	20	-	-	4	-	-	-	4	-	8	16	-	20	976	25
26	Lightning	12	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	28	48	26
27	Lime	-	-	-	-	-	-	-	-	-	-	-	12	4	-	-	-	-	-	-	-	-	16	27
28	Locomotives, sparks from	136	-	8	24	124	5,120	2,520	160	20	8	-	164	16	8	-	8	4	80	172	60	348	8,980	28
29	Malicious ignition (1)(2)	44	-	-	-	-	-	-	-	-	4	-	-	52	-	4	-	-	-	4	8	8	124	29
30	Matches	4	-	-	4	68	8	620	32	24	-	4	4	32	-	12	44	-	132	32	32	116	1,168	30
31	Matches, children playing with	244	-	60	48	320	276	11,360	224	944	48	-	20	256	8	12	52	-	2,660	296	192	412	17,432	31
32	Mechanical heat or sparks	-	4	-	-	-	-	4	-	-	-	-	-	368	-	8	60	-	-	-	4	4	452	32
33	Metal, hot	-	-	-	-	-	-	-	-	-	-	-	8	12	-	8	4	-	-	4	-	8	44	33
34	Naked light (1)(3)	32	-	4	4	12	16	684	48	16	8	-	-	36	-	4	12	-	100	36	28	60	1,100	34
35	Oil blow lamp	4	-	-	-	-	-	8	-	-	-	-	-	4	-	-	12	-	-	4	-	28	60	35
36	Oil engine (including petrol)	-	4	-	-	-	-	8	-	-	-	8	-	2,200	-	24	-	-	-	-	4	48	2,296	36
37	lamp	-	4	-	-	-	-	8	-	-	-	-	-	104	8	-	12	-	4	-	-	44	184	37
38	stove	-	-	-	-	-	-	12	-	-	-	-	4	4	4	16	-	-	-	-	-	52	92	38
39	tractor	36	136	4	12	-	-	24	4	-	-	-	-	20	-	-	-	-	-	-	-	-	236	39
40	other apparatus	16	56	-	-	12	-	16	-	-	-	-	-	8	-	44	-	-	-	-	-	24	176	40
41	Oxyacetylene cutting and welding apparatus	-	-	-	4	-	4	12	-	-	-	-	20	36	-	88	52	-	8	52	28	124	428	41
42	Rubbish burning	144	8	148	92	856	80	2,508	108	236	36	-	28	28	-	8	36	-	1,080	408	184	196	6,184	42
43	Slow combustion stove igniting structural woodwork	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43
44	other materials	-	-	-	-	-	-	-	-	-	-	-	-	8	-	8	12	-	4	8	4	364	408	44
45	Smoking materials	128	4	20	28	136	72	3,864	184	52	8	-	12	372	28	100	36	-	556	76	192	320	6,188	45
46	Spontaneous combustion in rubbish	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	92	-	-	16	112	46
47	Spontaneous combustion in other materials	20	-	28	-	4	-	4	-	-	-	-	4	8	4	16	36	12	4	-	36	4	180	47
48	Static electricity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48
49	Steam roller, engine, traction engine	-	-	-	-	-	-	4	-	-	-	-	-	-	8	-	-	-	4	-	-	-	16	49
50	Sun's rays	4	-	-	-	4	-	64	4	-	-	-	-	-	-	-	-	-	-	-	8	4	88	50
51	Taper, lighted paper or sticks	4	-	4	4	4	-	52	-	8	-	-	-	8	-	-	4	-	16	-	12	32	148	51
52	Taper, lighted paper or sticks children playing with	4	-	-	-	-	-	12	-	-	-	-	-	4	-	-	-	-	-	-	-	4	24	52
53	Miscellaneous and undefined (4)	8	12	4	-	4	-	40	-	4	4	-	28	52	-	52	28	8	-	8	12	88	352	53
54	Unknown source of ignition	416	44	68	40	260	204	7,968	360	360	16	4	32	736	4	64	116	12	848	216	244	436	12,448	54
55	Total fires other than those in buildings	1,316	356	364	284	2,000	5,860	30,804	1,184	1,836	144	104	400	6,932	188	632	580	68	6,708	1,400	1,140	4,600	66,900	55
	Column No.	1	2	3	4	5	6	7	8	9.	10	11	12	13	14	15	16	17	18	19	20	21	22	

For explanation of notes see page 23.

SECTION II

Table 6

MATERIAL FIRST IGNITED IN FIRES

Reports from England and Wales, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Material first ignited	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
Agriculture and Forestry						
Crops, ricks, stacks						
Barley	4	-	64	0.1	68	0.1
Hay	112	0.1	200	0.2	312	0.3
Straw	188	0.2	336	0.3	524	0.5
Stubble	-	-	72	0.1	72	0.1
Other	12	-	120	0.1	132	0.1
Loose straw or hay	768	0.7	620	0.6	1,388	1.3
Grass, heather, bracken	120	0.1	18,672	16.8	18,792	16.9
Trees, hedges, undergrowth brushwood, bushes (including gorse), twigs, touchwood	20	-	15,384	13.8	15,404	13.8
Other agricultural materials	64	0.1	300	0.3	364	0.4
Total	1,288	1.2	35,768	32.2	37,056	33.4
Chemicals - gases						
Acetylene	52	-	16	-	68	0.1
Coal gas	1,084	1.0	536	0.5	1,620	1.5
Other gases	96	0.1	68	0.1	164	0.2
Total	1,232	1.1	620	0.6	1,852	1.8
Chemicals - oils						
Animal and vegetable oils	132	0.1	-	-	132	0.1
Mineral oil						
Paraffin	1,048	0.9	148	0.1	1,196	1.0
Petrol in vehicles	424	0.4	2,544	2.3	2,968	2.7
Petrol not in vehicles	376	0.3	156	0.1	532	0.4
Other mineral oils	204	0.2	184	0.2	388	0.4
Oil, waste and undefined	332	0.3	412	0.4	744	0.7
Total	2,516	2.2	3,444	3.1	5,960	5.3
Chemicals - other						
Celluloid (including films)	-	-	-	-	-	-
Paint, enamel, lacquer, varnish, stains and French polish	188	0.2	36	-	224	0.2
Pitch, tar	72	0.1	272	0.2	344	0.3
Rubber, vulcanite, ebonite	180	0.2	304	0.3	484	0.5
Other chemicals	712	0.6	324	0.3	1,036	0.9
Total	1,152	1.0	936	0.8	2,088	1.8
Paper, cardboard, wood (not part of a structure)						
Paper, cardboard	2,192	2.0	1,192	1.1	3,384	3.0
Wood chippings, flour, sawdust, shavings, wool	540	0.5	260	0.2	800	0.7
Wood barrels, boxes, cases, firewood etc.	492	0.4	144	0.1	636	0.6
Timber	196	0.2	712	0.6	908	0.8
Total	3,420	3.1	2,308	2.0	5,728	5.1

Table 6 (Contd.)

MATERIAL FIRST IGNITED IN FIRES

Reports from England and Wales, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Material first ignited	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
Textiles						
Canvas and canvas goods	40	-	240	0.2	280	0.2
Clothing on person	588	0.5	36	-	624	0.5
Clothing not on person	1,316	1.2	88	0.1	1,404	1.3
Cotton	256	0.2	64	0.1	320	0.3
Jute, hessian, sacking	512	0.5	272	0.2	784	0.7
Rags, (including oily rags)	280	0.3	228	0.2	508	0.5
Tarpaulin, waterproof sheeting, oilskins	180	0.2	440	0.4	620	0.6
Other textiles	292	0.3	96	0.1	388	0.4
Total	3,464	3.1	1,464	1.3	4,928	4.4
Furniture, furnishings, household goods						
Bedding	1,072	1.0	40	-	1,112	1.0
Carpets, rugs	564	0.5	32	-	596	0.5
Curtains	644	0.6	8	-	652	0.6
Furniture	2,088	1.9	16	-	2,104	1.9
Linen articles (unspecified), laundry	376	0.3	24	-	400	0.3
Seating in vehicles	40	-	292	0.4	332	0.4
Other furnishings	888	0.8	48	-	936	0.8
Total	5,672	5.1	460	0.4	6,132	5.5
Building materials, structural woodwork						
Building materials other than wood	572	0.5	28	-	600	0.5
Structural woodwork						
External	792	0.7	-	-	792	0.7
Internal						
Door, window frame	412	0.4	-	-	412	0.4
Floor, stairs	1,524	1.4	-	-	1,524	1.4
Partitions, linings to walls	880	0.8	-	-	880	0.8
Roof	800	0.7	-	-	800	0.7
Timber in chimney, flue	572	0.5	-	-	572	0.5
Timber under hearth	1,780	1.6	-	-	1,780	1.6
Other fittings	260	0.2	-	-	260	0.2
Not known whether internal or external	604	5.4	-	-	604	5.4
Structural woodwork, other than buildings	-	-	1,224	1.1	1,224	1.1
Total	8,196	7.4	1,252	1.1	9,448	8.5
Miscellaneous						
Coal, coke	132	0.1	88	0.1	220	0.2
Electrical insulation	3,068	2.8	2,512	2.2	5,580	5.0
Fat (margarine, suet, butter, cooking fat, lard)	2,260	2.0	36	-	2,296	2.0
Food other than fat	396	0.4	20	-	416	0.4
Refuse, rubbish, debris	3,088	2.8	7,460	6.7	10,548	9.5
Soot	520	0.5	-	-	520	0.5
Other	4,008	3.6	2,248	2.0	6,256	5.6
Unknown	3,840	3.5	8,284	7.4	12,124	10.9
Total fires attended	44,252	39.8	66,900	60.2	111,152	100.0

SECTION II

Table 7A

MATERIAL FIRST IGNITED IN FIRES IN BUILDINGS IN RELATION TO THE SUPPOSED CAUSE

Reports from England and Wales

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Row No.	Supposed cause of fire	Material first ignited: Agriculture and Forestry			Chemicals - gases			Chemicals - oils					Chemicals - other				Paper, cardboard, wood not structural			Textiles						Furniture, furnishings, household goods				Building materials, structural woodwork							Miscellaneous materials						Row No.
		Crops, ricks and stacks	Loose straw or hay	Other agricultural material	Acetylene	Coal gas	Other gases	Animal and vegetable oils	Paraffin	Petrol in vehicles	Petrol not in vehicles	Other mineral oils	Oil mixed, waste and undefined	Paint, enamel, lacquer, varnish etc.	Pitch, tar	Rubber, vulcanite, ebonite	Other chemicals, including celluloid and celluloid goods	Paper, cardboard	Wooden packing materials	Timber	Clothing, on person	Clothing not on person	Cotton	Jute, hessian, sacking	Rags, including oily rags	Tarpaulins, waterproof sheeting, oilskins	Other textiles including canvas and canvas goods	Soft furnishings	Furniture	Linen articles, (unspecified), laundry	Seating in vehicles	Other furnishings	Building materials other than wood	Structural woodwork, external	Doors, window frames	Floors, stairs	Partitions, lining to walls	Roof	Timber in chimney, flue	Timber under hearth	Other fittings	Coal, coke	Electrical insulation	Food	Refuse, rubbish, debris	Soot	Other materials	Unknown material	Total	
1	Ashes, soot	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	76	24	8	-	-	-	20	4	-	4	4	8	4	4	36	4	16	4	-	-	12	24	-	-	252	-	80	-	600	1
2	Brazier	-	-	-	-	-	-	-	8	-	-	-	-	-	8	4	-	12	4	4	-	-	-	12	-	-	-	-	4	-	-	8	4	4	-	-	-	4	4	-	-	4	-	4	-	124	2
3	Camp fire, fire in open air (1)	8	12	-	-	8	-	-	-	8	8	-	-	-	-	-	4	44	12	-	-	24	4	4	4	-	8	52	12	-	4	12	-	-	12	-	4	4	-	-	-	-	-	68	-	324	4
4	Candle	-	-	-	-	-	-	-	-	-	-	-	-	28	4	-	-	40	12	4	-	16	-	4	8	-	12	168	68	12	-	64	72	56	16	432	280	188	268	28	164	-	-	-	8	12	448	64	2,476	5
5	Chimney on fire not confined to chimney	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	20	-	-	8	-	4	-	28	4	4	-	-	-	48	136	4	-	-	4	-	-	-	-	-	16	-	76	-	372	6
6	Chimney, sparks from (outside building)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	4	-	-	4	-	8	-	-	-	-	-	-	-	12	4	-	-	-	-	-	-	-	-	-	-	-	-	24	7
7	Cooker, cooking range, oven (other than electric, coal gas or oil) (1)	-	-	-	-	-	4	-	-	-	-	-	-	4	8	48	-	4	24	-	-	-	-	-	-	4	4	4	-	12	-	-	-	4	4	-	8	-	4	-	-	160	-	4	8	-	308	7
8	Electric cooker	-	-	-	4	-	8	4	-	-	4	-	-	20	4	4	4	-	16	-	-	-	4	-	8	8	-	-	12	4	-	-	8	-	-	4	4	-	8	-	4	-	8	928	4	-	24	-	1,080	8
9	fire, heater, radiator	4	-	-	4	4	-	4	-	4	4	-	-	-	12	16	80	8	-	76	124	-	4	-	-	8	308	160	32	-	68	4	-	-	32	8	-	-	12	-	16	4	4	-	148	-	1,148	9
10	iron	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	12	-	-	-	-	-	8	48	8	-	64	-	-	-	12	4	-	-	-	-	-	-	-	-	56	-	224	10
11	Electric motor	-	-	-	-	-	-	-	-	-	4	4	4	-	-	4	-	16	-	-	-	-	-	4	-	-	4	-	4	-	-	-	-	-	-	-	-	-	4	-	200	4	-	-	28	-	280	11
12	refrigerator	-	-	-	-	-	-	-	-	-	-	8	-	-	-	4	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	4	-	608	-	-	-	24	-	660	12
13	television	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	-	-	180	-	-	-	12	-	248	13
14	wire and cable (other than lead to apparatus)	8	4	-	-	456	4	-	-	40	-	8	4	-	-	-	8	32	16	-	-	4	-	4	-	-	12	8	4	8	8	4	12	8	-	88	16	20	-	-	8	-	920	-	8	-	176	-	1,888	14
15	wire and cable (lead to apparatus)	-	-	-	-	8	-	-	-	16	4	-	-	-	-	4	-	-	-	-	-	4	-	4	4	-	-	16	12	-	4	4	-	-	-	-	-	-	-	-	4	-	116	-	-	-	36	-	236	15
16	wireless	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	76	-	-	4	-	-	-	-	-	-	4	-	208	-	-	-	12	-	304	16
17	other apparatus	4	4	-	-	20	-	4	4	24	12	4	28	16	-	-	32	20	28	8	-	28	20	12	4	-	32	228	40	16	-	36	12	-	-	12	16	4	-	-	4	4	684	24	8	-	224	4	1,620	17
18	Explosives, fireworks	-	4	-	-	4	-	-	-	-	-	-	-	-	-	-	12	20	16	-	4	12	-	16	-	-	4	64	4	-	-	4	12	24	-	4	4	-	-	12	-	-	-	-	12	-	8	-	240	18
19	Fire in grate, igniting bedding, clothing, linen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	324	384	-	-	-	-	4	132	-	176	-	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,060	19
20	furniture, furnishings	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	264	472	-	-	148	-	-	-	-	-	-	-	-	-	-	-	-	-	-	884	20
21	structural timber under hearth	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,724	-	-	-	-	-	1,724	21
22	other materials	-	-	4	-	52	12	-	40	-	112	24	4	4	-	8	36	200	36	12	-	-	-	4	8	-	20	-	-	-	-	28	-	24	248	144	120	232	-	120	12	-	24	44	456	328	4	2,360	22
23	Fish frying range (all fuels)	-	-	-	-	-	-	100	-	-	-	-	-	-	-	-	128	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	576	-	4	8	-	824	23
24	Flue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	24	16	4	-	52	-	4	-	-	4	-	-	8	-	4	48	-	8	116	96	216	24	4	68	36	-	4	8	-	80	-	844	24
25	Furnace (coal or coke)	-	-	-	4	-	-	4	-	-	-	4	-	4	-	-	4	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	4	-	8	-	48	25
26	Gas, (coal) burner, jet, ring	-	-	-	76	4	-	4	4	8	12	4	4	4	20	32	12	16	-	16	12	-	-	-	-	-	-	32	-	-	-	8	-	-	4	4	-	4	-	-	4	-	-	44	-	-	24	-	352	26
27	cooker	-	-	-	116	-	8	4	8	8	4	-	16	8	4	28	4	4	-	36	48	-	4	-	-	-	44	-	36	-	68	4	-	-	4	8	-	-	-	-	-	764	-	-	52	-	1,280	27
28	fire, heater, radiator	-	-	-	24	-	-	-	-	-	-	-	-	-	8	8	-	4	4	36	28	-	-	4	-	-	8	36	4	-	-	4	-	-	24	12	-	-	4	-	-	-	8	-	24	-	240	28
29	other apparatus	-	-	-	72	4	-	-	-	16	-	36	36	8	12	44	12	24	-	-	28	-	4	4	-	-	4	36	16	12	-	32	8	-	8	32	24	12	-	-	4	48	8	4	52	-	600	29
30	Incubator, brooder (all fuels)	28	188	16	-	-	-	-	160	-	-	-	-	-	-	-	-	64	-	-	-	-	24	-	-	-	4	-	-	-	-	-	-	-	40	12	-	-	-	48	-	20	-	-	4	96	-	704	30
31	Intentional burning of grassland, gorse, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	52	-	-	-	-	-	-	-	-	-	12	-	68	31
32	Lightning	4	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	12	-	-	-	4	-	-	-	68	-	-	16	8	124	32
33	Lime	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	4	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	33
34	Locomotives, sparks from	4	8	24	-	-	-	-	-	-	-	4	-	-	-	4	-	8	-	-	-	-	4	-	4	-	-	-	-	-	-	20	68	-	4	-	28	-	-	4	-	-	-	-	16	-	220	34
35	Malicious ignition (1) (2)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	232	292	35
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	

For explanation of notes see page 23

SECTION II

Table 7A (Contd.)

MATERIAL FIRST IGNITED IN FIRES IN BUILDINGS IN RELATION TO THE SUPPOSED CAUSE

Reports from England and Wales

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

| Row No. | Supposed cause of fire | Material first ignited | | |

SECTION II

Table 73

MATERIAL FIRST IGNITED IN FIRES IN HAZARDS OTHER THAN BUILDINGS IN RELATION TO SUPPOSED CAUSE

Reports from England and Wales, 1956

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Row No.	Supposed cause of fire	Material first ignited: Agriculture and forestry			Chemicals - gases			Chemicals - oils						Chemicals - other				Paper, cardboard, wood, not structural			Textiles							Furniture furnishings, household goods					Building materials, structural woodwork			Miscellaneous material								Row No.
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	
		Crops, ricks and stacks	Loose straw or hay	Other agricultural materials	Acetylene	Coal gas	Other gases	Animal and vegetable oils	Paraffin	Petrol in vehicles	Petrol not in vehicles	Other mineral oils	Oil mixed, waste and undefined	Paint, enamel, lacquer, varnish etc.	Pitch, tar	Rubber, vulcanite, ebonite	Other chemicals, including celluloid and celluloid goods	Paper, cardboard	Wooden packing materials	Timber	Clothing on person	Clothing not on person	Cotton	Jute, hessian, sacking	Rags including oily rags	Tarpaulins, waterproof sheeting, oilskins	Other textiles including canvas and canvas goods	Soft furnishings	Furniture	Linen articles (unspecified), laundry	Seating in vehicles	Other furnishings	Building materials other than wood	Structural woodwork other than in buildings	Structural woodwork external	Coal, coke	Electrical insulation	Food	Refuse, rubbish, debris	Soot	Other materials	Unknown material	Total	
1	Aircraft, crashed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	84	84	1
2	Ashes, soot	-	4	132	-	-	-	-	-	-	-	4	12	4	4	-	4	140	20	24	4	-	8	8	4	8	4	-	-	-	-	-	-	32	-	24	-	-	1,100	-	96	-	1,636	2
3	Brazier	4	4	16	-	-	-	-	-	-	4	-	-	-	16	-	-	4	8	8	4	-	-	4	4	24	44	-	-	4	-	-	-	4	-	12	-	-	-	-	12	-	176	3
4	Camp fire, fire in open air (1)	4	-	172	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	4	-	8	-	196	4
5	Candle	-	-	4	-	-	-	-	-	-	-	-	-	-	-	4	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	5
6	Chimney on fire, not confined to chimney	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	6
7	Chimney sparks from outside building	16	4	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	8	-	12	-	84	7
8	Cooker, cooking range, oven, other than electric, coal, gas, or oil (1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-	16	8
9	Electric cooker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
10	fire, heater, radiator	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	10
11	Electric motor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	-	-	-	-	-	20	11
12	refrigerator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	-	-	-	-	-	20	12
13	wire and cable other than lead to apparatus	-	-	4	-	4	-	-	4	320	20	4	20	4	-	-	8	-	-	-	-	-	-	-	4	16	4	-	-	28	-	-	52	-	4	1,580	-	-	-	88	-	2,164	13
14	wire and cable lead to apparatus	-	-	-	-	-	-	-	-	60	-	4	-	-	-	8	4	-	-	-	-	4	-	-	4	4	-	4	-	-	28	-	-	20	-	-	220	-	-	-	32	-	392	14
15	wireless	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15
16	Electric other apparatus	-	-	4	-	12	8	-	-	152	16	-	20	-	-	-	8	4	-	-	-	-	-	4	12	-	-	-	-	-	16	4	-	44	-	4	800	-	-	-	64	-	968	16
17	Explosives, fireworks	24	4	200	-	-	-	-	-	4	-	-	-	-	-	-	8	136	4	4	16	-	-	4	4	16	8	-	-	-	8	4	-	8	-	-	-	-	68	-	64	8	592	17
18	Fish frying range all fuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	-	-	-	-	16	18
19	Flue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	44	-	20	-	-	-	4	-	-	-	20	-	-	4	52	-	-	-	-	-	-	4	-	152	19
20	Furnace coal or coke	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	20
21	Gas (coal) burner, jet, ring	-	-	-	-	164	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	168	21
22	cooker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	4	22
23	fire, heater, radiator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23
24	other apparatus	-	-	-	-	180	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	4	200	24
25	Incubator, brooder (all fuels)	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	4	16	25
26	Intentional burning of grassland, gorse, etc.	8	-	900	-	-	-	-	-	-	-	-	4	-	-	-	4	-	4	12	-	-	-	-	-	-	-	-	-	-	-	-	-	28	-	-	-	-	4	-	12	-	976	26
27	Lightning	12	-	8	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	20	-	-	-	-	-	48	27
28	Lime	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	4	16	28
29	Locomotives, sparks from	124	68	7,864	-	-	-	-	-	-	-	-	12	-	-	4	12	20	40	108	4	-	-	-	4	32	24	-	-	-	-	-	4	360	-	-	12	4	112	-	172	-	8,980	29
30	Malicious ignition (1) (2)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	124	124	30
31	Matches	4	4	712	-	8	8	-	16	16	20	4	4	-	-	-	4	128	8	20	-	-	-	-	4	-	-	4	-	-	-	-	-	-	-	-	-	-	164	-	40	-	1,168	31
32	Matches, children playing with	192	156	12,496	-	20	4	-	-	32	20	4	4	8	-	28	-	400	44	132	-	4	4	16	24	52	24	-	4	-	52	-	4	96	-	-	4	-	3,224	-	384	-	17,432	32
33	Mechanical heat and sparks	-	-	4	-	56	-	-	-	48	8	8	60	-	-	144	24	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	4	-	-	-	4	-	-	88	-	452	33
34	Metal, hot	-	-	-	-	-	-	-	-	4	-	-	12	-	4	4	-	4	-	4	-	-	-	4	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	4	-	44	34
35	Naked light (1) (3)	24	8	748	-	4	4	-	-	8	4	-	8	-	-	4	4	20	12	16	-	-	4	4	4	8	4	-	4	-	8	-	-	16	-	-	-	-	116	-	68	-	1,100	35
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	

For explanation of notes see page 23

SECTION II

Table 7B (Contd.)

MATERIAL FIRST IGNITED IN FIRES IN HAZARDS OTHER THAN BUILDINGS IN RELATION TO SUPPOSED CAUSE

Reports from England and Wales, 1956

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Row No.	Supposed cause of fire	Material first ignited																																				Row No.
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	
		Agriculture and forestry			Chemicals - gases			Chemicals - oils						Chemicals - other				Paper, cardboard, wood, not structural			Textiles								Furniture, furnishings, household goods					Building materials, structural woodwork			Miscellaneous material							
		Crops, ricks and stacks	Loose straw or hay	Other agricultural materials	Acetylene	Coal gas	Other gases	Animal and vegetable oils	Paraffin	Petrol in vehicles	Petrol not in vehicles	Other mineral oils	Oil mixed, waste and undefined	Paint, enamel, lacquer, varnish etc.	Pitch, tar	Rubber, vulcanite, ebonite	Other chemicals, including celluloid and celluloid goods	Paper, cardboard	Wooden packing materials	Timber	Clothing on person	Clothing not on person	Cotton	Jute, hessian, sacking	Rags including oily rags	Tarpaulins, waterproof sheeting, oilskins	Other textiles including canvas and canvas goods	Soft furnishings	Furniture	Linen articles, (unspecified), laundry	Seating in vehicles	Other furnishings	Building materials other than wood	Structural woodwork other than in buildings	Structural woodwork external	Coal, coke	Electrical insulation	Food	Refuse, rubbish, debris	Soot	Other materials	Unknown material	Total	
36	Oil, blowlamp	4	4	8	-	8	-	-	4	4	-	-	-	-	4	-	4	-	-	-	-	-	-	-	-	8	-	-	-	-	-	4	4	-	-	-	-	-	4	-	60	36
37	engine (including petrol)	-	16	8	-	-	-	-	8	1,644	4	100	76	4	-	4	16	4	4	-	-	16	-	68	84	20	16	8	-	-	4	-	48	-	-	28	-	8	-	108	-	2,296	37
38	lamp	-	-	8	-	4	8	-	32	20	8	-	12	-	-	8	4	-	-	-	-	-	-	4	-	24	12	-	-	-	8	-	-	-	-	4	-	8	-	20	-	184	38
39	stove	-	-	12	-	-	-	-	24	-	-	4	4	-	4	-	-	-	-	4	-	-	-	-	-	-	8	20	-	-	-	4	-	4	-	-	-	-	-	4	-	92	39
40	tractor	40	20	28	-	-	-	-	44	82	-	4	-	-	-	-	-	-	-	-	-	-	-	4	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	236	40
41	other apparatus	12	20	36	-	-	-	-	4	12	-	28	24	-	8	4	-	-	4	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	4	-	-	-	16	-	176	41
42	Oxyacetylene cutting and welding apparatus	-	4	16	16	20	4	-	-	8	-	4	48	4	12	12	16	4	-	56	-	4	8	8	4	4	-	-	-	-	8	-	-	-	-	68	-	-	-	28	-	72	-	428	42
43	Rubbish burning	132	124	3,736	-	-	-	-	-	-	8	4	28	4	-	60	16	44	160	184	8	4	-	8	4	20	20	-	4	-	-	-	4	152	-	-	-	-	1,156	-	300	4	6,184	43
44	Slow combustion stove igniting structural woodwork	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44
45	Other materials	-	-	-	-	-	8	-	-	-	4	-	-	-	180	-	80	-	8	24	-	4	-	4	4	12	8	-	-	-	-	8	-	48	-	-	-	-	4	-	32	-	408	45
46	Smoking materials	108	92	4,172	-	8	-	-	-	8	24	-	28	-	4	8	12	144	40	16	-	16	16	32	28	144	92	32	-	-	88	24	4	80	-	-	-	-	656	-	312	-	6,188	46
47	Spontaneous combustion in rubbish	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	112	-	-	-	112	47
48	Spontaneous combustion in other materials	20	4	28	-	-	-	-	-	-	-	-	12	-	-	-	28	-	-	-	-	-	-	20	12	-	12	-	-	-	-	4	-	-	12	-	8	-	-	-	20	-	180	48
49	Static electricity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49
50	Steamroller, engine, traction engine	-	-	4	-	-	-	-	-	-	-	4	-	-	-	-	-	-	4	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	50
51	Sun's rays	-	8	72	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	88	51
52	Taper, lighted paper or sticks	4	4	68	-	-	-	-	-	-	-	4	8	-	-	-	4	32	-	4	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	12	-	4	-	148	52
53	Taper, lighted paper or sticks children playing with	4	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	4	-	-	-	24	53
54	Miscellaneous and undefined (4)	8	-	64	-	4	12	-	-	4	4	4	-	-	24	8	20	-	4	4	-	4	12	44	4	4	4	-	4	-	-	-	-	48	-	32	4	-	-	-	28	4	352	54
55	Unknown source of ignition	48	68	2,784	-	44	8	-	4	108	12	-	16	4	8	4	64	96	36	36	-	8	12	32	16	48	24	4	-	-	36	4	-	24	-	-	-	-	872	-	176	8,052	12,448	55
56	Total fires other than those in buildings	732	620	34,356	16	536	68	-	148	2,544	156	184	412	36	272	304	324	1,192	404	712	36	88	64	272	228	440	336	80	16	24	292	48	28	1,224	-	88	2,512	56	7,460	-	2,248	8,284	66,900	56
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	

For explanation of notes see page 23

SECTION II

TABLE 8

METHOD OF EXTINCTION OF FIRES

Reports from England and Wales, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Row No.	Method of extinction	Fires in buildings						Fires other than those in buildings						Total No. of fires		Row No.
		Extinguished by Fire Brigade		Extinguished before arrival of Fire Brigade		Total		Extinguished by Fire Brigade		Extinguished before arrival of Fire Brigade		Total				
		No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	
1	Burned out	-	-	848	0.8	848	0.8	-	-	1,612	1.4	1,612	1.4	2,460	2.2	1
2	Removal	2,468	2.2	1,172	1.1	3,640	3.3	616	0.6	380	0.3	996	0.9	4,636	4.2	2
3	Automatic sprinkler system	-	-	48	-	48	-	-	-	-	-	-	-	48	-	3
4	Beating	68	0.1	200	0.2	268	0.3	14,640	13.2	1,364	1.2	16,004	14.4	16,272	14.6	4
5	Smothering	288	0.3	1,044	0.9	1,332	1.2	52	-	400	0.4	452	0.4	1,784	1.6	5
6	Sand, earth, etc.	76	0.1	124	0.1	200	0.2	184	0.2	256	0.2	440	0.4	640	0.6	6
7	Water from buckets	2,460	2.2	3,256	2.9	5,716	5.1	552	0.5	1,108	1.0	1,660	1.5	7,376	6.6	7
8	Water from stirrup or hand pumps	2,976	2.7	40	-	3,016	2.7	248	0.2	16	-	264	0.2	3,280	3.0	8
9	Chemicals and chemical extinguishers	1,668	1.5	1,164	1.0	2,832	2.5	1,732	1.6	1,108	1.0	2,840	2.6	5,672	5.1	9
10	Two or more methods 4 - 9	112	0.1	336	0.3	448	0.4	936	0.8	236	0.2	1,172	1.0	1,620	1.5	10
11	Water from garden hose etc.	-	-	212	0.2	212	0.2	-	-	88	0.1	88	0.1	300	0.3	11
12	Hose reel jets (using water in tank only)	17,136	15.4	44	-	17,180	15.4	30,088	27.1	376	0.3	30,464	27.4	47,644	42.9	12
13	Hose reel jets (using more water than that in tank)	1,820	1.6	4	-	1,824	1.6	1,896	1.7	-	-	1,896	1.7	3,720	3.3	13
14	Jets from inside hose reel or inside hydrant	100	0.1	96	0.1	196	0.2	16	-	8	-	24	-	220	0.2	14
15	Hose reel jets and jets from inside hose reel or inside hydrant	28	-	-	-	28	-	8	-	-	-	8	-	36	-	15
16	Jets from pumps and hydrants	5,340	4.8	80	0.1	5,420	4.9	8,424	7.6	196	0.2	8,620	7.8	14,040	12.6	16
17	Other and undefined methods	460	0.4	584	0.5	1,044	0.9	96	0.1	264	0.2	360	0.3	1,404	1.3	17
18	Total fires attended	35,000	31.4	9,252	8.3	44,252	39.8	59,488	53.5	7,412	6.7	66,900	60.2	111,152	100.0	18

Notes on method of extinction -

1. "Removal" includes occurrences where (a) burning material was removed from the building, (b) gas supply was turned off. If the burning material was tackled with methods 3-11 before removing it from the building, then such occurrences were classified under whichever of these methods applied.
2. Methods 11-15 and method 16 include those occurrences in which methods 3-10 and 3-15 respectively may also have been used.
3. "Fires extinguished by Fire Brigade" include those fires which were tackled but not extinguished before the arrival of the Fire Brigade.

SECTION II

Table 9

BEHAVIOUR OF SPRINKLER SYSTEMS AT FIRES

Reports from England and Wales, 1956

(Frequencies observed in the analysis of a one-in-four sample of reports)

Note: These figures are not on a comparable basis with those in tables 1-8 or tables 10-12

Behaviour of sprinklers	Incidents in which the following number of heads were actuated						Total number of incidents
	Nil	1-5	6-10	11-20	More than 20	Number not reported	
Installed but did not operate:-							
(i) because insufficient heat was generated by the fire	43	-	-	-	-	-	43
(ii) because the seat of the fire was out of range of the sprinklers	2	-	-	-	-	-	2
(iii) because the fire was tackled and extinguished by other means	12	-	-	-	-	-	12
(iv) because the system was closed down for repairs etc.	2	-	-	-	-	-	2
Total	59	-	-	-	-	-	59
Operated, but did not control fire because:-							
(i) other means were used to extinguish the fire	-	1	-	-	-	-	1
(ii) fire was over the sprinkler heads or not in range of system	-	1	-	-	-	2	3
(iii) system not in commission, but water left in was insufficient to be effective	-	1	-	-	-	-	1
Total	-	3	-	-	-	2	5
Controlled, but did not extinguish the fire	-	37	4	4	3	2	50
Extinguished the fire	-	12	-	-	-	-	12
Number of calls to fires where sprinkler systems were installed.	59	52	4	4	3	4	126

Note: In addition to the above incidents, a sprinkler system was installed at a petrol filling station at the pumps outside, in this fire 5 heads were actuated and controlled the fire.

SECTION II

Table 10

PERSONS RESCUED OR ESCAPED BY EMERGENCY MEANS FROM FIRES

Reports from England and Wales, 1956

(Frequencies obtained from results of analysis of all reports)

Appliance or method used	Number of persons
Rescue with Fire Brigade assistance from	
Buildings	
Escape (hand operated)	35
Ladder, extension	56
first floor	32
turntable (mechanical)	6
other or undefined	75
Ladder and line	5
Line	-
Other apparatus	5
Without apparatus	88
Ships	1
Vehicles	1
Total	304
Rescue without F.B. assistance from	
Aircraft	-
Buildings	
Automatic Escape lines	2
Carried or assisted out	177
Jumping sheet	7
Ladder	97
Lowered from windows, roof, etc.	80
Other or undefined methods	9
Road vehicles	8
Ships	7
Caravans	-
Total	387
Escape by emergency means from	
Aircraft	
Baled out	3
Through exits or from debris	-
Thrown clear	-
Method not stated	-
Buildings	
Climbing over roof	42
Fixed fire escape	6
Jumping from upstairs window, roof	76
Ladder	26
Sliding down drainpipe, sheets, rope etc.	22
Through ground floor windows	17
Other or undefined methods	10
Road vehicles	3
Ships	9
Caravans	-
Total	214
Total persons rescued or escaped	905

SECTION II

Table 11

NATURE OF INJURIES OF CASUALTIES IN FIRES

Reports from England and Wales, 1956

(Frequencies obtained from results of analysis of all reports)

* Casualties who suffered shock in addition to another injury have been classified according to the nature of the other injury.

Nature of injury	Fire Brigade	Other Casualties	Total
Fatal casualties			
Burns and scalds	1	333	334
Overcome by gas or smoke	1	97	98
Other and undefined injuries	-	31	31
Total	2	461	463
Non-fatal casualties			
Burns and scalds	71	2,364	2,435
Bruises, cuts, abrasions	103	140	243
Dislocations, sprains, fractures	30	22	52
Overcome by gas or smoke	22	97	119
More than one of the above injuries	8	41	49
* Shock	2	190	192
Other and undefined injuries	106	74	180
Total	342**	2,928	3,270
Total casualties	344**	3,389	3,733

** Change in reporting procedure excludes casualties requiring first-aid treatment only in 1954 and subsequent years.

SECTION II

Table 12

FIRES CLASSIFIED ACCORDING TO THE MONTH IN WHICH THEY OCCURRED

Reports from England and Wales, 1956

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Month of occurrence	Fires in buildings		Fires other than those in buildings		Total	
	No.	per cent	No.	per cent	No.	per cent
January	4,024	3.6	1,416	1.3	5,440	4.9
February	5,976	5.4	2,748	2.5	8,724	7.8
March	4,264	3.8	16,564	14.9	20,828	18.7
April	3,904	3.5	13,260	11.9	17,164	15.4
May	3,924	3.5	13,216	11.9	17,140	15.4
June	2,920	2.6	4,224	3.8	7,144	6.4
July	2,676	2.4	3,252	2.9	5,928	5.3
August	2,420	2.2	1,864	1.7	4,284	3.9
September	2,472	2.2	2,408	2.2	4,880	4.4
October	3,556	3.2	3,232	2.9	6,788	6.1
November	4,176	3.8	3,196	2.9	7,372	6.6
December	3,940	3.5	1,520	1.4	5,460	4.9
Total fires	44,252	39.8	66,900	60.2	111,152	100.0

SECTION III

STATISTICAL TABLES FOR FIRE BRIGADES IN SCOTLAND, 1956

Table 1

METHOD OF CALLING FIRE BRIGADES TO FIRES

Reports from Scotland, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Method of calling	Fire Brigade											Total	
	Glasgow	Lanark	Central	Western	South Western	South Eastern	Fife	Perth and Kinross	Angus	North Eastern	Nrrthern	No.	Per cent
By Special Fire Service methods													
Automatic fire alarm	8	-	4	-	-	-	-	4	-	-	-	16	0.2
Fire and police pillar box	28	16	8	4	-	8	-	-	-	4	-	68	0.6
Police telephone	432	144	48	196	36	308	36	16	156	196	32	1,600	15.2
Private fire telephone	4	-	-	4	20	4	-	-	-	-	-	32	0.3
Street fire alarm	244	-	-	4	-	-	-	-	-	-	-	248	2.4
Total	716	160	60	208	56	320	36	20	156	200	32	1,964	18.7
Exchange telephone	1,592	956	600	724	652	1,320	416	216	492	636	232	7,836	74.6
Running call	204	60	32	60	20	52	12	12	36	48	4	540	5.1
Late call	20	4	12	-	8	4	12	-	8	-	-	68	0.6
Other and undefined methods	24	8	-	4	4	24	4	4	20	8	-	100	1.0
Total fires	2,556	1,188	704	996	740	1,720	480	252	712	892	268	10,508	100.0

SECTION III

Table 2

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED

Reports from Scotland, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	Total	
	No.	Per cent
Fires in buildings classified according to trade or business carried on		
Agriculture		
Farming (not fruit or poultry) and horse and stock rearing	232	2.2
Allotments, market gardening, fruit and poultry farming	60	0.6
Total	292	2.8
Mining, quarrying and treatment of non-metalliferous mine and quarry products (excluding gas works)	16	0.2
Manufacture of bricks, pottery, glass, etc.	-	-
Manufacture of chemicals, dyes, explosives, paint, oils		
Chemicals	8	0.1
Explosives	4	-
Paints, varnish, oils, grease	24	0.2
Miscellaneous	4	-
Total	40	0.4
Manufacture of metals, machines, implements, conveyances		
Smelting, converting, refining, rolling of iron, steel	16	0.2
Extracting, refining, smelting of other metals	-	-
Founding, other secondary processes in metal working	36	0.3
Engineering (not marine or electrical)	36	0.3
Electrical installations, cables and apparatus	12	0.1
Construction and repair of vehicles	20	0.2
Shipbuilding and repairing, marine engineering	24	0.2
Cutlery and small tools	4	-
Other metal industries	20	0.2
Total	168	1.6
Manufacture of textiles and textile goods (not dress)		
Cotton	4	-
Wool, worsted and shoddy	-	-
Silk, natural and artificial	-	-
Other or mixed fibres	12	0.1
Miscellaneous	24	0.2
Textile dyeing, printing, bleaching, finishing	8	0.1
Total	48	0.5

Table 2 (Contd.)

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED

Reports from Scotland, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	Total	
	No.	Per cent
Fires in buildings classified according to trade or business carried on (contd.)		
Preparation of skins and leather and manufacture of goods of leather and leather substitute (not clothing or footwear)	4	-
Manufacture of clothing (not knitted) including footwear	12	0.1
Manufacture of food, drink, tobacco		
Food	84	0.8
Drink	12	0.1
Tobacco, cigars, cigarettes, snuff	-	-
Total	96	0.9
Woodworking: manufacture of cane and basket ware, furniture, fittings		
Woodworking and basket ware	84	0.8
Furniture (not metal or basket)	16	0.2
Fittings	-	-
Total	100	1.0
Paper making: manufacture of stationery and stationery requisites, printing and bookbinding	20	0.2
Building, decorating, contracting; slate and stone cutting and dressing	200	1.9
Rubber and synthetic rubber	8	0.1
Other manufacturing industries	16	0.2
Gas, water, electricity, sewage	36	0.3
Transport and communication		
Railway - stations, etc.	36	0.3
Road - garages, depots, etc.	108	1.0
Water - dock buildings other than warehouses	20	0.2
Air - aerodromes, etc.	4	-
Other communication (post, telephone, wireless)	16	0.2
Total	184	1.7
Commerce		
Departmental stores	16	0.1
Retail shops	460	4.4
Wholesale dealers	48	0.5
Dock and other warehouses	16	0.1
Total	540	5.1

SECTION III

Table 2 (Contd.)

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED

Reports from Scotland, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	Total	
	No.	Per cent
Fires in buildings classified according to trade or business carried on (contd.)		
Offices, Government and other		
Government departments	4	-
Local authorities	8	0.1
Other offices	48	0.5
Total	60	0.6
Navy, Army and Air Force establishments	32	0.3
Fire Service establishments	-	-
Professional establishments (other than offices): public institutions		
Educational establishments	60	0.6
Hospitals, homes, etc. for the care of the sick and infirm	32	0.3
Places of worship	48	0.5
Other public and professional services	56	0.5
Total	196	1.9
Places of public entertainment		
Cinemas and theatres	16	0.1
Other places of entertainment	72	0.7
Total	88	0.8
Private residential and personal service (including hotels and catering)		
Private residential houses	1,020	9.7
Private residential flats and maisonettes	1,932	18.4
Clubs, hotels, restaurants, public houses	276	2.6
Private huts, unoccupied houses, personal service	528	5.0
Total	3,756	35.7
Miscellaneous	396	3.8
Undefined	-	-
Total fires in buildings	6,308	60.0

SECTION III

Table 2 (Contd.)

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED

Reports from Scotland, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	Total	
	No.	Per cent
Fires other than those in buildings		
Agriculture and forestry		
Crops, standing or stooked (including hay fields)	16	0.2
Crops, ricks and stacks	112	1.1
Agricultural machinery	40	0.4
Agricultural waste	24	0.2
Other agricultural hazards	20	0.2
Allotments and gardens	32	0.3
Railway embankments	384	3.7
Grassland, heathland	1,324	12.6
Woods, forests, plantations	168	1.6
Single trees	92	0.9
Felled timber	12	0.1
Total	2,224	21.2
Transport and communications		
Aircraft	12	0.1
Railway rolling stock, etc.	52	0.5
Road vehicles - electrically driven	72	0.7
- oil, petrol or gas driven	528	5.0
- other	-	-
Water vessels - craft on inland waters	4	-
- ships in dock	72	0.7
- ships at sea	-	-
- marine structures	4	-
Total	744	7.1
Outdoor storage		
Chemicals, explosives, ammunition, oils, grease	28	0.3
Coal and coke	-	-
Refuse	356	3.4
Timber	236	2.2
Cotton, metal, packing materials, rubber etc.	92	0.9
Total	712	6.8
Other outdoor structures	520	4.9
Total fires other than those in buildings	4,200	40.0
Total fires attended	10,508	100.0

SECTION III

Table 3

FIRES CLASSIFIED ACCORDING TO HAZARDS IN WHICH FIRE STARTED FOR EACH BRIGADE

Reports from Scotland, 1956

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four).

Hazard in which fire started	Fire Brigades											Total
	Glasgow	Lanark	Central	Western	South Western	South Eastern	Fife	Perth and Kinross	Angus	North Eastern	Northern	
Fires in Buildings												
Industrial premises	260	84	40	100	52	36	52	8	48	48	-	728
Commercial premises and offices	236	44	12	36	36	116	8	12	40	44	16	600
Transport and public utilities	40	32	20	44	32	12	8	8	16	4	4	220
Dwellings	888	256	196	216	160	548	128	72	224	180	84	2,952
Other buildings	592	144	92	128	184	216	84	28	124	180	36	1,808
Total	2,016	560	360	524	464	928	280	128	452	456	140	6,308
Fires not in buildings												
Agriculture, grassland and forestry	144	332	204	272	156	468	116	88	76	272	96	2,224
Transport	192	80	84	64	60	92	28	20	48	64	12	744
Outdoor storage	108	72	28	68	28	160	36	4	124	76	8	712
Other outdoor hazards	96	144	28	68	32	72	20	12	12	24	12	520
Total	540	628	344	472	276	792	200	124	260	436	128	4,200
Total fires attended	2,556	1,188	704	996	740	1,720	480	252	712	892	268	10,508

SECTION III

Table 4

SUPPOSED CAUSE OF FIRES

Reports from Scotland, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Each item in the list of supposed causes of fire given in this table represents a group of causes which have a common source of ignition. In some cases the groups have been divided into sub-groups according to the nature of the material first ignited and in others according to the act with the source of ignition which led to the outbreak of fire. Certain causes were specified for the first time in 1954, the miscellaneous item is therefore not comparable with those for years previous to 1954.

Supposed cause of fire	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
Aircraft, crashed	-	-	8	0.1	8	0.1
Ashes, soot	384	3.6	88	0.8	472	4.5
Brazier	28	0.3	20	0.2	48	0.5
Camp fire, fire in open air(1)	4	-	44	0.4	48	0.5
Candle	48	0.5	4	-	52	0.5
Chimney on fire, not confined to chimney	604	5.7	-	-	604	5.7
Chimney sparks from (outside building)	60	0.6	-	-	60	0.6
Cooker, cooking range, oven other than electric, coal gas, or oil(1)	40	0.4	-	-	40	0.4
Electric cooker	92	0.9	-	-	92	0.9
fire, heater, radiator	112	1.1	-	-	112	1.1
iron	48	0.5	-	-	48	0.5
motor	40	0.4	12	0.1	52	0.5
refrigerator	92	0.9	-	-	92	0.9
television	16	0.2	-	-	16	0.2
wire and cable, other than lead to apparatus	240	2.3	172	1.6	412	3.9
wire and cable, lead to apparatus	12	0.1	24	0.2	36	0.3
wireless	36	0.3	-	-	36	0.3
other apparatus	156	1.5	112	1.1	268	2.6
Explosives, fireworks	28	0.3	28	0.3	56	0.5
Fire in grate igniting bedding, clothing, linen	52	0.5	-	-	52	0.5
Fire in grate, igniting furniture, furnishings	152	1.4	-	-	152	1.4
structural timber under hearth	328	3.1	-	-	328	3.1
other materials	268	2.6	-	-	268	2.6
Fish frying range (all fuels)	72	0.7	-	-	72	0.7
Flue	100	1.0	12	0.1	112	1.1
Furnace (coal or coke)	16	0.2	-	-	16	0.2
Gas (coal) burner, jet, ring	24	0.2	4	-	28	0.3
cooker	268	2.6	-	-	268	2.6
fire, heater, radiator	16	0.2	-	-	16	0.2
other apparatus	80	0.8	16	0.2	96	0.9

SECTION III

Table 4 (Contd.)

SUPPOSED CAUSE OF FIRES

Reports from Scotland, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Supposed cause of fire	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
Incubator brooder (all fuels)	44	0.4	-	-	44	0.4
Intentional burning of grassland, gorse etc.	-	-	88	0.8	88	0.8
Lightning	8	0.1	-	-	8	0.1
Lime	-	-	4	-	4	-
Locomotives, sparks from	44	0.4	692	6.6	736	7.0
Malicious ignition(1)(2)	16	0.2	-	-	16	0.2
Matches	124	1.2	288	2.7	412	3.9
Matches, children playing with	316	3.0	748	7.1	1,064	10.1
Mechanical heat or sparks	56	0.5	60	0.6	116	1.1
Metal, hot	-	-	12	0.1	12	0.1
Naked light(1)(3)	148	1.4	260	2.5	408	3.9
Oil, blowlamp	104	1.0	-	-	104	1.0
engine (including petrol)	12	0.1	128	1.2	140	1.3
lamp	20	0.2	12	0.1	32	0.3
stove	108	1.0	4	-	112	1.1
tractor	8	0.1	44	0.4	52	0.5
other apparatus	36	0.3	8	0.1	44	0.4
Oxyacetylene cutting and welding apparatus	56	0.5	44	0.4	100	1.0
Rubbish burning	96	0.9	220	2.1	316	3.0
Slow combustion stove igniting structural woodwork	36	0.3	-	-	36	0.3
other material	120	1.1	40	0.4	160	1.5
Smoking materials	700	6.7	304	2.9	1,004	9.6
Spontaneous combustion in rubbish	-	-	-	-	-	-
Spontaneous combustion in other materials	4	-	16	0.2	20	0.2
Static electricity	-	-	-	-	-	-
Steam roller, engine, traction engine	-	-	-	-	-	-
Sun's rays	8	0.1	16	0.2	24	0.2
Taper, lighted paper or sticks	48	0.5	32	0.3	80	0.8
Taper, lighted paper or sticks, children playing with	76	0.7	60	0.6	136	1.3
Miscellaneous	152	1.4	20	0.2	172	1.6
Unknown source of ignition	552	5.2	556	5.3	1,108	10.3
Total fires attended	6,308	60.0	4,200	40.0	10,508	100.0

Notes. (1) Causes specified first time in the Annual Statistical Tables for 1954.

(2) Malicious ignition is a general heading for suspected or proven arson or incendiarism.

(3) No further information given in original reports.

(4) Not comparable with the years prior to 1954.

SECTION III

Table 5A

SUPPOSED CAUSE OF FIRES IN BUILDINGS IN RELATION TO HAZARD IN WHICH FIRE STARTED

Reports from Scotland, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Row No.	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	Row No.
	Supposed cause of fire	Hazard in which fire started																											
		Agriculture	Mining, quarrying and treatment of non-metalliferous mine and quarry products (excluding gas works)	Manufacture of bricks, pottery, glass, etc.	Manufacture of chemicals, explosives, paints, oils	Manufacture of metals, machines, implements, conveyances	Manufacture of textiles and textile goods (not dress)	Manufacture of clothing (not knitted) including footwear, and goods of leather and leather substitute; preparation of skins and leather	Manufacture of food, drink, tobacco	Woodworking; manufacture of cane and basket ware, furniture, fittings	Paper making; manufacture of stationery and stationery requisites, printing and bookbinding	Building, decorating, contracting slate and stone cutting and dressing	Other manufacturing industries, including rubber and synthetic rubber	Gas, water, electricity, sewage	Transport and communication	Commerce; retail shops, including departmental stores	Commerce; wholesale dealers and warehouses	Offices; Government and other	Navy, Army, Air Force establishments	Fire Service establishments	Professional establishments (other than offices), public institutions	Places of public entertainment	Private residential houses	Private residential flats and maisonettes	Clubs, hotels, restaurants, public houses	Private huts, unoccupied houses, personal service	Miscellaneous and undefined	Total	
1	Ashes, soot	-	-	-	-	-	-	-	4	-	-	4	-	-	-	8	-	-	-	-	12	4	4	76	-	272	-	384	1
2	Brazier	-	-	-	-	8	-	-	-	4	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	8	28	2
3	Camp fire, fire in open air(1)	4	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	4	-	8	16	4	4	4	48	4
4	Candle	4	-	-	-	-	-	-	-	4	-	4	-	4	4	-	4	-	-	-	8	4	212	364	12	-	-	604	5
5	Chimney on fire, not confined to chimney	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	8	16	-	4	-	60	6
6	Chimney, sparks from (outside building)	4	-	-	-	-	-	-	-	4	-	4	-	4	4	-	4	-	-	-	-	8	16	20	4	-	-	40	7
7	Cooker, cooking range, oven, other than electric, coal gas or oil (1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	48	4	-	-	92	8
8	Electric, cooker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	4	4	-	-	-	-	32	32	-	-	-	112	9
9	fire, heater, radiator	-	-	-	-	4	-	-	-	8	-	-	-	-	8	4	-	-	-	-	-	-	8	36	-	-	-	48	10
10	iron																												

11	Electric, motor	-	-	-	-	-	4	-	4	4	-	4	4	-	4	16	-	-	-	-	-	-	-	-	-	-	-	40	11
12	refrigerator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	76	-	-	-	-	-	-	4	-	12	-	-	92	12
13	television	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	4	8	-	-	-	16	13
14	wire and cable other than lead to apparatus	4	-	-	-	4	-	-	-	-	-	-	-	-	20	40	-	-	-	-	4	-	68	72	16	12	-	240	14
15	wire and cable lead to apparatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	8	-	-	-	-	12	15
16	wireless	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	24	-	-	-	36	16
17	other apparatus	16	4	-	-	20	-	-	8	-	4	-	4	8	-	12	-	4	-	-	-	4	36	12	12	12	-	156	17
18	Explosives, fireworks	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	-	-	-	-	4	-	-	8	-	4	4	28	18
19	Fire in grate, igniting bedding, clothing, linen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	16	32	-	-	-	52	19
20	furniture, furnishings	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	56	92	-	-	-	152	20
21	stuctural timber under hearth	-	-	-	-	-	-	-	-	-	-	8	-	-	-	16	-	-	-	-	4	-	60	228	12	-	-	328	21
22	other materials	4	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	4	-	-	8	4	96	132	4	8	4	268	22
23	Fish frying range (all fuels)	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	4	-	-	-	-	-	64	-	-	72	23
24	Flue	4	-	-	-	-	8	4	4	-	-	4	-	-	8	12	-	4	8	-	8	-	12	-	20	4	-	100	24
25	Furnace (coal or coke)	-	-	-	-	12	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	25
26	Gas (coal) burner, jet, ring	-	-	-	-	-	-	4	-	-	4	-	-	-	-	12	-	-	-	-	4	-	-	-	-	-	-	24	26
27	cooker	-	-	-	-	-	-	-	4	-	-	-	-	-	-	20	-	-	-	-	8	-	68	148	16	4	-	268	27
28	fire, heater, radiator	-	-	-	-	4	-	-	-	-	-	-	-	-	-	4	-	4	-	-	-	-	-	-	4	-	-	16	28
29	other apparatus	-	-	-	-	4	-	-	8	-	-	-	-	4	-	12	-	-	-	-	16	-	8	20	4	4	-	80	29
30	Incubator, brooder (all fuels)	36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	44	30
31	Intentional burning of grassland, gorse, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31
32	Lightning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	-	-	-	8	32
33	Lime	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33
34	Locomotives, sparks from	4	-	-	-	-	-	-	-	-	-	-	-	-	20	-	-	-	-	-	-	-	4	-	-	4	12	44	34
35	Malicious ignition (1) (2)	4	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	4	-	-	-	-	-	4	16	35
36	Matches	8	-	-	4	8	-	4	-	-	-	8	-	-	-	8	-	4	4	-	-	8	-	28	-	4	36	124	36
37	Matches, children playing with	36	-	-	-	4	-	-	-	8	-	12	-	-	8	8	-	-	-	-	4	8	16	36	-	32	144	316	37
38	Mechanical heat or sparks	-	8	-	8	8	24	-	-	-	-	-	-	-	4	-	-	-	-	-	4	-	-	-	-	-	-	56	38
39	Metal, hot	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39
40	Naked light (1) (3)	8	-	-	-	-	-	-	-	4	-	20	-	-	-	16	-	-	-	-	-	4	8	20	-	16	52	148	40
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	

For explanation of notes see page 23

SECTION III

Table 5A (Contd.)

SUPPOSED CAUSE OF FIRES IN BUILDINGS IN RELATION TO HAZARD IN WHICH FIRE STARTED

Reports from Scotland, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Row No.	Supposed cause of fire	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	Row No.
		Hazard in which fire started																												
			Agriculture	Mining, quarrying and treatment of non-metalliferous mine and quarry products (excluding gas works)	Manufacture of bricks, pottery, glass, etc.	Manufacture of chemicals, explosives, paints, oils	Manufacture of metals, machines, implements, conveyances	Manufacture of textiles and textile goods (not dress)	Manufacture of clothing (not knitted) including footwear, and goods of leather and leather substitute; preparation of skins and leather	Manufacture of food, drink, tobacco	Woodworking; manufacture of cane and basketware, furniture, fittings	Paper making; manufacture of stationery and stationery requisites, printing and bookbinding	Building, decorating, contracting; slate and stone cutting and dressing	Other manufacturing industries, including rubber and synthetic rubber	Gas, water, electricity, sewage	Transport and communication	Commerce; retail shops, including departmental stores	Commerce; wholesale dealers and warehouses	Offices; Government and other	Navy, Army, Air Force establishments	Fire Service establishments	Professional establishments (other than offices), public institutions	Places of public entertainment	Private residential houses	Private residential flats and maisonettes	Clubs, hotels, restaurants, public houses	Private huts, unoccupied houses, personal service	Miscellaneous and undefined	Total	
41	Oil, blow lamp		-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	4	-	-	8	-	52	20	12	4	-	104	41
42	engine (including petrol)		-	-	-	-	-	-	-	-	8	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	4	-	12	42
43	lamp		4	-	-	-	-	-	-	-	-	-	4	-	-	-	12	-	4	8	-	-	-	4	-	-	-	-	20	43
44	stove		4	-	-	-	-	-	-	-	-	4	-	-	-	4	-	-	4	-	-	-	-	24	44	-	4	-	108	44
45	tractor		8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	45
46	Oil, other apparatus		4	-	-	-	-	-	-	8	-	-	-	4	-	-	-	8	-	-	-	-	4	8	-	-	-	-	36	46
47	Oxyacetylene cutting and welding apparatus		-	-	-	12	12	-	-	8	-	-	12	-	4	4	4	-	-	-	-	-	-	-	-	-	-	-	56	47
48	Rubbish burning		8	-	-	4	8	-	-	4	4	-	4	-	-	-	4	-	4	-	-	12	4	-	4	-	20	16	96	48
49	Slow combustion stove igniting																													
	structural woodwork		-	-	-	-	-	-	-	-	-	-	12	-	-	4	4	-	-	-	-	4	-	4	-	8	-	-	36	49
50	other materials		8	-	-	-	4	4	-	8	20	-	8	-	-	8	8	4	-	-	-	20	4	8	4	8	4	-	120	50

51	Smoking materials	24	4	-	-	32	8	-	16	16	8	16	-	4	36	68	28	20	8	-	28	20	44	256	32	16	16	700	51
52	Spontaneous combustion in rubbish	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52
53	Spontaneous combustion in other materials	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	53
54	Static electricity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54
55	Steam roller, engine, traction engine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55
56	Sun's rays	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	4	-	-	-	8	56
57	Taper, lighted paper or sticks	4	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	4	20	-	16	-	48	57
58	Taper, lighted paper or sticks, children playing with	4	-	-	-	-	-	-	-	-	-	16	-	-	-	8	-	-	-	-	-	4	-	12	-	12	20	76	58
59	Miscellaneous and undefined (4)	-	-	-	-	12	-	4	16	4	-	12	-	8	4	16	-	-	-	-	12	-	12	24	12	4	12	152	59
60	Unknown source of ignition	84	-	-	12	24	-	-	4	16	-	40	4	4	28	40	16	4	-	-	12	8	52	72	16	52	64	552	60
61	Total fires in buildings	292	16	-	40	168	48	16	96	100	20	200	24	36	184	476	64	60	32	-	196	88	1,020	1,932	276	528	396	6,308	61
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	

For explanation of notes see page 23.

SECTION III

Table 5B

SUPPOSED CAUSE OF FIRES OTHER THAN THOSE IN BUILDINGS IN RELATION TO HAZARD IN WHICH FIRE STARTED

Reports from Scotland, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Row No.	Supposed cause of fire	Column No.	1	2	3	4	5	6	7	8	9	10	11	12 *	13	14	15	16	17	18	19	20	21	22	Row No.
		Hazard in which fire started											Transport and communications					Outdoor storage							
			Crops	Agricultural machinery	Agricultural waste	Agricultural, other	Gardens and allotments	Railway embankments	Grassland, heathland	Woods, forests, plantations	Single trees	Felled timber	Air	Rail	Road-oil, petrol or gas driven vehicles	Road - other vehicles	Water	Chemicals, explosives, ammunition, oils, grease	Coal and Coke	Refuse	Timber	Other materials	Miscellaneous outdoor structures	Total	
1	Aircraft crashed		-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	8	1
2	Ashes, soot		-	-	-	-	4	8	-	-	-	-	-	4	12	-	-	4	-	44	4	4	4	88	2
3	Brazier		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	16	20	3
4	Camp fire, fire in open air(1)		-	-	-	-	-	-	36	8	-	-	-	-	-	-	-	-	-	-	-	-	-	44	4
5	Candle		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	5
6	Chimney on fire, not confined to chimney		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
7	Chimney, sparks from (outside building)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
8	Cooker, cooking range, oven, other than electric, coal gas or oil (1)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
9	Electric cooker		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
10	fire, heater, radiator		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
11	Electric motor		-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	12	11
12	refrigerator		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
13	wire and cable other than lead to apparatus		-	4	-	-	-	-	-	-	-	-	-	-	120	16	12	-	-	-	-	-	20	172	13
14	wire and cable lead to apparatus		-	-	-	-	-	-	-	-	-	-	-	-	24	-	-	-	-	-	-	-	-	24	14
15	wireless		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15

16	Electric, other apparatus	-	4	-	-	-	-	-	-	-	-	-	-	28	36	12	-	-	-	-	-	32	112	16
17	Explosives, fireworks	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	16	-	-	8	28	17
18	Fish frying range (all fuels)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18
19	Flue	-	-	-	4	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	4	12	19
20	Furnace (coal or coke)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20
21	Gas (coal) burner, jet, ring	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	21
22	fire, heater, radiator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22
23	other apparatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	12	16	23
24	Incubator, brooder, (all fuels)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24
25	Intentional burning of grassland, gorse, etc.	-	4	-	-	-	4	60	8	8	-	-	-	-	-	-	-	-	-	-	4	-	88	25
26	Lightning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26
27	Lime	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	4	27
28	Locomotives, sparks from	8	-	-	-	8	316	128	36	-	-	-	16	4	-	-	-	-	-	48	12	116	692	28
29	Malicious ignition (1)(2)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29
30	Matches	-	-	-	-	4	4	92	4	20	-	-	-	-	-	4	4	-	124	8	-	24	288	30
31	Matches, children playing with	20	-	4	-	4	16	460	12	12	4	-	4	4	-	4	-	-	92	44	16	52	748	31
32	Mechanical heat or sparks	-	-	-	-	-	-	-	-	-	-	4	-	44	8	-	4	-	-	-	-	-	60	32
33	Metal hot	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	8	12	33
34	Naked light (1)(3)	16	-	-	4	-	16	112	8	4	-	-	4	36	-	-	-	-	8	20	16	16	260	34
35	Oil blow lamp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35
36	Oil engine (including petrol)	-	-	-	-	-	-	-	-	-	-	-	-	124	-	-	-	-	-	-	-	4	128	36
37	lamp	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	4	12	37
38	stove	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	38
39	tractor	8	24	-	-	-	-	4	-	-	-	-	-	4	-	-	-	-	-	-	4	-	44	39
40	other apparatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	4	8	40
41	Oxyacetylene cutting and welding apparatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	-	-	-	4	-	20	44	41
42	Rubbish burning	8	-	4	4	12	-	80	20	8	4	-	4	-	-	4	-	-	24	36	4	8	220	42
43	Slow combustion stove igniting structural woodwork	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43
44	other materials	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	32	40	44
45	Smoking materials	12	-	8	-	-	-	136	16	4	4	-	4	60	-	8	-	-	4	8	16	24	304	45
46	Spontaneous combustion in rubbish	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46
47	Spontaneous combustion in other materials	4	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	-	16	47
48	Static electricity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48
49	Steam roller, engine, traction engine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49
50	Sun's rays	-	-	-	-	-	-	8	8	-	-	-	-	-	-	-	-	-	-	-	-	-	16	50
51	Taper, lighted paper or sticks	-	-	-	-	-	-	4	8	-	-	-	-	-	-	-	4	-	-	-	-	16	32	51
52	Taper, lighted paper or sticks, children playing with	-	-	-	-	-	4	12	-	-	-	-	-	4	-	-	-	-	8	8	8	16	60	52
53	Miscellaneous and undefined (4)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	4	-	12	20	53
54	Unknown source of ignition	48	4	4	4	-	16	192	40	36	-	-	12	56	-	-	8	-	36	40	4	56	556	54
55	Total fires other than those in buildings	128	40	24	20	32	384	1,324	168	92	12	12	52	528	72	80	28	-	356	236	92	520	4,200	55
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	

For explanation of notes see page 23.

SECTION III

Table 6

MATERIAL FIRST IGNITED IN FIRES

Reports from Scotland, 1956

(Frequencies obtained by multiplying results of analysis of one-in-four sample of reports by four)

Material first ignited	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
Agriculture and Forestry						
Crops, ricks, stacks						
Barley	-	-	4	-	4	-
Hay	20	0.2	20	0.2	40	0.4
Straw	32	0.3	36	0.3	68	0.6
Stubble	-	-	4	-	4	-
Other	-	-	16	0.2	16	0.2
Loose straw or hay	72	0.7	16	0.2	88	0.9
Grass, heather, bracken	20	0.2	1,320	12.6	1,340	12.8
Trees, hedges, undergrowth brushwood, bushes, (including gorse), twigs, touchwood	-	-	544	5.2	544	5.2
Other agricultural materials	16	0.2	24	0.2	40	0.4
Total	160	1.5	1,984	18.9	2,144	20.4
Chemicals - gases						
Acetylene	16	0.2	4	-	20	0.2
Coal gas	216	2.1	24	0.2	240	2.3
Other gases	8	0.1	-	-	8	0.1
Total	240	2.3	28	0.2	268	2.5
Chemicals - oils						
Animal and vegetable oils	8	0.1	-	-	8	0.1
Mineral oil						
Paraffin	88	0.8	20	0.2	108	1.0
Petrol in vehicles	48	0.5	172	1.6	220	2.1
Petrol not in vehicles	36	0.3	12	0.1	48	0.4
Other mineral oils	20	0.2	8	0.1	28	0.3
Oil, waste and undefined	32	0.3	48	0.5	80	0.8
Total	232	2.2	260	2.5	492	4.7
Chemicals - other						
Celluloid (including films)	4	-	-	-	4	-
Paint, enamel, lacquer, varnish, stains and French polish	20	0.2	-	-	20	0.2
Pitch, tar	4	-	28	0.3	32	0.3
Rubber, vulcanite, ebonite	20	0.2	56	0.6	76	0.8
Other chemicals	72	0.7	24	0.2	96	0.9
Total	120	1.1	108	1.0	228	2.1
Paper, cardboard, wood (not part of a structure)						
Paper, cardboard	336	3.2	144	1.4	480	4.6
Wood chippings, flour, sawdust, shavings, wool	96	0.9	44	0.5	140	1.4
Wood barrels, boxes, cases, firewood, etc.	112	1.1	12	0.1	124	1.2
Timber	52	0.5	116	1.1	168	1.6
Total	596	5.7	316	3.0	912	8.7

SECTION III

Table 6 (Contd.)

MATERIAL FIRST IGNITED IN FIRES

Reports from Scotland, 1956

(Frequencies obtained by multiplying results of analysis of one-in-four sample of reports by four)

Material first ignited	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
Textiles						
Canvas and canvas goods	8	0.1	12	0.1	20	0.2
Clothing on person	8	0.1	-	-	8	0.1
Clothing not on person	152	1.4	-	-	152	1.4
Cotton	12	0.1	8	0.1	20	0.2
Jute, hessian, sacking	108	1.0	20	0.2	128	1.2
Rags (including oily rags)	32	0.3	8	0.1	40	0.4
Tarpaulin, waterproof sheeting, oilskins	16	0.2	36	0.3	52	0.5
Other textiles	44	0.4	8	0.1	52	0.5
Total	380	3.6	92	0.9	472	4.5
Furniture, furnishings, household goods						
Bedding	140	1.3	12	0.1	152	1.4
Carpets, rugs	60	0.6	4	-	64	0.6
Curtains	68	0.6	4	-	72	0.6
Furniture	364	3.5	4	-	368	3.5
Linen articles (unspecified), laundry	8	0.1	-	-	8	0.1
Seating in vehicles	4	-	28	0.3	32	0.3
Other furnishings	112	1.1	-	-	112	1.1
Total	756	7.2	52	0.5	808	7.7
Building materials, structural woodwork						
Building materials other than wood	60	0.6	-	-	60	0.6
Structural woodwork						
External	140	1.3	-	-	140	1.3
Internal						
Door, window frame	76	0.7	-	-	76	0.7
Floor, stairs	320	3.0	-	-	320	3.0
Partitions, linings to walls	124	1.1	-	-	124	1.1
Roof	236	2.2	-	-	236	2.2
Timber in chimney, flue	76	0.7	-	-	76	0.7
Timber under hearth	348	3.3	-	-	348	3.3
Other fittings	92	0.9	-	-	92	0.9
Not known whether internal or external	116	1.1	-	-	116	1.1
Structural woodwork hazards other than buildings	-	-	180	1.7	180	1.7
Total	1,588	15.1	180	1.7	1,768	16.8
Miscellaneous						
Coal, coke	20	0.2	-	-	20	0.2
Electrical insulation	280	2.7	244	2.3	524	5.0
Fat (margarine, suet, butter, cooking fat, lard)	304	2.9	4	-	308	2.9
Food other than fat	48	0.5	-	-	48	0.5
Refuse, rubbish, debris	576	5.5	372	3.6	948	9.1
Soot	36	0.3	-	-	36	0.3
Other	564	5.3	204	1.9	768	7.3
Unknown	408	3.9	356	3.4	764	7.3
Total fires attended	6,308	60.0	4,200	40.0	10,508	100.0

SECTION III

Table 7A

MATERIAL FIRST IGNITED IN FIRES IN BUILDINGS IN RELATION TO THE SUPPOSED CAUSE

Reports from Scotland, 1956

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Row No.	Supposed cause of fire	Material first ignited																																										Row No.
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	
		Agriculture and Forestry			Chemicals - gases			Chemicals - oils						Chemicals - other				Paper cardboard, wood not structural			Textiles							Furniture, furnishings, household goods				Building materials, structural woodwork									Miscellaneous materials								
		Crops, ricks and stacks	Loose straw or hay	Other agricultural material	Acetylene	Coal gas	Other gases	Animal and vegetable oils	Paraffin	Petrol in vehicles	Petrol not in vehicles	Other mineral oils	Oil mixed, waste and undefined	Paint, enamel, lacquer, varnish, etc.	Pitch, tar	Rubber, vulcanite, ebonite	Other chemicals, including celluloid and celluloid goods	Paper, cardboard	Wooden packing materials	Timber	Clothing, on person	Clothing not on person	Cotton	Jute, hessian, sacking	Rags, including oily rags	Tarpaulins, waterproof sheeting, oilskins	Other textiles including canvas and canvas goods	Soft furnishings	Furniture	Linen articles, (unspecified), laundry	Seating in vehicles	Other furnishings	Building materials other than wood	Structural woodwork, external	Doors, window frames	Floors, stairs	Partitions, lining to walls	Roof	Timber in chimney, flue	Timber under hearth	Other fittings	Coal, coke	Electrical insulation	Food	Refuse, rubbish, debris	Soot	Other materials	Unknown material	Total	
1	Ashes, soot	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52	20	-	-	-	-	4	-	-	-	4	-	-	-	-	-	-	4	-	-	4	-	-	-	-	280	-	-	8	-	384	1
2	Brazier	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	4	-	-	4	-	4	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	4	-	28	2
3	Camp fire, fire in open air(1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	4	3
4	Candle	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	4	4	4	-	-	12	-	-	-	-	-	32	4	-	-	4	4	8	4	84	52	116	44	16	88	-	-	-	-	-	112	8	604	5
5	Chimney on fire not confined to chimney	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	28	-	-	-	4	-	-	-	-	-	-	-	-	60	6
6	Chimney, sparks from (outside building)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	7
7	Cooker, cooking range, oven (other than electric, coal gas or oil) (1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	4	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	4	-	-	24	-	-	-	-	92	8
8	Electric cooker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	84	-	-	4	-	112	9
9	fire, heater, radiator	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	16	4	-	8	12	-	-	-	-	4	28	8	-	-	8	-	-	-	4	-	-	-	4	-	8	-	-	-	4	-	48	10
10	iron	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	12	-	-	4	-	-	-	12	-	-	-	-	-	-	-	-	-	8	-	40	11
11	motor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	32	-	-	-	4	-	92	12
12	refrigerator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	72	-	-	16	-	16	13
13	television	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	4	-	240	14
14	wire and cable (other than lead to apparatus)	4	-	-	-	108	-	-	-	12	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12	-	-	-	-	84	-	-	4	-	12	15
15	wire and cable (lead to apparatus)	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	16
16	wireless	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	16	-	-	-	-	-	-	4	-	-	-	-	-	8	-	-	4	-	156	17
17	other apparatus	-	-	-	-	20	-	-	-	12	-	-	12	-	4	-	-	-	8	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	68	4	-	-	16	-	28	18
18	Explosives, fireworks	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	4	-	-	-	4	-	-	-	-	-	-	4	4	-	-	-	-	-	-	-	-	-	-	-	8	-	52	19
19	Fire in grate, igniting bedding, clothing, linen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	-	-	-	-	-	12	-	8	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	152	20
20	furniture, furnishings	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	124	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	323	21
21	structural timber under hearth	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	328	-	-	-	-	-	-	268	22
22	other materials	-	-	-	-	4	-	-	4	-	4	4	-	-	-	-	-	8	8	-	-	-	-	4	4	-	-	-	-	-	-	-	12	-	8	56	16	24	20	-	24	-	-	-	-	32	36	-	72	23
23	Fish frying range (all fuels)	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	24	-	100	24
24	Flue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	4	12	8	32	4	-	-	-	-	-	24	-	16	25
25	Furnace (coal or coke)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	4	-	-	-	-	-	24	26
26	Gas, (coal) burner, jet, ring	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	4	-	-	-	-	-	-	-	-	-	8	4	-	-	4	-	-	-	-	-	-	-	-	-	-	268	27
27	cooker	-	-	-	-	20	-	-	-	-	-	-	4	-	-	-	4	4	4	-	-	12	-	-	-	-	-	24	-	-	-	16	-	-	8	-	-	-	-	4	-	-	164	-	-	4	-	18	28
28	fire, heater, radiator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	4	-	-	-	-	-	4	-	80	29
29	other apparatus	-	-	-	-	16	-	-	-	-	-	-	4	-	-	-	-	4	4	-	-	-	-	-	-	-	4	-	12	-	4	-	-	-	4	12	-	4	-	-	-	-	8	-	-	20	-	44	30
30	Incubator, brooder (all fuels)	4	8	4	-	-	-	-	4	-	-	-	-	-	-	-	-	-	4	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	4	-	-	31
31	Intentional burning of grassland, gorse, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32
32	Lightning	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	8	33
33	Lime	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34
34	Locomotives, sparks from	-	-	12	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	16	-	-	-	4	-	-	4	-	-	-	-	-	-	44	34
35	Malicious ignition (1)(2)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	16	35
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	

For explanation of notes see page 23

SECTION III

Table 7A (Contd.)

MATERIAL FIRST IGNITED IN FIRES IN BUILDINGS IN RELATION TO THE SUPPOSED CAUSE

Reports from Scotland, 1956

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Row No.	Supposed cause of fire	Material first ignited																																								Row No.
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	
		Agriculture and Forestry			Chemicals - gases			Chemicals - oils						Chemicals - other				Paper cardboard, wood not structural			Textiles							Furniture, furnishings, household goods				Building materials, structural woodwork								Miscellaneous materials								
		Crops, ricks and stacks	Loose straw or hay	Other agricultural material	Acetylene	Coal gas	Other gases	Animal and vegetable oils	Paraffin	Petrol in vehicles	Petrol not in vehicles	Other mineral oils	Oil mixed, waste and undefined	Paint, enamel, lacquer, varnish etc.	Pitch, tar	Rubber, vulcanite, ebonite	Other chemicals, including celluloid and celluloid goods	Paper, cardboard	Wooden packing materials	Timber	Clothing, on person	Clothing not on person	Cotton	Jute, hessian, sacking	Rags, including oily rags	Tarpaulins, waterproof sheeting, oilskins	Other textiles including canvas and canvas goods	Soft furnishings	Furniture	Linen articles, (unspecified), laundry	Seating in vehicles	Other furnishings	Building materials other than wood	Structural woodwork, external	Doors, window frames	Floors, stairs	Partitions, lining to walls	Roof	Timber in chimney, flue	Timber under hearth	Other fittings	Coal, coke	Electrical insulation	Food	Refuse, rubbish, debris	Soot	Other materials	Unknown material	Total	
36	Matches	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	4	-	-	-	-	-	-	-	84	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	24	-	124	36
37	Matches, children playing with	12	24	4	-	-	-	-	-	-	-	-	-	-	-	4	-	-	56	4	4	-	4	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	140	-	28	-	316	37
38	Mechanical heat or sparks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	-	56	38
39	Metal, hot	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39
40	Naked light (1)(3)	-	4	4	-	4	-	-	-	-	4	4	-	-	-	-	4	12	4	16	-	-	-	-	4	-	-	-	4	-	4	-	-	-	-	16	-	-	-	12	-	-	-	36	-	12	-	148	40
41	Oil, blow lamp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	4	-	-	-	-	-	16	36	12	-	24	-	-	4	-	-	-	-	4	-	104	41
42	engine (including petrol)	-	-	-	-	-	-	-	-	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	12	42
43	lamp	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	4	-	-	-	-	-	-	4	-	-	-	-	-	-	20	43
44	stove	-	-	-	-	4	-	64	-	8	4	-	4	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	-	-	4	-	-	-	-	8	-	108	44
45	tractor	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	8	45
46	other apparatus	4	-	4	-	-	-	-	-	-	-	4	8	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	4	-	-	-	-	-	-	-	4	-	36	46
47	Oxyacetylene cutting and welding apparatus	-	-	-	16	-	4	-	-	4	-	4	-	-	-	12	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	4	-	-	-	-	-	-	56	47
48	Rubbish burning	4	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	4	4	-	-	-	-	-	-	-	-	-	-	-	-	4	36	-	4	-	4	-	-	4	-	-	8	-	12	4	96	48
49	Slow combustion stove igniting structural woodwork	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	4	-	8	-	8	-	-	-	-	-	-	36	49
50	other materials	-	-	4	-	-	-	-	-	-	-	-	-	4	-	-	-	12	28	-	-	12	-	8	-	-	-	4	-	-	-	4	-	-	-	-	-	-	-	-	4	-	8	4	28	-	120	50
51	Smoking materials	16	24	4	-	4	-	-	-	-	-	-	-	-	-	-	4	84	60	4	-	48	8	28	8	8	24	84	156	-	4	20	4	4	4	12	-	-	-	-	-	-	-	36	-	52	-	700	51
52	Spontaneous combustion in rubbish	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52
53	Spontaneous combustion in other materials	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	53
54	Static electricity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54
55	Steam roller, engine, traction engine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55
56	Sun's rays	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	8	56
57	Taper, lighted paper or sticks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	4	-	12	-	8	-	-	-	-	-	4	-	-	-	-	-	4	4	-	-	-	-	-	-	-	4	-	4	-	48	57
58	Taper, lighted paper or sticks, children playing with	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	4	-	4	-	4	8	-	-	-	-	8	-	-	-	16	-	-	-	20	-	8	-	76	58
59	Miscellaneous and undefined (4)	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	12	12	8	-	-	4	-	8	-	-	-	12	8	-	-	-	-	-	-	24	12	4	-	-	8	8	-	8	-	-	20	-	152	59
60	Unknown source of ignition	4	4	-	-	4	-	-	-	4	-	-	4	-	-	-	4	20	8	12	-	4	-	4	4	-	-	-	4	-	-	12	-	8	-	4	4	-	-	-	8	-	-	-	24	-	32	380	552	60
61	Total fires in buildings	52	72	36	16	216	8	8	88	48	36	20	32	20	4	20	76	336	208	52	8	152	12	108	32	16	52	268	364	8	4	112	60	140	76	320	124	236	76	348	208	20	280	352	576	36	564	408	6,308	61
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	

For explanation of Notes see page 23

SECTION III

Table 73

MATERIAL FIRST IGNITED IN FIRES IN HAZARDS OTHER THAN BUILDINGS IN RELATION TO SUPPOSED CAUSE

Reports from Scotland, 1956

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Row No.	Supposed cause of fire	Material first ignited: Agriculture and forestry			Chemicals - gases			Chemicals - oils						Chemicals - other				Paper cardboard, wood not structural			Textiles						Furniture, furnishings, household goods				Building materials, structural woodwork		Miscellaneous material							Row No.
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	
		Crops, ricks and stacks	Loose straw or hay	Other agricultural materials	Acetylene	Coal gas	Other gases	Animal and vegetable oils	Paraffin	Petrol in vehicles	Petrol not in vehicles	Other mineral oils	Oil mixed, waste and undefined	Paint, enamel, lacquer, varnish etc.	Pitch, tar	Rubber, vulcanite, ebonite	Other chemicals, including celluloid and celluloid goods	Paper, cardboard	Wooden packing materials	Timber	Clothing on person	Clothing not on person	Cotton	Jute, hessian, sacking	Rags including oily rags	Tarpaulins, waterproof sheeting, oilskins	Other textiles including canvas and canvas goods	Soft furnishings	Furniture	Linen articles, (unspecified), laundry	Seating in vehicles	Other furnishings	Building materials other than wood	Structural woodwork other than in buildings	Structural woodwork external	Coal, coke	Electrical insulation	Food	Refuse, rubbish, debris	Soot	Other materials	Unknown material	Total	
1	Aircraft, crashed	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	8	1
2	Ashes, soot	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	4	-	4	4	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	56	-	-	-	88	2
3	Brazier	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	3
4	Camp fire, fire in open air(1)	-	-	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44	4
5	Candle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	5
6	Chimney on fire, not confined to chimney	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
7	Chimney sparks from outside building	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
8	Cooker, cooking range, oven, other than electric, coal, gas, or oil (1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
9	Electric cooker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
10	fire, heater, radiator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
11	motor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	4	12	11
12	refrigerator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
13	wire and cable other than lead to apparatus	-	-	-	-	-	-	-	-	20	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	140	-	-	8	172	13
14	wire and cable lead to apparatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	-	-	4	24	14
15	wireless	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15
16	other apparatus	-	-	-	-	-	-	-	-	12	-	-	-	-	4	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	8	-	-	76	-	-	4	112	16
17	Explosives, fireworks	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	-	-	28	17
18	Fish frying range all fuels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18
19	Flue	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	12	19
20	Furnace coal or coke	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20
21	Gas (coal) burner, jet, ring	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	21
22	fire, heater, radiator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22
23	other apparatus	-	-	-	-	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	23
24	Incubator, brooder (all fuels)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24
25	Intentional burning of grassland, gorse, etc.	-	-	80	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	88	25
26	Lightning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26
27	Lime	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	4	27
28	Locomotives, sparks from	8	-	540	-	-	-	-	-	-	-	-	-	-	-	4	-	-	4	20	-	-	-	4	-	4	-	-	-	-	-	-	72	-	-	-	-	4	-	32	-	892	28
29	Malicious ignition (1) (2)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29
30	Matches	-	-	124	-	-	-	-	4	-	4	-	4	-	-	-	-	24	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	120	-	4	-	288	30
31	Matches, children playing with	20	4	496	-	-	-	-	-	-	-	-	-	-	-	-	-	60	8	12	-	-	4	4	-	-	4	4	-	-	-	-	12	-	-	-	-	100	-	20	-	748	31
32	Mechanical heat and sparks	-	-	-	-	4	-	-	-	4	-	-	12	-	-	24	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	60	32
33	Metal, hot	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	4	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	33
34	Naked light (1) (3)	16	4	140	-	-	-	-	-	8	4	-	-	-	-	8	-	8	4	24	-	-	-	-	-	8	4	-	-	-	8	-	-	8	-	-	-	-	12	-	4	-	260	34
35	Oil, blowlamp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	

For explanation of notes see page 23

SECTION III

Table 7B (Contd.)

MATERIAL FIRST IGNITED IN FIRES IN HAZARDS OTHER THAN BUILDINGS IN RELATION TO SUPPOSED CAUSE

Reports from Scotland, 1956

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Row No.	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	Row No.
	Supposed cause of fire	Material first ignited																																										
		Agriculture and forestry			Chemicals - gases			Chemicals - oils						Chemicals - other				Paper, cardboard, wood, not structural			Textiles							Furniture, furnishings, household goods					Building materials, structural woodwork			Miscellaneous material								
		Crops, ricks and stacks	Loose straw or hay	Other agricultural materials	Acetylene	Coal gas	Other gases	Animal and vegetable oils	Paraffin	Petrol in vehicles	Petrol not in vehicles	Other mineral oils	Oil mixed, waste and undefined	Paint, enamel, lacquer, varnish etc.	Pitch, tar	Rubber, vulcanite, ebonite	Other chemicals, including celluloid and celluloid goods	Paper, cardboard	Wooden packing materials	Timber	Clothing on person	Clothing not on person	Cotton	Jute, hessian, sacking	Rags including oily rags	Tarpaulins, waterproof sheeting, oilskins	Other textiles including canvas and canvas goods	Soft furnishings	Furniture	Linen articles, (unspecified), laundry	Seating in vehicles	Other furnishings	Building materials other than wood	Structural woodwork other than in buildings	Structural woodwork external	Coal, coke	Electrical insulation	Food	Refuse, rubbish, debris	Soot	Other materials	Unknown material	Total	
36	Oil, engine (including petrol)	-	-	-	-	-	-	-	-	104	-	4	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	128	36
37	lamp	-	-	-	-	-	-	-	4	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	12	37
38	stove	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	4	38
39	tractor	8	4	4	-	-	-	-	4	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	44	39
40	other apparatus	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	40
41	Oxyacetylene cutting and welding apparatus	-	-	-	4	-	-	-	-	-	-	-	8	-	-	4	-	-	-	4	-	-	-	-	-	4	4	-	-	-	-	-	4	-	-	-	-	-	12	-	44	41
42	Rubbish burning	8	-	116	-	-	-	-	-	-	-	-	-	-	-	-	-	4	12	28	-	-	-	-	-	-	4	-	-	-	-	-	4	-	-	-	20	-	24	-	220	42
43	Slow combustion stove igniting structural woodwork	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43
44	Other materials	4	-	-	-	-	-	-	-	-	-	-	-	-	20	-	8	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	40	44
45	Smoking materials	12	-	188	-	-	-	-	4	-	-	4	-	-	-	-	-	32	4	-	-	-	4	-	-	12	4	8	-	-	16	-	-	8	-	-	-	8	-	20	-	304	45
46	Spontaneous combustion in rubbish	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46
47	Spontaneous combustion in other materials	4	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	47
48	Static electricity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48
49	Steamroller, engine, traction engine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49
50	Sun's rays	-	-	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	50
51	Taper, lighted paper or sticks	-	-	12	-	-	-	-	-	-	-	-	4	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	32	51
52	Taper, lighted paper or sticks children playing with	-	-	20	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	12	-	-	-	60	52
53	Miscellaneous and undefined (4)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	16	-	20	53
54	Unknown source of ignition	-	4	108	-	-	-	-	-	4	-	-	4	-	-	-	4	4	8	8	-	-	-	4	-	-	-	-	4	-	-	-	16	-	-	-	24	-	16	348	556	54
55	Total fires other than those in buildings	80	16	1,988	4	24	-	-	20	172	12	8	48	-	28	56	24	144	56	116	-	-	8	20	8	36	20	20	4	-	28	-	-	130	-	-	244	4	372	-	204	356	4,200	55
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	

For explanation of notes see page 23

SECTION III

Table 8

METHOD OF EXTINCTION OF FIRES

Reports from Scotland, 1956

(Frequencies obtained by multiplying results of analysis of one-in-four sample of reports by four)

Row No.	Method of extinction	Fires in buildings						Fires other than those in buildings						Total No. of fires		Row No.
		Extinguished by Fire Brigade		Extinguished before arrival of Fire Brigade		Total		Extinguished by Fire Brigade		Extinguished before arrival of Fire Brigade		Total				
		No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	
1	Burned out	-	-	20	0.2	20	0.2	-	-	56	0.5	56	0.5	76	0.7	1
2	Removal	340	3.2	92	0.9	432	4.1	48	0.5	16	0.1	64	0.6	496	4.7	2
3	Automatic sprinkler system	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
4	Beating	-	-	4	-	4	-	676	6.4	56	0.5	732	7.0	736	7.0	4
5	Smothering	24	0.2	24	0.2	48	0.4	-	-	16	0.2	16	0.2	64	0.6	5
6	Sand, earth, etc.	4	-	12	0.1	16	0.2	8	0.1	20	0.2	28	0.3	44	0.5	6
7	Water from buckets	164	1.6	308	3.0	472	4.5	60	0.6	24	0.2	84	0.8	556	5.3	7
8	Water from stirrup or hand pumps	1,176	11.2	-	-	1,176	11.2	88	0.8	-	-	88	0.8	1,264	12.0	8
9	Chemicals and chemical extinguishers	168	1.6	60	0.6	228	2.2	116	1.1	64	0.6	180	1.7	408	3.9	9
10	Two or more methods 4-9	40	0.4	40	0.4	80	0.8	64	0.6	24	0.2	88	0.8	168	1.6	10
11	Water from garden hose, etc.	-	-	12	0.1	12	0.1	-	-	8	0.1	8	0.1	20	0.2	11
12	Hose reel jets (using water in tank only)	2,360	22.5	8	0.1	2,368	22.5	1,868	17.8	4	-	1,872	17.8	4,240	40.3	12
13	Hose reel jets (using more water than that in tank)	376	3.6	-	-	376	3.6	180	1.7	-	-	180	1.7	556	5.3	13
14	Jets from inside hose reel or inside hydrant	4	-	8	0.1	12	0.1	-	-	-	-	-	-	12	0.1	14
15	Hose reel jets and jets from inside hose reel or inside hydrant	8	0.1	-	-	8	0.1	-	-	-	-	-	-	8	0.1	15
16	Jets from pumps and hydrants	908	8.6	8	0.1	916	8.7	756	7.1	-	-	756	7.1	1,672	15.9	16
17	Other and undefined methods	68	0.6	72	0.7	140	1.3	16	0.2	32	0.3	48	0.4	188	1.8	17
18	Total fires attended	5,640	53.7	668	6.4	6,308	60.0	3,880	36.9	320	3.1	4,200	40.0	10,508	100.0	18

Notes on methods of extinction

1. "Removal" includes occurrences where (a) burning material was removed from the building, (b) gas supply was turned off. If the burning material was tackled with methods 3-11 before removing it from the building, then such occurrences were classified under whichever of these methods applied.

2. Methods 11-15 and method 16 include those occurrences in which methods 3-10 and 3-15 respectively may also have been used.

3. "Fires extinguished by Fire Brigade" include those fires which were tackled but not extinguished before the arrival of the Fire Brigade.

SECTION III

Table 9

BEHAVIOUR OF SPRINKLER SYSTEMS AT FIRES

Reports from Scotland, 1956

(Frequencies observed in the analysis of a one-in-four sample of reports)

Note: These figures are not on a comparable basis with those in tables 1-8 or tables 10-12

Behaviour of sprinklers	Incidents in which the following number of heads were actuated						Total Number of incidents
	Nil	1-5	6-10	11-20	More than 20	Number not reported	
Installed but did not operate							
(i) because insufficient heat was generated by the fire	4	-	-	-	-	-	4
(ii) because fire was brought under control by other means	1	-	-	-	-	-	1
(iii) because valve of system was closed	1	-	-	-	-	-	1
TOTAL	6	-	-	-	-	-	6
Controlled but did not extinguish the fire	-	5	-	1	-	-	6
Extinguished the fire	-	-	-	-	-	-	-
Number of calls to fires where sprinkler systems were installed	6	5	-	1	-	-	12

Note: In addition to the above incidents a fire occurred in a ship (in port) which was equipped with a sprinkler system which failed to operate as there was insufficient heat to melt the sprinkler heads.

SECTION III

Table 10

PERSONS RESCUED OR ESCAPED BY EMERGENCY MEANS FROM FIRES

Reports from Scotland, 1956

(Frequencies obtained from results of analysis of all reports)

Appliance or method used	Number of persons
Rescue with Fire Brigade assistance from	
Buildings	
Escape (hand operated)	2
Ladder, extension	7
turntable (hand)	-
turntable (mechanical)	5
other or undefined	3
Other apparatus	-
Without apparatus	29
Total	46
Rescue without Fire Brigade assistance from	
Aircraft	1
Buildings	
Carried or assisted out	63
Jumping sheet	-
Ladder	7
Lowered from windows, roof, etc.	13
Other or undefined methods	-
Road vehicles	-
Total	84
Escaped by emergency means from	
Aircraft	
Baled out	2
Through exits or from debris	-
Thrown clear	1
Buildings	
Climbing over roof	2
Jumping from upstairs window, roof	8
Ladder	
Sliding down drainpipe, sheets, rope etc.	5
Through ground floor windows	9
Other and undefined methods	3
Railway train	1
Road vehicles	-
Ships	-
Total	31
Total persons rescued or escaped.	161

SECTION III

Table 11

NATURE OF INJURIES OF CASUALTIES IN FIRES

Reports from Scotland, 1956

(Frequencies obtained from results of analysis of all reports)

*Casualties who suffered shock in addition to another injury have been classified according to the nature of the other injury.

Nature of injury	Fire Brigade	Other Casualties	Total
Fatal casualties			
Burns and scalds	-	42	42
Overcome by gas or smoke	-	14	14
Other and undefined injuries	-	5	5
Total	-	61	61
Non-fatal casualties			
Burns and scalds	2	128	130
Bruises, cuts, abrasions	10	11	21
Dislocations, sprains, fractures	6	1	7
Overcome by gas or smoke	2	17	19
More than one of above injuries	-	6	6
*Shock	-	21	21
Other and undefined injuries	5	11	16
Total	25**	195	220
Total casualties	25**	256	281

** Change in reporting procedure excludes casualties requiring first-aid treatment only in 1954 and subsequent years.

SECTION III

Table 12

FIRES CLASSIFIED - ACCORDING TO THE MONTH IN WHICH THEY OCCURRED

Reports from Scotland, 1956

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Month of occurrence	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
January	612	5.8	80	0.8	692	6.6
February	684	6.5	152	1.4	836	8.0
March	556	5.3	836	8.0	1,392	13.2
April	544	5.2	936	8.9	1,480	14.1
May	572	5.4	784	7.5	1,356	12.9
June	516	4.9	328	3.1	844	8.0
July	384	3.7	276	2.6	660	6.3
August	316	3.0	168	1.6	484	4.6
September	376	3.6	148	1.4	524	5.0
October	552	5.3	176	1.7	728	6.9
November	616	5.9	204	1.9	820	7.8
December	580	5.5	112	1.1	692	6.6
Total fires	6,308	60.0	4,200	40.0	10,508	100.0

SECTION IV

STATISTICAL TABLES FOR FIRE BRIGADES IN NORTHERN IRELAND, 1956

Table 1

METHOD OF CALLING FIRE BRIGADES TO FIRES

Reports from Northern Ireland, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Method of calling	Fire Brigade				Total	
	North	South	West	Belfast	No.	Per cent
By Special Fire Service methods						
Automatic fire alarm	-	-	-	-	-	-
Fire and police pillar box	-	-	-	-	-	-
Police telephone	4	4	-	52	60	4.0
Private fire telephone	-	-	4	-	4	0.3
Street fire alarm	-	-	-	24	24	1.5
Total	4	4	4	76	88	5.8
Exchange Telephone	292	480	268	308	1,348	89.4
Running call	4	16	20	24	64	4.2
Late call	-	4	4	-	8	0.6
Other and undefined methods	-	-	-	-	-	-
Total fires attended	300	504	296	408	1,508	100.0

SECTION IV

Table 2

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED

Reports from Northern Ireland, 1956

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	Total	
	No.	Per cent
Fires in buildings classified according to trade or business carried on		
Agriculture		
Farming (not fruit or poultry) and horse and stock rearing	84	5.6
Allotments, market gardening, fruit and poultry farming	4	0.3
Total	88	5.8
Mining quarrying and treatment of non-metalliferous mine and quarry products (excluding gas works)	4	0.3
Manufacture of bricks, pottery, glass, etc.	-	-
Manufacture of chemicals, dyes, explosives, paints, oils		
Chemicals	-	-
Explosives	-	-
Paints, varnish, oil, grease	4	0.3
Miscellaneous	-	-
Total	4	0.3
Manufacture of metals, machines, implements, conveyances		
Smelting, converting, refining, rolling of iron, steel	-	-
Extracting, refining, smelting of other metals	-	-
Founding, other secondary processes in metal working	4	0.3
Engineering (not marine or electrical)	4	0.3
Electrical installations, cables and apparatus	-	-
Construction and repair of vehicles	-	-
Shipbuilding, and repairing, marine engineering	-	-
Cutlery and small tools	-	-
Other metal industries	-	-
Total	8	0.5
Manufacture of textiles and textile goods (not dress)		
Cotton	-	-
Wool, worsted and shoddy	-	-
Silk, natural and artificial	-	-
Other or mixed fibres	4	0.3
Miscellaneous	4	0.3
Textile dyeing, printing, bleaching, finishing	4	0.3
Total	12	0.8

SECTION IV

Table 2 (Contd.)

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED

Reports from Northern Ireland, 1956

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	Total	
	No.	Per cent.
Fires in buildings classified according to trade or business carried on (contd.)		
Preparation of skins and leather and manufacture of goods of leather and leather substitute (not clothing or footwear)	-	-
Manufacture of clothing (not knitted) including footwear	4	0.3
Manufacture of food, drink, tobacco		
Food	12	0.8
Drink	-	-
Tobacco, cigars, cigarettes, snuff	-	-
Total	12	0.8
Woodworking: manufacture of cane and basket ware, furniture, fittings		
Woodworking and basket ware	4	0.3
Furniture (not metal or basket)	4	0.3
Fittings	-	-
Total	8	0.5
Paper making: manufacture of stationery and stationery requisites, printing and bookbinding	-	-
Building, decorating, contracting: slate and stone cutting and dressing	36	2.4
Rubber and synthetic rubber	-	-
Other manufacturing industries	-	-
Gas, water, electricity, sewage	-	-
Transport and communication		
Railway - stations, etc.	8	0.5
Road - garages, depots, etc.	44	2.9
Water - dock buildings other than warehouses	4	0.3
Air - aerodromes etc.	-	-
Other communication (post, telephone, wireless)	-	-
Total	56	3.7
Commerce		
Departmental stores	-	-
Retail shops	76	5.0
Wholesale dealers	8	0.5
Dock and other warehouses	-	-
Total	84	5.6

SECTION IV

Table 2 (Contd.)

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED

Reports from Northern Ireland, 1956

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	Total	
	No.	Per cent
Fires in buildings classified according to trade or business carried on (contd.)		
Offices, Government and other		
Government departments	-	-
Local authorities	-	-
Other offices	4	0.3
Total	4	0.3
Navy, Army and Air Force establishments	8	0.5
Fire Service establishments	-	-
Professional establishments (other than offices); public institutions		
Educational establishments	12	0.8
Hospitals, homes etc. for care of the sick and infirm	8	0.5
Places of worship	8	0.5
Other public and professional services	4	0.3
Total	32	2.1
Places of public entertainment		
Cinemas and theatres	-	-
Other places of entertainment	20	1.3
Total	20	1.3
Private residential and personal service (including hotels and catering)		
Private residential houses	360	23.9
Private residential flats and maisonettes	28	1.9
Clubs, hotels, restaurants, public houses	72	4.8
Private huts, unoccupied houses, personal service	44	2.9
Total	504	33.4
Miscellaneous	20	1.3
Undefined	-	-
Total fires in buildings	904	59.9

Table 2 (Contd.)

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED

Reports from Northern Ireland, 1956

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	Total	
	No.	Per cent
Fires other than those in buildings		
Agriculture and forestry		
Crops, standing or stooked (including hay fields)	-	-
Crops, ricks and stacks	40	2.7
Agricultural machinery	36	2.4
Agricultural waste	-	-
Other agricultural hazards	8	0.5
Allotments and gardens	4	0.3
Railway embankments	48	3.2
Grassland, heathland	260	17.2
Woods, forests, plantations	-	-
Single trees	4	0.3
Felled timber	-	-
Total	400	26.5
Transport and communication		
Aircraft	-	-
Railway rolling stock etc.	-	-
Road vehicles - electrically driven	4	0.3
Road vehicles - oil, petrol, or gas driven	68	4.5
Road vehicles - other	-	-
Water vessels - craft on inland waters	-	-
Water vessels - ships in dock	-	-
Water vessels - ships at sea	-	-
Water vessels - marine structures	-	-
Total	72	4.8
Outdoor storage		
Chemicals, explosives, ammunition, oils, grease	-	-
Coal and coke	4	0.3
Refuse	32	2.1
Timber	12	0.8
Cotton, metal, packing materials, rubber etc.	24	1.6
Total	72	4.8
Other outdoor structures	60	4.0
Total fires other than those in buildings	604	40.1
Total fires attended	1,508	100.0

SECTION IV

Table 3

FIRES CLASSIFIED ACCORDING TO HAZARD IN WHICH FIRE STARTED FOR EACH BRIGADE

Reports from Northern Ireland, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Hazard in which fire started	Fire Brigades				Total
	North	South	West	Belfast	
Fires in buildings					
Industrial premises	24	12	12	40	88
Commercial premises and offices	16	20	12	40	88
Transport and public utilities	8	16	12	20	56
Dwellings	68	148	68	104	388
Other buildings	56	108	64	56	284
Total	172	304	168	260	904
Fires not in buildings					
Agriculture, grassland, forestry	108	152	100	40	400
Transport	8	20	12	32	72
Outdoor storage	8	8	12	44	72
Other outdoor hazards	4	20	4	32	60
Total	128	200	128	148	604
Total fires attended	300	504	296	408	1,508

SECTION IV

Table 4

SUPPOSED CAUSE OF FIRES

Reports from Northern Ireland, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Each item in the list of supposed causes of fire given in the table represents a group of causes which have a common source of ignition. In some cases the groups have been divided into sub-groups according to the nature of the material first ignited, and in others according to the act with the source of ignition which led to the outbreak of fire. Certain causes were specified for the first time in 1954, the miscellaneous item is therefore not comparable with those for years previous to 1954.

Supposed cause of fire	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
Aircraft, crashed	-	-	-	-	-	-
Ashes, soot	-	-	4	0.3	4	0.3
Brazier	-	-	-	-	-	-
Camp fire, fire in open air[1]	-	-	-	-	-	-
Candle	8	0.5	-	-	8	0.5
Chimney on fire, not confined to chimney	68	4.5	-	-	68	4.5
Chimney, sparks from (outside building)	24	1.6	4	0.3	28	1.9
Cooker, cooking range oven other than electric, coal gas, oil[1]	4	0.3	-	-	4	0.3
Electric cooker	12	0.8	-	-	12	0.8
fire, heater, radiator	28	1.9	-	-	28	1.9
iron	-	-	-	-	-	-
motor	4	0.3	-	-	4	0.3
refrigerator	-	-	-	-	-	-
television	-	-	-	-	-	-
wire and cable, other than lead to apparatus	36	2.4	48	3.2	84	5.6
wire and cable, lead to apparatus	4	0.4	12	0.8	16	1.1
wireless	-	-	-	-	-	-
other apparatus	16	1.0	12	0.8	28	1.9
Explosives, fireworks	-	-	-	-	-	-
Fire in grate, igniting bedding, clothing, linen	12	0.8	-	-	12	0.8
furniture, furnishing	16	1.0	-	-	16	1.0
structural timber under hearth	32	2.1	-	-	32	2.1
other materials	100	6.6	-	-	100	6.6
Fish frying range (all fuels)	28	1.9	-	-	28	1.9
Flue	4	0.3	-	-	4	0.3
Furnace (coal or coke)	-	-	-	-	-	-
Gas (coal) burner, jet, ring	-	-	-	-	-	-
cooker	4	0.3	-	-	4	0.3
fire, heater, radiator	8	0.5	-	-	8	0.5
other apparatus	4	0.3	-	-	4	0.3
Incubator, brooder (all fuels)	16	1.0	-	-	16	1.0

SECTION IV

Table 4 (Contd.)

SUPPOSED CAUSE OF FIRES

Reports from Northern Ireland, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Supposed cause of fire	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
Intentional burning of grassland, gorse, etc.	4	0.3	4	0.3	8	0.6
Lightning	-	-	-	-	-	-
Lime	-	-	-	-	-	-
Locomotives, sparks from	-	-	16	1.0	16	1.0
Malicious ignition (1)(2)	4	0.3	-	-	4	0.3
Matches	4	0.3	-	-	4	0.3
Matches, children playing with	8	0.5	40	2.7	48	3.2
Mechanical heat or sparks	-	-	4	0.3	4	0.3
Metal, hot	-	-	-	-	-	-
Naked light (1)(3)	4	0.3	16	1.0	20	1.3
Oil blow lamp	16	1.0	-	-	16	1.0
engine (including petrol)	8	0.5	8	0.5	16	1.0
lamp	16	1.0	4	0.3	20	1.3
stove	24	1.6	-	-	24	1.6
tractor	-	-	12	0.8	12	0.8
other apparatus	-	-	-	-	-	-
Oxyacetylene cutting and welding apparatus	16	1.0	4	0.3	20	1.3
Rubbish burning	16	1.0	16	1.0	32	2.1
Slow combustion stove igniting structural woodwork	4	0.3	-	-	4	0.3
other materials	12	0.8	-	-	12	0.8
Smoking materials	24	1.6	16	1.0	40	2.6
Spontaneous combustion in rubbish	-	-	-	-	-	-
Spontaneous combustion in other materials	4	0.3	-	-	4	0.3
Static electricity	-	-	-	-	-	-
Steam roller, engine, traction engine	-	-	-	-	-	-
Sun's rays	-	-	-	-	-	-
Taper, lighted paper or sticks	16	1.0	4	0.3	20	1.3
Taper, lighted paper or sticks, children playing with	-	-	-	-	-	-
Miscellaneous(4)	28	1.9	-	-	28	1.9
Unknown source of ignition	268	17.8	380	25.2	648	43.0
Total fires attended	904	59.9	604	40.1	1,508	100.0

Note. (1) Causes specified for the first time in the Annual Statistical Tables for 1954.
(2) Malicious ignition is a general term for suspected or proven arson or incendiarism.
(3) No further information given in original reports.
(4) Not comparable with the years prior to 1954.

SECTION IV

Table 5A

SUPPOSED CAUSE OF FIRES IN BUILDINGS IN RELATION TO HAZARD IN WHICH FIRE STARTED

Reports from Northern Ireland, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Row No.	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	Row No.
	Supposed cause of fire	Hazard in which fire started																											
		Agriculture	Mining, quarrying and treatment of non-metalliferous mine and quarry products (excluding gas works)	Manufacture of bricks, pottery, glass, etc.	Manufacture of chemicals, explosives, paints, oils	Manufacture of metals, machines, implements, conveyances	Manufacture of textiles and textile goods (not dress)	Manufacture of clothing (not knitted) including footwear, and goods of leather and leather substitute, preparation of skins and leather	Manufacture of food, drink, tobacco	Woodworking; manufacture of cane and basket ware, furniture, fittings	Paper making; manufacture of stationery and stationery requisites, printing and bookbinding	Building, decorating, contracting; slate and stone cutting and dressing	Other manufacturing industries, including rubber and synthetic rubber	Gas, water, electricity, sewage	Transport and communication	Commerce; retail shops, including departmental stores	Commerce; wholesale dealers and warehouses	Offices; Government and other	Navy, Army, Air Force establishments	Fire Service establishments	Professional establishments (other than offices), public institutions	Places of public entertainment	Private residential houses	Private residential flats and maisonettes	Clubs, hotels, restaurants, public houses	Private huts, unoccupied houses, personal service	Miscellaneous and undefined	Total	
1	Candle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	8	1
2	Chimney on fire, not confined to chimney	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64	-	-	4	-	68	2
3	Chimney, sparks from (outside building)	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	16	-	-	-	4	24	3
4	Cooker, cooking range, oven, other than electric, coal gas or oil (1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	4	4
5	Electric, cooker	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	-	-	-	12	5
6	fire, heater, radiator	-	-	-	-	4	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	12	-	-	-	-	28	6
7	motor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	4	7
8	wire and cable other than lead to apparatus	-	-	-	-	-	-	-	-	-	-	4	-	-	8	8	-	-	-	-	-	-	8	-	8	-	-	36	8
9	wire and cable lead to apparatus	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	4	9
10	other apparatus	4	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	8	-	-	-	-	16	10

11	Fire in grate, igniting bedding, clothing, linen	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	12	–	–	–	–	12	11
12	furniture and furnishings	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	16	–	–	–	–	16	12
13	structural timber under hearth	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	20	8	4	–	–	32	13
14	other materials	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	–	80	8	–	–	4	100	14
15	Fish frying range (all fuels)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	–	–	–	–	–	24	–	–	28	15
16	Flue	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	–	–	4	16
17	Gas (coal) cooker	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	–	–	–	–	4	17
18	fire, heater, radiator	–	–	–	–	–	–	–	–	–	–	–	–	4	–	–	–	–	–	–	–	–	–	4	–	–	8	18
19	other apparatus	–	–	–	–	–	–	–	–	–	–	–	–	–	4	–	–	–	–	–	–	–	–	–	–	–	4	19
20	Incubator, brooder (all fuels)	8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	8	–	16	20
21	Intentional burning of grassland, gorse, etc.	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	–	4	21
22	Malicious ignition (1) (2)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	–	4	22
23	Matches	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	–	–	–	–	–	–	4	23
24	Matches, children playing with	–	–	–	–	–	–	–	–	–	–	–	–	4	4	–	–	–	–	–	–	–	–	–	–	–	8	24
25	Naked light (1) (3)	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	–	–	–	–	–	–	4	25
26	Oil, blow lamp	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	–	12	–	–	–	–	16	26
27	engine (including petrol)	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	–	–	–	–	8	27
28	lamp	4	–	–	–	–	–	–	–	–	–	4	–	–	4	–	–	–	–	–	–	4	–	–	–	–	16	28
29	stove	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	16	8	–	–	–	24	29
30	Oxyacetylene cutting and welding apparatus	–	–	–	4	4	–	–	–	–	–	–	–	4	4	–	–	–	–	–	–	–	–	–	–	–	16	30
31	Rubbish burning	4	–	–	–	–	–	–	–	4	–	4	–	–	4	–	–	–	–	–	–	–	–	–	–	–	16	31
32	Slow combustion stove igniting structural woodwork	–	–	–	–	–	–	–	–	–	–	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	32
33	other materials	–	–	–	–	–	–	–	–	–	–	4	–	–	–	–	–	–	–	4	–	4	–	–	–	–	12	33
34	Smoking materials	–	–	–	–	–	–	–	–	–	–	–	–	8	–	–	–	–	–	8	–	4	–	4	–	–	24	34
35	Spontaneous combustion in rubbish	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	35
36	Spontaneous combustion in other materials	–	–	–	–	–	–	–	–	–	–	–	–	–	4	–	–	–	–	–	–	–	–	–	–	–	4	36
37	Taper, lighted paper or sticks	–	–	–	–	–	–	–	–	–	–	–	–	–	8	–	–	–	–	–	–	8	–	–	–	–	16	37
38	Miscellaneous and undefined (4)	–	–	–	–	–	8	4	4	–	–	–	–	–	–	–	–	–	–	–	–	4	–	8	–	–	28	38
39	Unknown source of ignition	60	4	–	–	–	–	–	8	4	–	12	–	–	20	24	4	4	4	–	4	20	52	–	12	24	12	268	39
40	Total fires in buildings	88	4	–	4	8	12	4	12	8	–	36	–	–	56	76	8	4	8	–	32	20	360	28	72	44	20	904	40
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	

For explanation of notes see page 23

SECTION IV

Table 5B

SUPPOSED CAUSE OF FIRES OTHER THAN THOSE IN BUILDINGS IN RELATION TO HAZARD IN WHICH FIRE STARTED

Reports from Northern Ireland, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Row No.	Supposed cause of fire	Hazard in which fire started																					Row No.
												Transport and communications					Outdoor storage						
		Crops	Agricultural machinery	Agricultural waste	Agricultural, other	Gardens and allotments	Railway embankments	Grassland, heathland	Woods, forests, plantations	Single trees	Felled timber	Air	Rail	Road-oil, petrol or gas driven vehicles	Road - other vehicles	Water	Chemicals, explosives, ammunition, oils, grease	Coal and coke	Refuse	Timber	Other materials	Miscellaneous outdoor structures	Total	
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
1	Ashes, soot	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	1
2	Chimney, sparks from (outside building)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	2
3	Electric wire and cable other than lead to apparatus	-	4	-	-	-	-	-	-	-	-	-	-	16	-	-	-	-	-	-	-	28	48	3
4	wire and cable lead to apparatus	-	-	-	-	-	-	-	-	-	-	-	-	8	4	-	-	-	-	-	-	-	12	4
5	other apparatus	-	4	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	4	12	5
6	Intentional burning of grassland, gorse, etc.	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	6
7	Locomotives, sparks from	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	16	7
8	Matches, children playing with	4	-	-	-	-	12	12	-	4	-	-	-	-	-	-	-	-	-	-	-	8	40	8
9	Mechanical heat or sparks	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	4	9
10	Naked light (1)(3)	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	4	-	4	-	16	10
11	Oil engine (including petrol)	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	8	11
12	lamp	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	4	12
13	tractor	-	8	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	12	13
14	Oxyacetylene cutting and welding apparatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	4	14
15	Rubbish burning	-	-	-	4	4	4	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	16	15
16	Smoking materials	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	4	16	16
17	Taper, lighted paper or sticks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	4	17
18	Unknown source of ignition	36	20	-	4	-	16	224	-	-	-	-	-	20	-	-	-	4	20	8	20	8	380	18
19	Total fires other than those in buildings	40	36	-	8	4	48	260	-	4	-	-	-	68	4	-	-	4	32	12	24	60	604	19
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	

For explanation of notes see page 23

SECTION IV

Table 6

MATERIAL FIRST IGNITED IN FIRES

Reports from Northern Ireland, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Material first ignited	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
Agriculture and Forestry						
Crops, ricks, stacks						
Barley	-	-	-	-	-	-
Hay	4	0.3	4	0.3	8	0.6
Straw	-	-	-	-	-	-
Stubble	-	-	-	-	-	-
Other	-	-	-	-	-	-
Loose straw or hay	20	1.3	-	-	20	1.3
Grass, heather, bracken	-	-	36	2.4	36	2.4
Trees, hedges, undergrowth, brushwood, bushes (including gorse), twigs, touchwood	-	-	44	2.9	44	2.9
Other agricultural materials	-	-	4	0.3	4	0.3
Total	24	1.6	88	5.9	112	7.5
Chemicals - gases						
Acetylene	4	0.3	-	-	4	0.3
Coal gas	12	0.8	-	-	12	0.8
Other gases	-	-	-	-	-	-
Total	16	1.1	-	-	16	1.1
Chemicals - oils						
Animal and vegetable oils	-	-	-	-	-	-
Mineral oil						
Paraffin	16	1.1	4	0.3	20	1.3
Petrol in vehicles	4	0.3	16	1.1	20	1.3
Petrol not in vehicles	16	1.1	-	-	16	1.1
Other mineral oils	4	0.3	-	-	4	0.3
Oil waste and undefined	4	0.3	-	-	4	0.3
Total	44	2.9	20	1.3	64	4.2
Chemicals - other						
Celluloid (including films)	-	-	-	-	-	-
Paint, enamel, lacquer, varnish, stains and French polish	4	0.3	-	-	4	0.3
Pitch, tar	-	-	-	-	-	-
Rubber, vulcanite, ebonite	4	0.3	8	0.5	12	0.8
Other chemicals	8	0.5	-	-	8	0.5
Total	16	1.1	8	0.5	24	1.6
Paper, cardboard, wood (not part of a structure)						
Paper, cardboard	24	1.6	8	0.5	32	2.1
Wood chippings, flour, sawdust shavings, wool	8	0.5	-	-	8	0.5
Wood barrels, boxes, cases, firewood etc.	20	1.3	-	-	20	1.3
Timber	-	-	4	0.3	4	0.3
Total	52	3.4	12	0.8	64	4.2

Table 6 (Contd.)

MATERIAL FIRST IGNITED IN FIRES

Reports from Northern Ireland, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Material first ignited	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
Textiles						
Canvas and canvas goods	4	0.3	-	-	4	0.3
Clothing on person	-	-	-	-	-	-
Clothing not on person	12	0.8	-	-	12	0.8
Cotton	4	0.3	-	-	4	0.3
Jute, hessian, sacking	8	0.5	-	-	8	0.5
Rags, (including oily rags)	4	0.3	-	-	4	0.3
Tarpaulin, waterproof sheeting, oilskins	4	0.3	-	-	4	0.3
Other textiles	8	0.5	-	-	8	0.5
Total	44	2.9	-	-	44	2.9
Furniture, furnishings, household goods						
Bedding	12	0.8	-	-	12	0.8
Carpets, rugs	-	-	-	-	-	-
Curtains	16	1.1	-	-	16	1.1
Furniture	16	1.1	-	-	16	1.1
Linen articles (unspecified), laundry	-	-	-	-	-	-
Seating in vehicles	-	-	-	-	-	-
Other furnishings	44	2.9	-	-	44	2.9
Total	88	5.8	-	-	88	5.8
Building materials, structural woodwork						
Building materials other than wood	44	2.9	-	-	44	2.9
Structural woodwork						
External	20	1.3	-	-	20	1.3
Internal						
Door, window frame	16	1.1	-	-	16	1.1
Floor, stairs	24	1.6	-	-	24	1.6
Partitions, linings to walls	20	1.3	-	-	20	1.3
Roof	24	1.6	-	-	24	1.6
Timber in chimney, flue	20	1.3	-	-	20	1.3
Timber under hearth	32	2.1	-	-	32	2.1
Other fittings	4	0.3	-	-	4	0.3
Not known whether internal or external	32	2.1	-	-	32	2.1
Structural woodwork hazards other than buildings	-	-	12	0.8	12	0.8
Total	236	15.6	12	0.8	248	16.4
Miscellaneous						
Coal, coke	4	0.3	-	-	4	0.3
Electrical insulation	12	0.8	76	5.0	88	5.8
Fat (margarine, suet, butter, cooking fat and lard)	52	3.4	-	-	52	3.4
Food other than fat	-	-	-	-	-	-
Refuse, rubbish, debris	8	0.5	12	0.8	20	1.3
Soot	4	0.3	-	-	4	0.3
Other	48	3.1	4	0.3	52	3.4
Unknown	256	17.0	372	24.7	628	41.7
Total fires attended	904	59.9	604	40.1	1,508	100.0

SECTION IV

Table 7B

MATERIAL FIRST IGNITED IN FIRES IN HAZARDS OTHER THAN BUILDINGS IN RELATION TO SUPPOSED CAUSE

Reports from Northern Ireland, 1956

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Row No.	Supposed cause of fire	Material first ignited: Agriculture and forestry: Crops, ricks and stacks	Agriculture and forestry: Loose straw or hay	Agriculture and forestry: Other agricultural materials	Chemicals - gases: Acetylene	Chemicals - gases: Coal gas	Chemicals - gases: Other gases	Chemicals - oils: Animal and vegetable oils	Chemicals - oils: Paraffin	Chemicals - oils: Petrol in vehicles	Chemicals - oils: Petrol not in vehicles	Chemicals - oils: Other mineral oils	Chemicals - oils: Oil mixed, waste and undefined	Chemicals - other: Paint, enamel, lacquer, varnish etc.	Chemicals - other: Pitch, tar	Chemicals - other: Rubber, vulcanite, ebonite	Chemicals - other: Other chemicals, including celluloid and celluloid goods	Paper, cardboard, wood not structural: Paper, cardboard	Paper, cardboard, wood not structural: Wooden packing materials	Paper, cardboard, wood not structural: Timber	Textiles: Clothing on person	Textiles: Clothing not on person	Textiles: Cotton	Textiles: Jute, hessian, sacking	Textiles: Rags including oily rags	Textiles: Tarpaulins, waterproof sheeting, oilskins	Textiles: Other textiles including canvas and canvas goods	Furniture, furnishings, household goods: Soft furnishings	Furniture, furnishings, household goods: Furniture	Furniture, furnishings, household goods: Linen articles, (unspecified), laundry	Furniture, furnishings, household goods: Seating in vehicles	Furniture, furnishings, household goods: Other furnishings	Building materials, structural woodwork: Building materials other than wood	Building materials, structural woodwork: Structural woodwork other than in buildings	Building materials, structural woodwork: Structural woodwork external	Miscellaneous material: Coal, coke	Miscellaneous material: Electrical insulation	Miscellaneous material: Food	Miscellaneous material: Refuse, rubbish, debris	Miscellaneous material: Soot	Miscellaneous material: Other materials	Unknown material	Total	Row No.
1	Ashes, soot	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	1
2	Chimney sparks from outside building	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	4	2
3	Electric wire and cable other than lead to apparatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48	-	-	-	-	-	48	3
4	wire and cable lead to apparatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	12	4
5	other apparatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	12	5
6	Intentional burning of grassland, gorse, etc.	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	6
7	Locomotives, sparks from	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	16	7
8	Matches, children playing with	4	-	28	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	8
9	Mechanical heat and sparks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	9
10	Naked light (1) (3)	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	4	16	10
11	Oil engine (including petrol)	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	11
12	lamp	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	12
13	tractor	-	-	-	-	-	-	-	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	13
14	Oxyacetylene cutting and welding apparatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	14
15	Rubbish burning	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	15
16	Smoking materials	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	16
17	Taper lighted paper or sticks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17
18	Unknown source of ignition	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	368	380	18
19	Total fires other than those in buildings	4	-	84	-	-	-	-	4	16	-	-	-	-	-	-	8	-	8	-	4	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	76	-	12	-	4	372	604	19
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	

For explanation of notes see page 23

SECTION IV

Table 7A

MATERIAL FIRST IGNITED IN FIRES IN BUILDINGS IN RELATION TO THE SUPPOSED CAUSE

Reports from Northern Ireland, 1956

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Row No.	Supposed cause of fire	Material first ignited																																											Row No.
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	
		Agriculture and Forestry			Chemicals - gases			Chemicals - oils						Chemicals - other				Paper, cardboard, wood not structural			Textiles							Furniture, furnishings, household goods				Building materials, structural woodwork								Miscellaneous materials									
		Crops, ricks and stacks	Loose straw or hay	Other agricultural material	Acetylene	Coal gas	Other gases	Animal and vegetable oils	Paraffin	Petrol in vehicles	Petrol not in vehicles	Other mineral oils	Oil, mixed waste and undefined	Paint, enamel, lacquer, varnish, etc.	Pitch, tar	Rubber, vulcanite, ebonite	Other chemicals, including celluloid and celluloid goods	Paper, cardboard	Wooden packing materials	Timber	Clothing, on person	Clothing not on person	Cotton	Jute, hessian, sacking	Rags, including oily rags	Tarpaulins, waterproof sheeting, oilskins	Other textiles including canvas and canvas goods	Soft furnishings	Furniture	Linen articles, (unspecified), laundry	Seating in vehicles	Other furnishings	Building materials other than wood	Structural woodwork, external	Doors, window frames	Floors, stairs	Partitions, lining to walls	Roof	Timber in chimney, flue	Timber under hearth	Other fittings	Coal, coke	Electrical insulation	Food	Refuse, rubbish, debris	Soot	Other materials	Unknown material	Total	
1	Candle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	1
2	Chimney on fire not confined to chimney	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	4	-	-	8	12	8	-	4	-	-	-	-	12	-	-	68	2
3	Chimney, sparks from (outside building)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	12	8	-	-	-	-	-	-	-	-	-	-	-	-	-	24	3
4	Cooker, cooking range, oven (other than electric, coal gas or oil) (1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	4	4
5	Electric cooker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	12	5
6	fire, heater, radiator	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	4	-	-	8	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	28	6
7	motor	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	7
8	wire and cable (other than lead to apparatus)	-	-	-	-	4	-	-	-	4	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	4	-	-	-	4	-	-	-	-	-	-	-	4	-	12	-	-	-	-	36	8
9	wire and cable (lead to apparatus)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	9
10	other apparatus	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	4	-	16	10
11	Fire in grate, igniting bedding, clothing, linen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	11
12	furniture and furnishings	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	8	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	12
13	structural timber under hearth	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	-	-	-	-	-	-	-	-	-	32	13
14	other materials	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	20	-	-	16	8	8	12	-	16	-	-	-	4	4	4	-	100	14
15	Fish frying range (all fuels)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	-	-	-	-	28	15
16	Flue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	16
17	Gas (coal) cooker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	4	17
18	fire, heater, radiator	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	8	18
19	other apparatus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	19
20	Incubator, brooder (all fuels)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	20
21	Intentional burning of grassland, gorse, etc.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	21
22	Malicious ignition (1)(2)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	22
23	Matches	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	23
24	children playing with	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	24
25	Naked light (1)(3)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	4	25
26	Oil, blow lamp	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	4	-	-	16	26
27	engine (including petrol)	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	8	27
28	lamp	-	4	-	-	-	-	-	-	4	-	-	4	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	28
29	stove	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	24	29
30	Oxyacetylene cutting and welding apparatus	-	-	-	4	-	-	-	-	-	-	-	4	-	-	4	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	30
31	Rubbish burning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	31
32	Slow combustion stove igniting structural woodwork	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	4	32
33	other materials	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	4	12	33
34	Smoking materials	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	4	4	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	34
35	Spontaneous combustion in rubbish	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35
36	Spontaneous combustion in other materials	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	36
37	Taper, lighted paper or sticks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	37
38	Miscellaneous and undefined (4)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	4	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	12	-	-	4	28	38
39	Unknown source of ignition	-	4	-	-	-	-	-	4	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	4	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	248	268	39
40	Total fires in buildings	4	20	-	4	12	-	-	16	4	16	4	4	4	-	4	8	24	28	-	-	12	4	8	4	4	12	28	16	-	-	44	44	20	16	24	20	24	20	32	36	4	12	52	8	4	48	256	904	40
	Column No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	

For explanation of notes see page 23

SECTION IV

Table 8

METHOD OF EXTINCTION OF FIRES

Reports from Northern Ireland, 1956

(Frequencies obtained by multiplying results of analysis of a one-in-four sample of reports by four)

Row No.	Method of extinction	Fires in buildings						Fires other than those in buildings						Total No. of fires		Row No.
		Extinguished by Fire Brigade		Extinguished before arrival of Fire Brigade		Total		Extinguished by Fire Brigade		Extinguished before arrival of Fire Brigade		Total				
		No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	No.	Per cent	
1	Burned out	-	-	12	0.8	12	0.8	-	-	52	3.4	52	3.4	64	4.2	1
2	Removal	56	3.7	4	0.3	60	4.0	-	-	20	1.3	20	1.3	80	5.3	2
3	Beating	-	-	-	-	-	-	140	9.3	20	1.3	160	10.6	160	10.6	3
4	Smothering	16	1.1	8	0.5	24	1.6	-	-	12	0.8	12	0.8	36	2.4	4
5	Sand, earth etc.	-	-	4	0.3	4	0.3	-	-	-	-	-	-	4	0.3	5
6	Water from buckets	32	2.1	104	6.9	136	9.0	4	0.3	4	0.3	8	0.6	144	9.6	6
7	Water from stirrup or hand pumps	64	4.2	-	-	64	4.2	12	0.8	-	-	12	0.8	76	5.0	7
8	Chemicals and chemical extinguishers	20	1.3	8	0.5	28	1.8	24	1.6	-	-	24	1.6	52	3.4	8
9	Two or more methods 3-8	4	0.3	8	0.5	12	0.8	20	1.3	4	0.3	24	1.6	36	2.4	9
10	Water from garden hose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
11	Hose reel jets (using water in tank only)	292	19.4	-	-	292	19.4	164	10.9	-	-	164	10.9	456	30.2	11
12	Hose reel jets (using more water than that in tank)	40	2.7	-	-	40	2.7	-	-	-	-	-	-	40	2.7	12
13	Jets from inside hose reel or inside hydrant	4	0.3	8	0.5	12	0.8	-	-	-	-	-	-	12	0.8	13
14	Jets from pumps and hydrants	216	14.3	4	0.3	220	14.6	108	7.2	4	0.3	112	7.4	332	22.0	14
15	Other and undefined methods	-	-	-	-	-	-	4	0.3	12	0.8	16	1.1	16	1.1	15
	Total fires attended	744	49.3	160	10.6	904	59.9	476	31.6	128	8.5	604	40.1	1,508	100.0	16

Notes on method of extinction

1. "Removal" includes occurrences where (a) burning material was removed from the building, (b) gas supply was turned off. If the burning material was tackled with methods 3-8 before removing it from the building, then such occurrences where classified under whichever of these methods applied.

2. Methods 11 & 12 and method 14 include those occurrences in which methods 3-9 and 3-12 respectively may also have been used.

3. "Fires extinguished by Fire Brigade" include those fires which were tackled but not extinguished before the arrival of the Fire Brigade.

SECTION IV

Table 9

BEHAVIOUR OF SPRINKLER SYSTEMS AT FIRES

Reports from Northern Ireland, 1956

In the one-in-four sample of reports there was only one incident reported at premises where sprinklers were installed. In this incident the fire was brought under control with 2 heads operating.

SECTION IV

Table 10

PERSONS RESCUED OR ESCAPED BY EMERGENCY MEANS FROM FIRES

Reports from Northern Ireland, 1956

(Frequencies obtained from results of analysis of all reports)

Appliance or method used	No. of persons
Rescue with Fire Brigade assistance from	
Aircraft	-
Buildings	
Ladder extension	-
other or undefined	6
Turntable mechanical	-
Other and undefined apparatus	-
Without apparatus	4
Total	10
Rescue without Fire Brigade assistance from	
Buildings	
Carried or assisted out	6
Lowered from windows, roof, etc.	9
Ladder	-
Road vehicles	-
Ships	-
Total	15
Escape by emergency means from	
Aircraft	
Through exits or from debris	-
Buildings	
Jumping from upstairs window, roof	2
Through ground floor windows	4
Other or undefined methods	-
Total	6
Total persons rescued or escaped	31

SECTION IV

Table 11

NATURE OF INJURIES OF CASUALTIES IN FIRES

Reports from Northern Ireland, 1956

(Frequencies obtained from results of analysis of all reports)

* Casualties who suffered shock in addition to another injury have been classified according to the nature of the other injury

Nature of Injury	Fire Brigades	Other Casualties	Total
Fatal casualties			
Burns and scalds	-	4	4
Other and undefined injuries	-	1	1
Total	-	5	5
Non-fatal casualties			
Burns and scalds	-	26	26
Bruises, cuts, abrasions	4	9	13
Dislocations, sprains, fractures	1	1	2
Overcome by gas or smoke	-	2	2
More than one of the above injuries	-	3	3
Shock*	-	5	5
Other and undefined injuries	2	1	3
Total	7**	47	54
Total casualties	7**	52	59

** Change in reporting procedure excludes casualties requiring first aid treatment only in 1954 and subsequent years.

SECTION IV

Table 12

FIRES CLASSIFIED ACCORDING TO THE MONTH IN WHICH THEY OCCURRED

Reports from Northern Ireland, 1956

(Frequencies obtained by multiplying the results of analysis of a one-in-four sample of reports by four)

Month of occurrence	Fires in buildings		Fires other than those in buildings		Total	
	No.	Per cent	No.	Per cent	No.	Per cent
January	76	5.0	16	1.1	92	6.1
February	108	7.2	28	1.9	136	9.0
March	104	6.9	104	6.9	208	13.8
April	96	6.4	144	9.5	240	15.9
May	88	5.8	72	4.8	160	10.6
June	72	4.8	84	5.6	156	10.3
July	44	2.9	52	3.4	96	6.4
August	36	2.4	28	1.9	64	4.2
September	52	3.4	16	1.1	68	4.5
October	52	3.4	20	1.3	72	4.8
November	84	5.6	28	1.9	112	7.4
December	92	6.1	12	0.8	104	6.9
Total fires	904	59.9	604	40.1	1,508	100.0

APPENDIX I

(A) DISCUSSION OF SAMPLE ANALYSIS IN SECTION I

The random sampling procedure adopted for each of the years 1951-1955 was similar to that used in 1956 which is described in part B below. The sampling fraction f varied on occasion and this affects the quantity $2\sqrt{\frac{(1-f)}{f}}$ used to multiply $\sqrt{\frac{p(100-p)}{N'}}$ or $\sqrt{\frac{n'(N-n')}{N'}}$ (see part B below). The values of the sampling fraction and the multiplier are shown in the following table:

Year	Sampling fraction f	Multiplier $2\sqrt{\frac{(1-f)}{f}}$
1951	1/2	2
1952	1/4	3.46
1953	1/5	4
1954	1/2	2
1955	1/4	3.46
1956	1/4	3.46

(B) DISCUSSION OF SAMPLE ANALYSIS FOR PREPARATION OF TABLES 1, 2, 3, 4, 5A, 5B, 6, 7A, 7B, 8, 9, 10, in SECTIONS II, III and IV

Method of selecting sample

The procedure adopted for selecting the one in four sample of reports for the preparation of tables 1, 2, 3, 4, 5A, 5B, 6, 7A, 7B, 8, 9 and 10 was first to add to each of the figures 1, 5, 9, 13, etc. one of the figures 0, 1, 2, 3, taken at random (tables of random numbers were used). A series of numbers ranging from 1-10,000, the first ten of which were 3, 6, 10, 16, 17, 24, 27, 30, 34, 38, was obtained. These numbers were used for extracting from the reports of each brigade separately the sample to be coded.

Accuracy of estimated percentages of different types of fires

Of the total number of reports in 1956, a sample, N, has been analysed: of this sample a percentage, p, has been observed to fall into a certain group e.g. fires caused by sparks from locomotives. This percentage is an estimate of the corresponding percentage which would have been obtained had the total number of reports been analysed. The accuracy of the estimate, p, can be defined by means of its 'standard error', s, which is given very nearly by the equation.

$$s = \sqrt{p\frac{(1-p)(1-f)}{N}}$$

where f = sampling fraction which is $\frac{1}{4}$ in the present instance

This formula can be used for estimating s even if N does not denote the total number of reports in the sample, but the number in a sub-category of the sample e.g. fires in buildings and the percentage, p, is based on this number. The sampling fraction is then not exactly known to be, but is assumed to be $\frac{1}{4}$.

The figures in the tables have been obtained by multiplying the results of analysis of the sample by four, and therefore N = N'/4 where N' is the estimated total of a particular category of fire on which p is based.

It is unlikely (only a 19 to 1 chance) that the actual percentage will differ from the sample estimate by more than $\pm$ 2s = E

$$E = \pm 3.46\sqrt{\frac{p(100-p)}{N}}$$

The following examples show the method of calculating the value of E.

Example 1

8.3% of the 111,152 fires in England and Wales were attributed to sparks from locomotives (Section II, Table 4).

$$E = \pm 3.46 \sqrt{\frac{8.3 \times 91.7}{111,\ 152}} = \pm 0.3\%$$

There is therefore a 19 to 1 chance that the interval 8.0%-8.6% will include the true percentage.

Example 2

0.5% of the 10,508 fires in Scotland were extinguished with sand, earth, etc. (Section III, Table 8).

$$E = \pm 3.46 \sqrt{\frac{0.5 \times 99.5}{10,508}} \quad \pm 0.2\%$$

There is a 19 to 1 chance that the interval 0.3%-0.7% will include the true percentage.

Accuracy of estimates of yearly totals of fires

An estimate of the returns of 1956 which would have been obtained had all reports been analysed, has been made by multiplying the results of analysis of the sample by four. The 'standard error', s', of this estimate is given by the equation.

$$s' = \sqrt{\frac{n'(N'-n')(1-f)}{N'f}}$$

where n' = figure in table.

N' = estimated total of a particular category of fire e.g. incidents in England and Wales.

It is unlikely (a 19 to 1 chance) that the actual yearly total for a particular group of fires will differ from the estimated figure, n', by more than $\pm 2s' = E'$

$$E' = \pm 3.46 \sqrt{\frac{n'(N'-n')}{N'}}$$

The two examples considered above show the method of calculating the value of E'.

Example 1. (Large value of n')

9,200 fires in England and Wales were attributed to sparks from locomotives. (Section II, Table 4). The total number of fires in the country was 111,152.

$$E' = \pm 3.46 \sqrt{\frac{9,200(111,152-9,200)}{111,152}} = \pm 318$$

There is therefore a 19 to 1 chance that the interval 8,882 - 9,518 will include the actual yearly total.

Example 2. (Small value of n')

48 of the 13,200 fires in Scotland were extinguished with sand, earth etc. (Section III, Table 8).

$$E' = \pm 3.46 \sqrt{\frac{44(10,508-44)}{10,508}} = \pm 23$$

The proportionate sampling error here is large: there is a 19 to 1 chance that the interval 21-67 will include the actual yearly total.

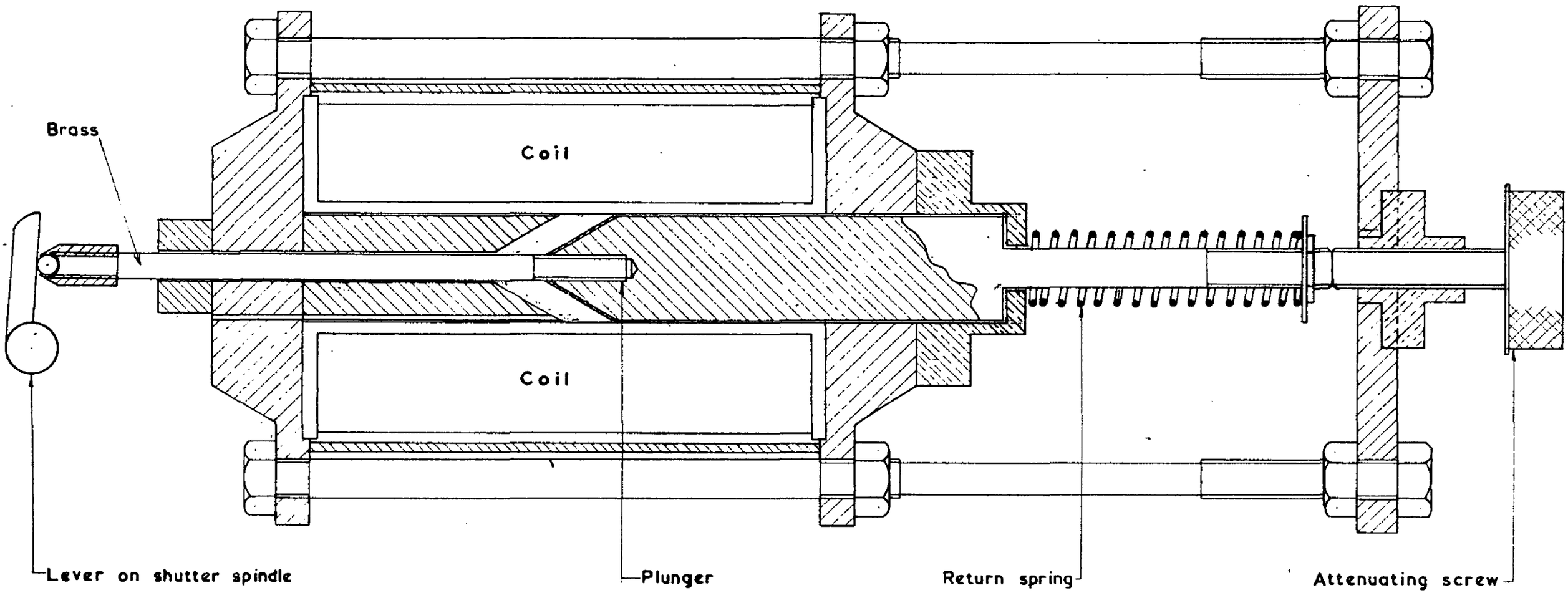


FIG. 5 SECTION OF SOLENOID

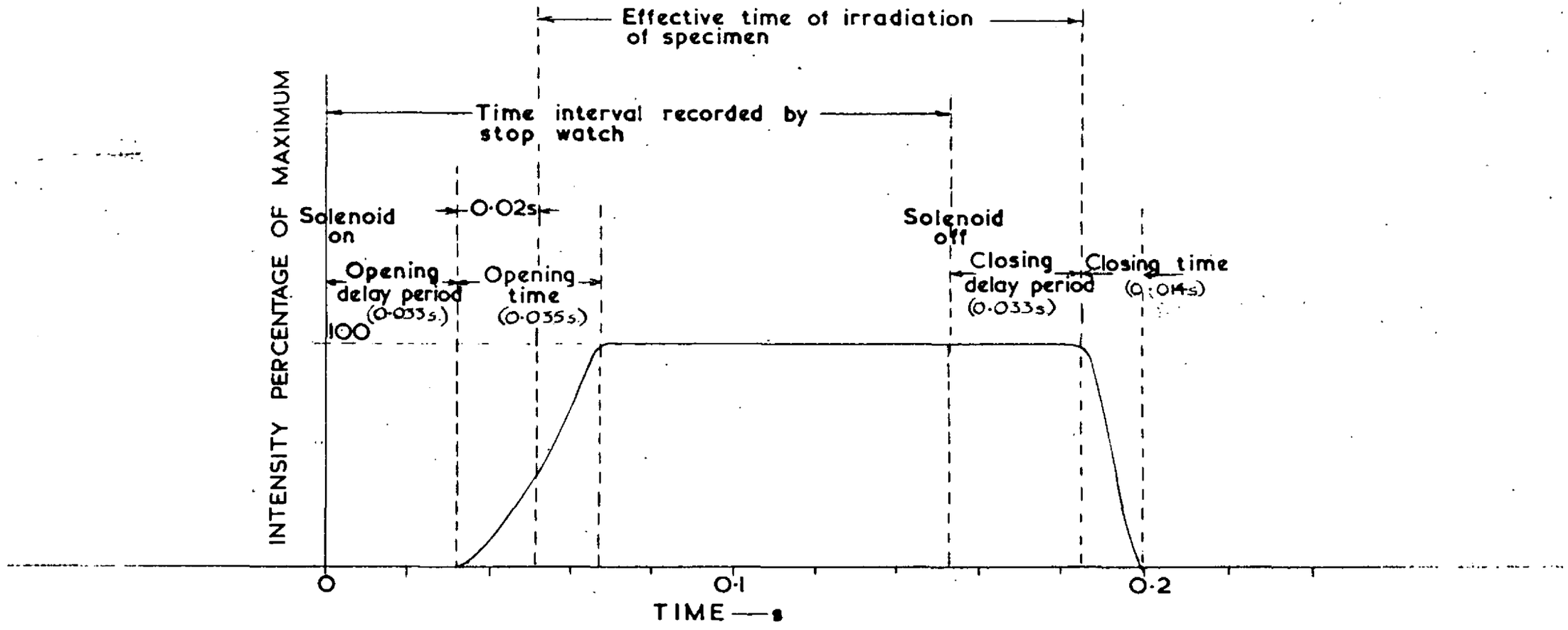


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FIG. 6 OPENING AND CLOSING TIMES OF SHUTTER

F.R 270 1/2607

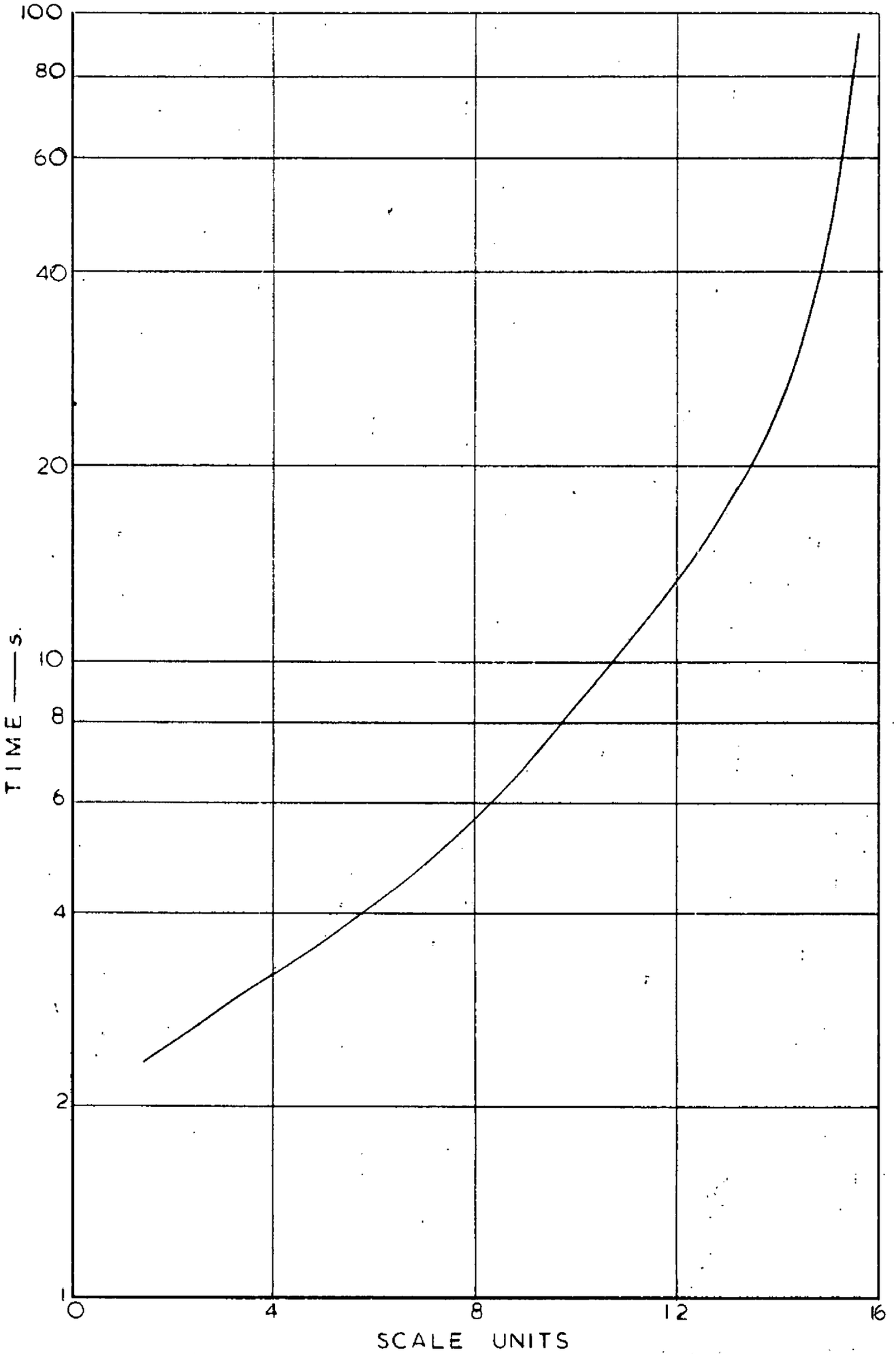


FIG.7. CALIBRATION OF MOTOR SPEED AGAINST SCALE ON POTENTIOMETER

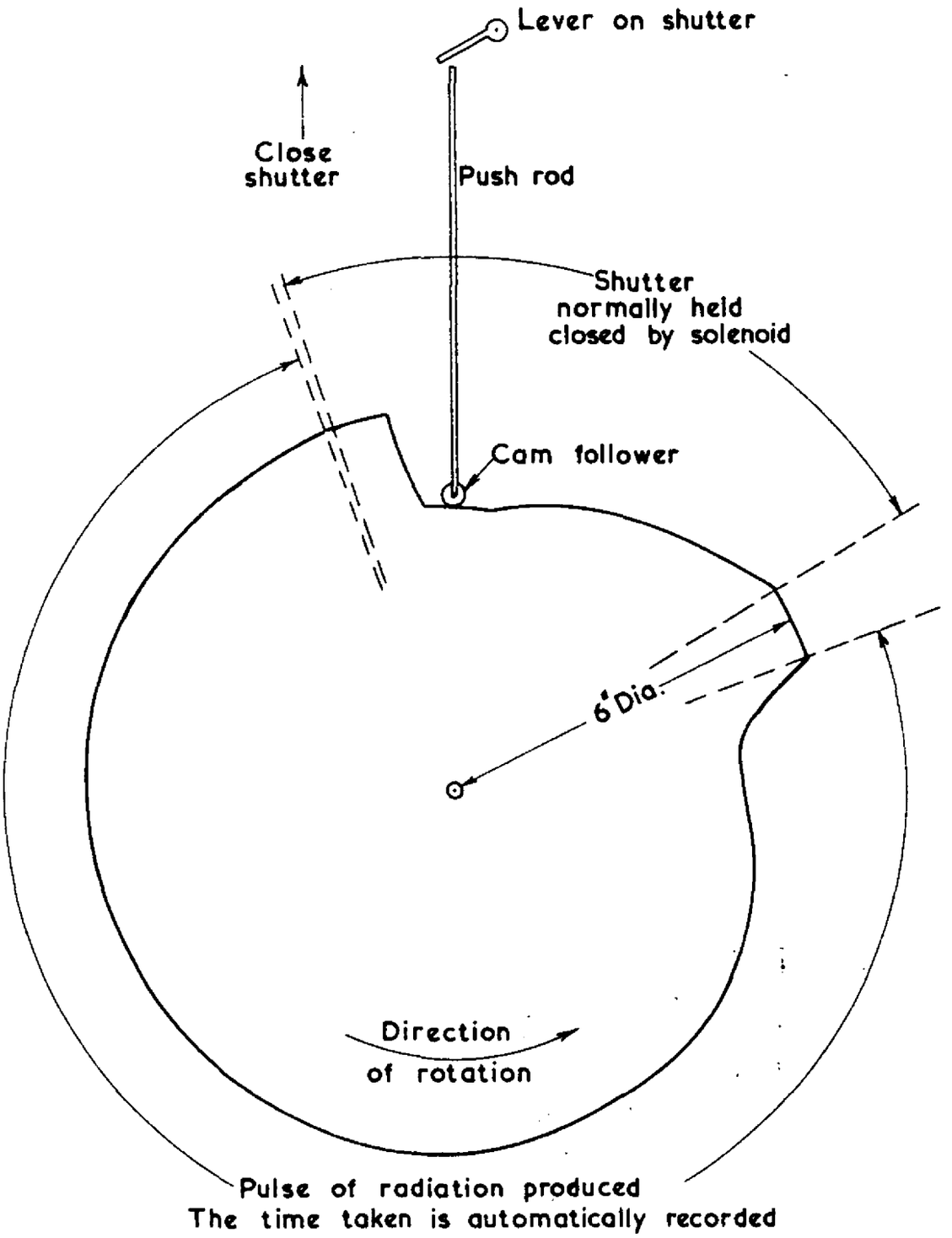


FIG. 8 DIAGRAM OF CAM SHOWN IN THE "REST" POSITION

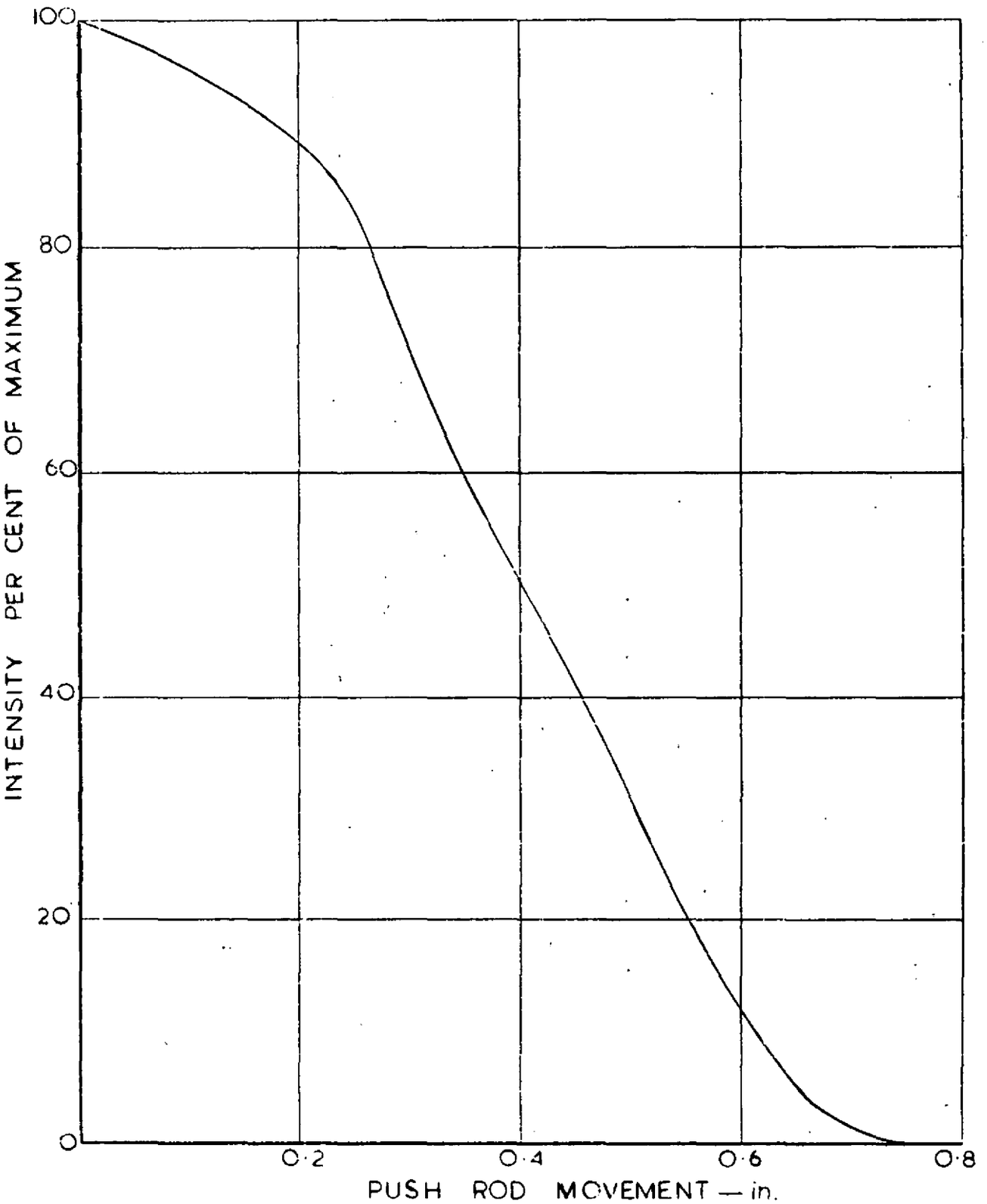


FIG 9. INTENSITY OF RADIATION AGAINST PUSH ROD MOVEMENT

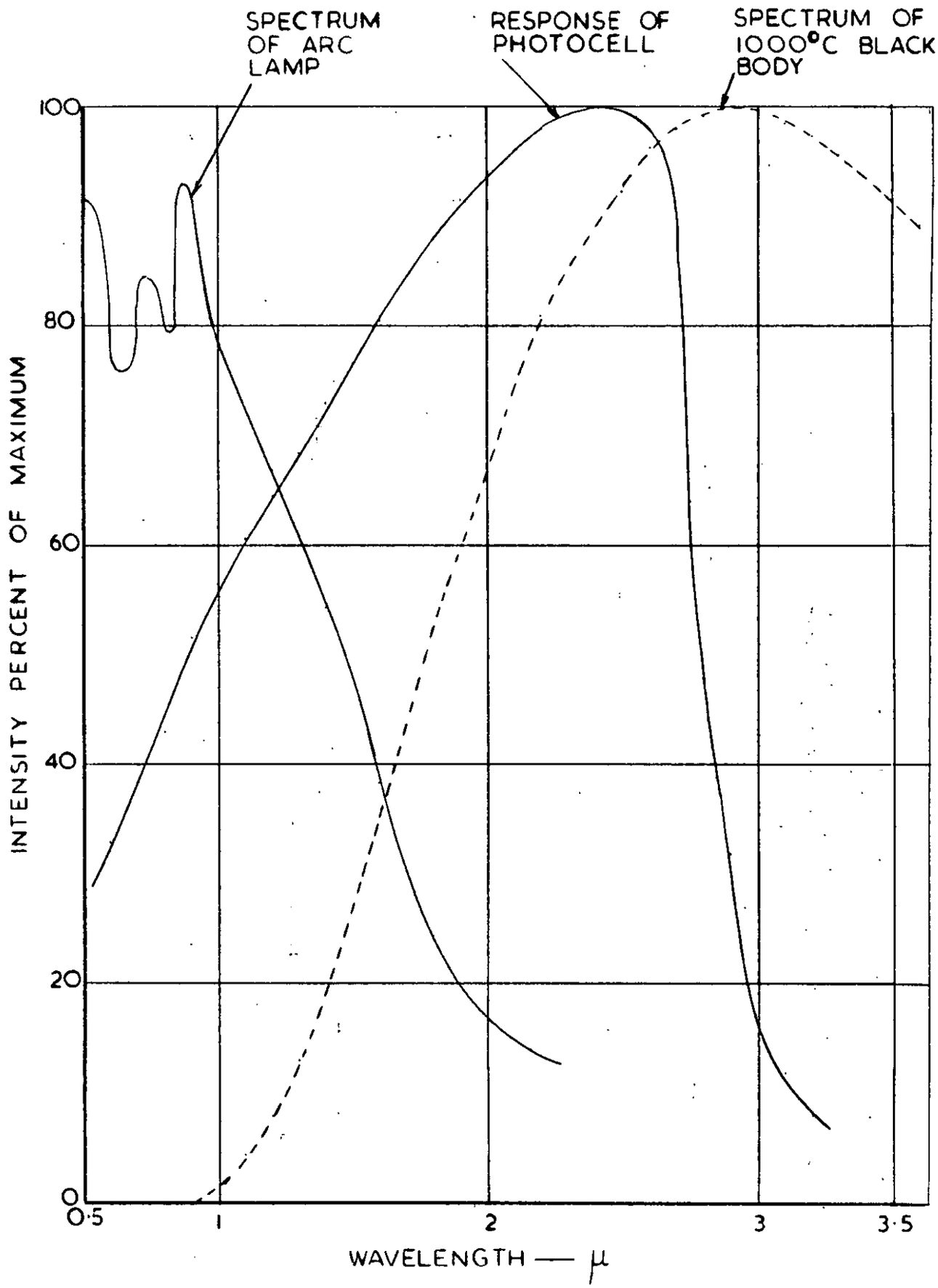


FIG.10. SPECTRAL RESPONSE OF PHOTOCELL IN IGNITION DETECTOR COMPARED WITH SPECTRUM OF 1000°C BLACK BODY AND SPECTRUM OF ARC LAMP

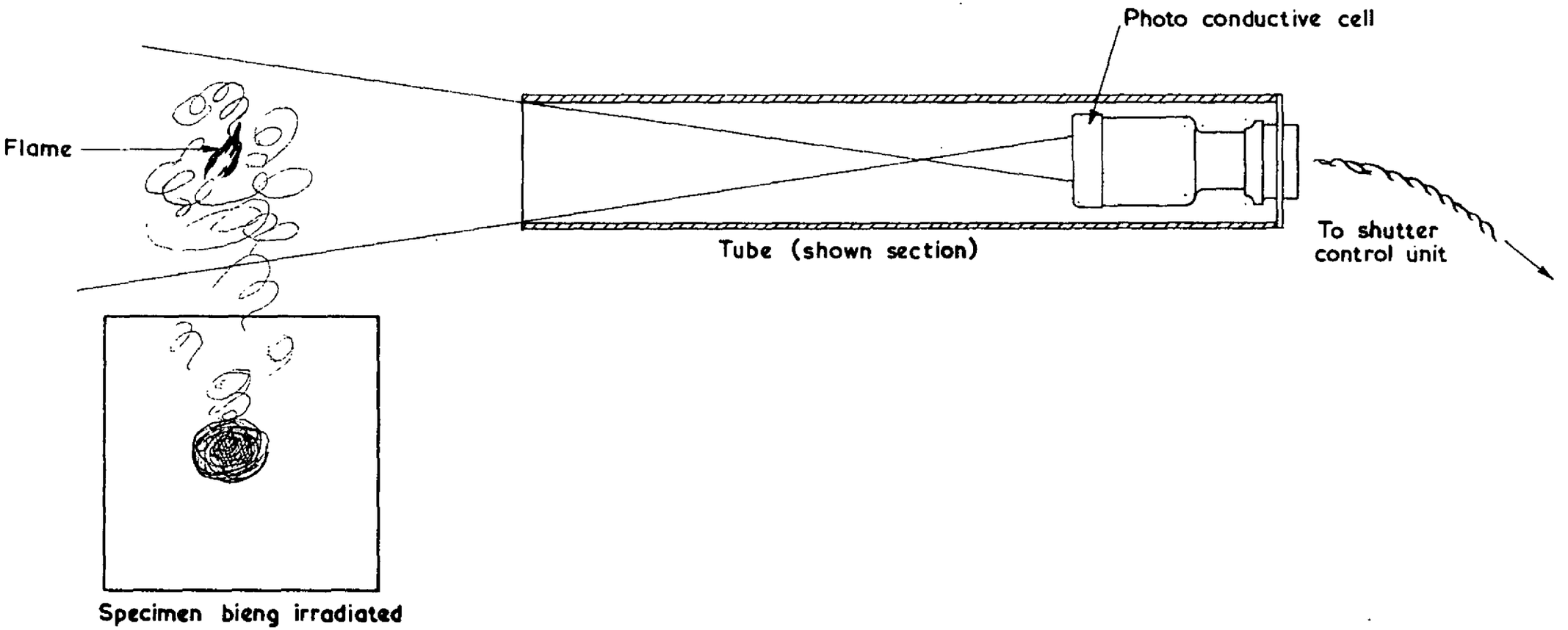


FIG. II. IGNITION DETECTOR

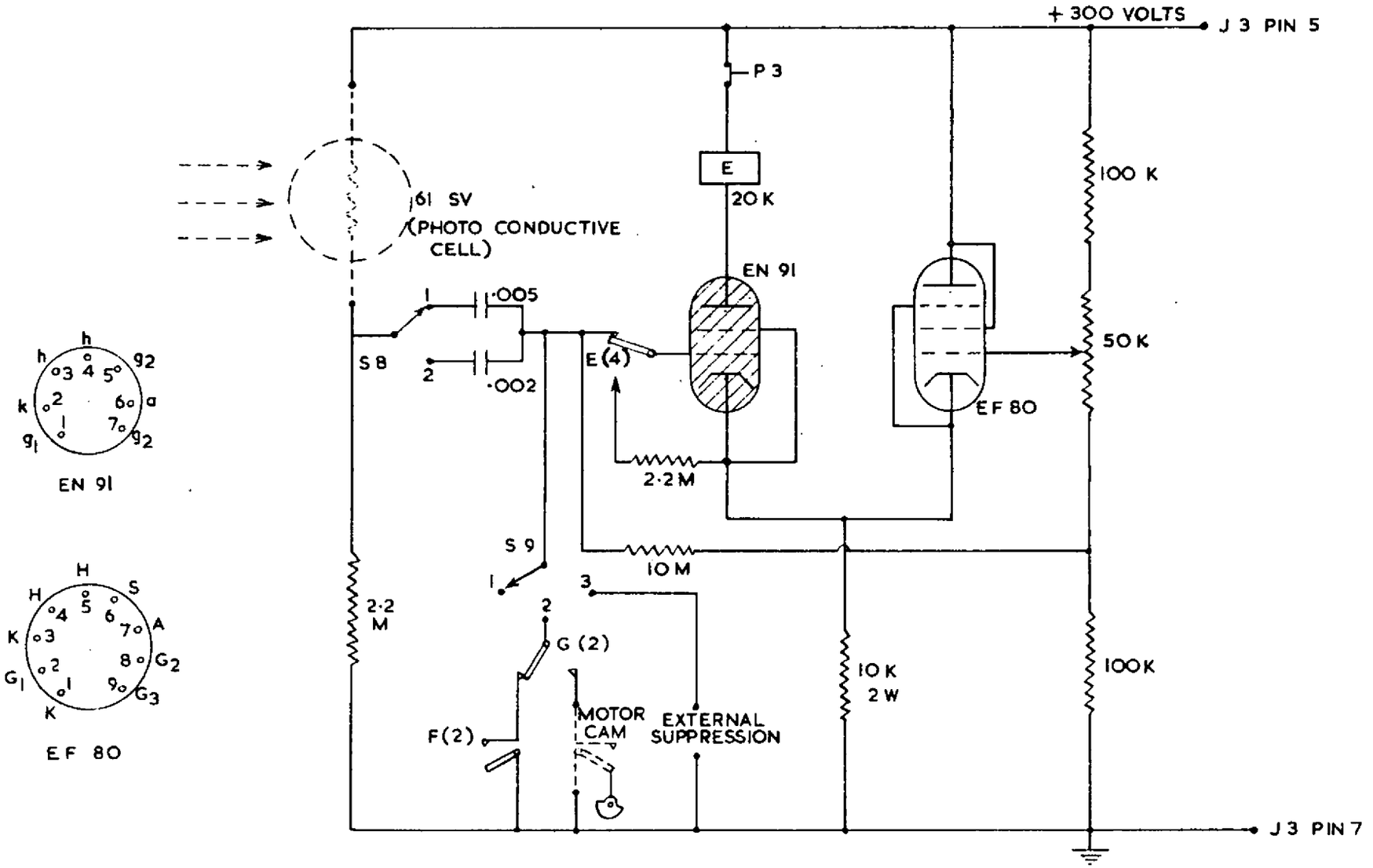


FIG. 12. CIRCUIT OF IGNITION DETECTOR

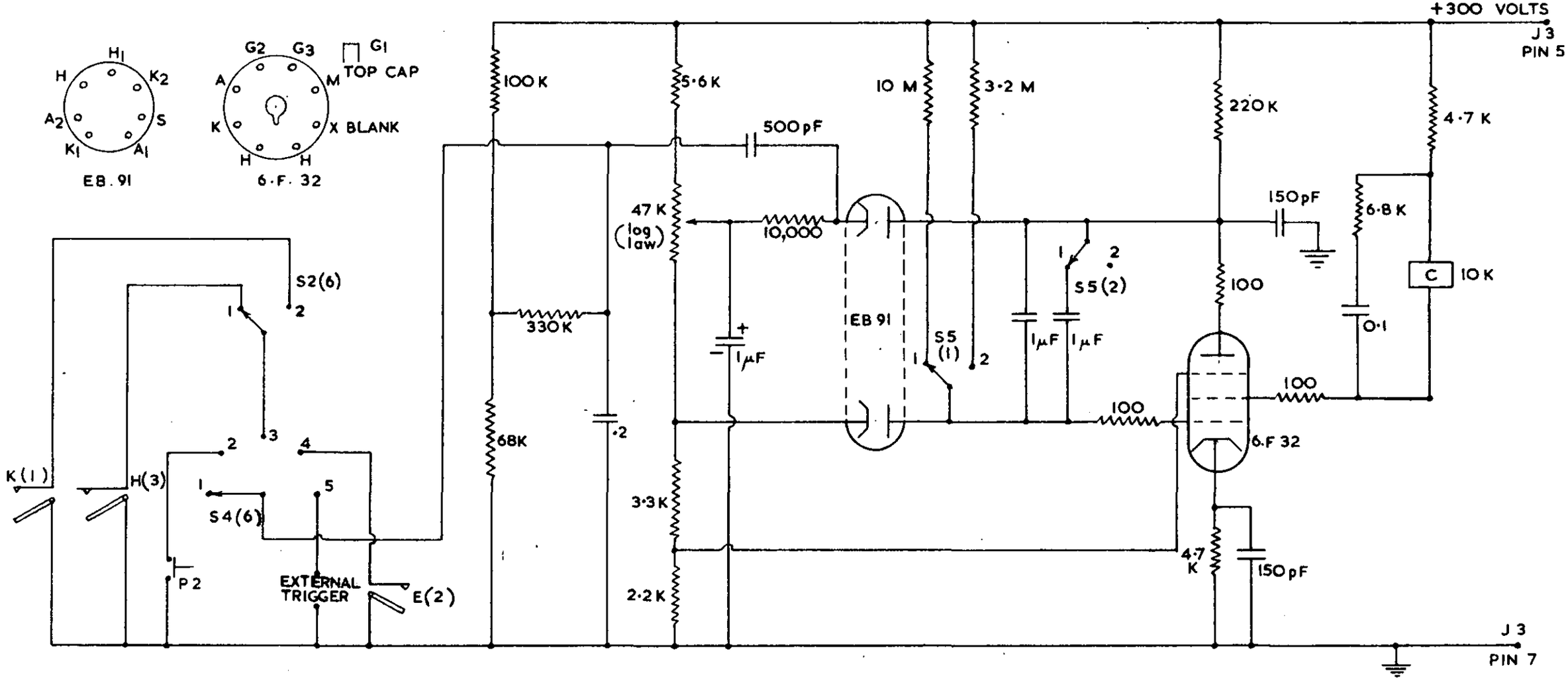
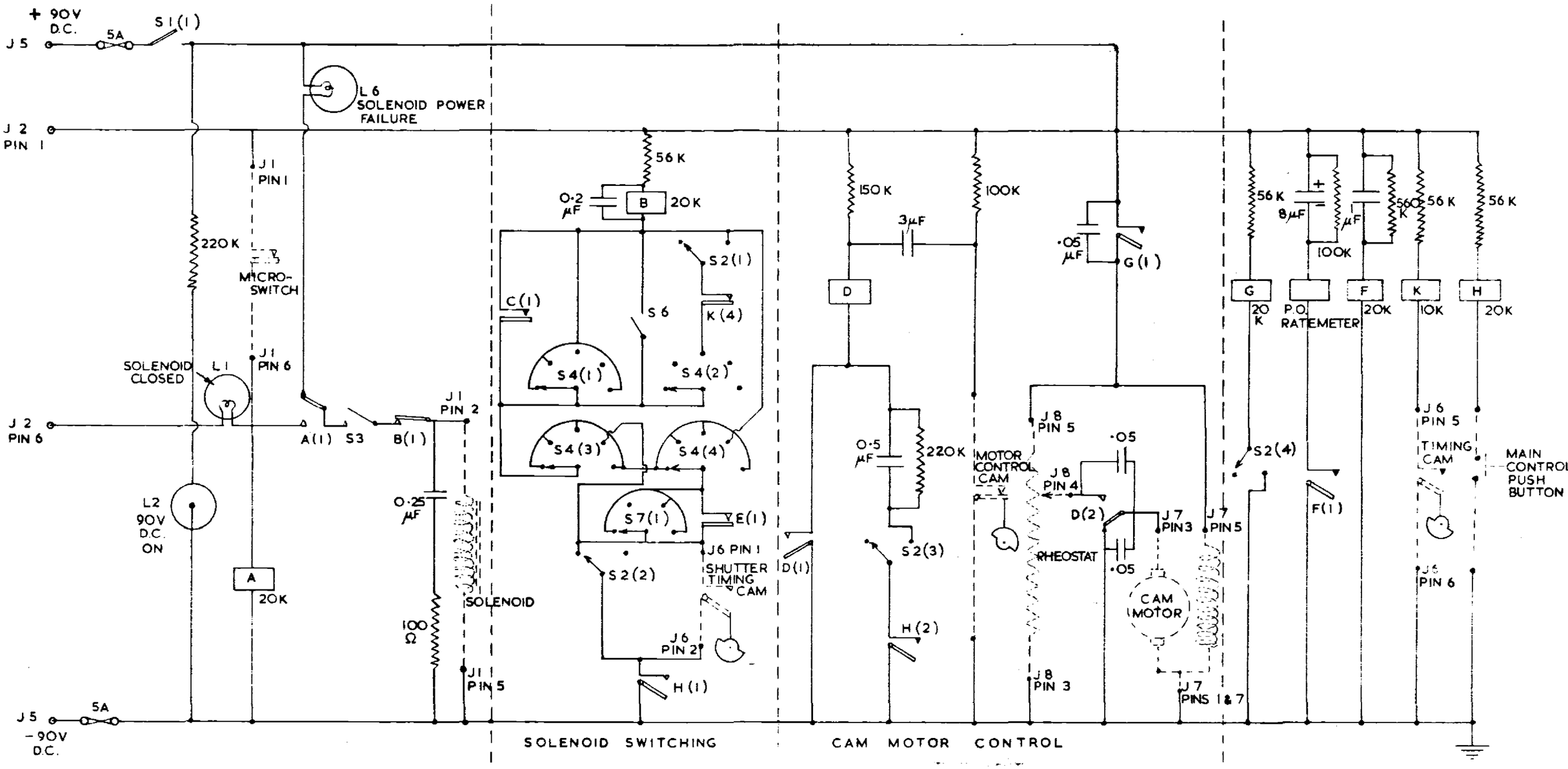
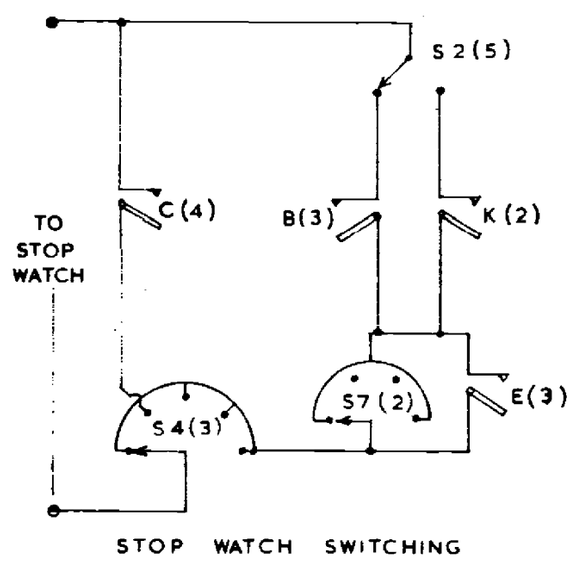
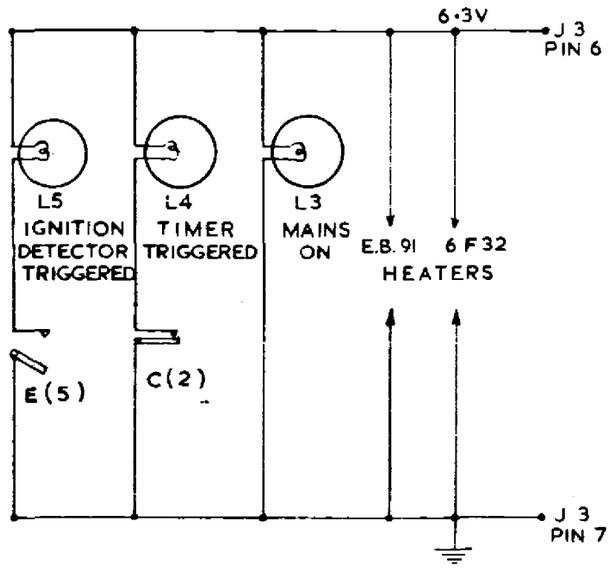
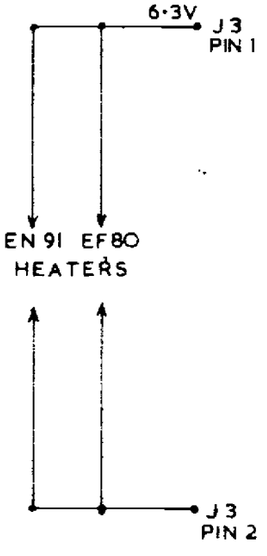


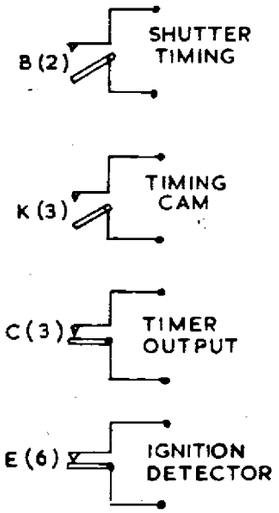
FIG. 13. CIRCUIT OF TIMER











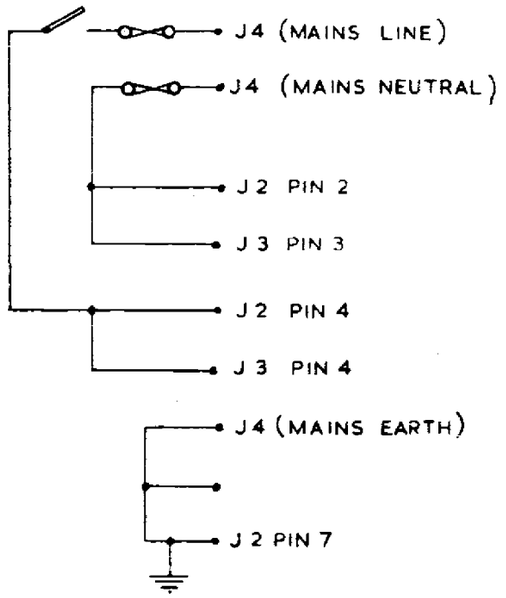
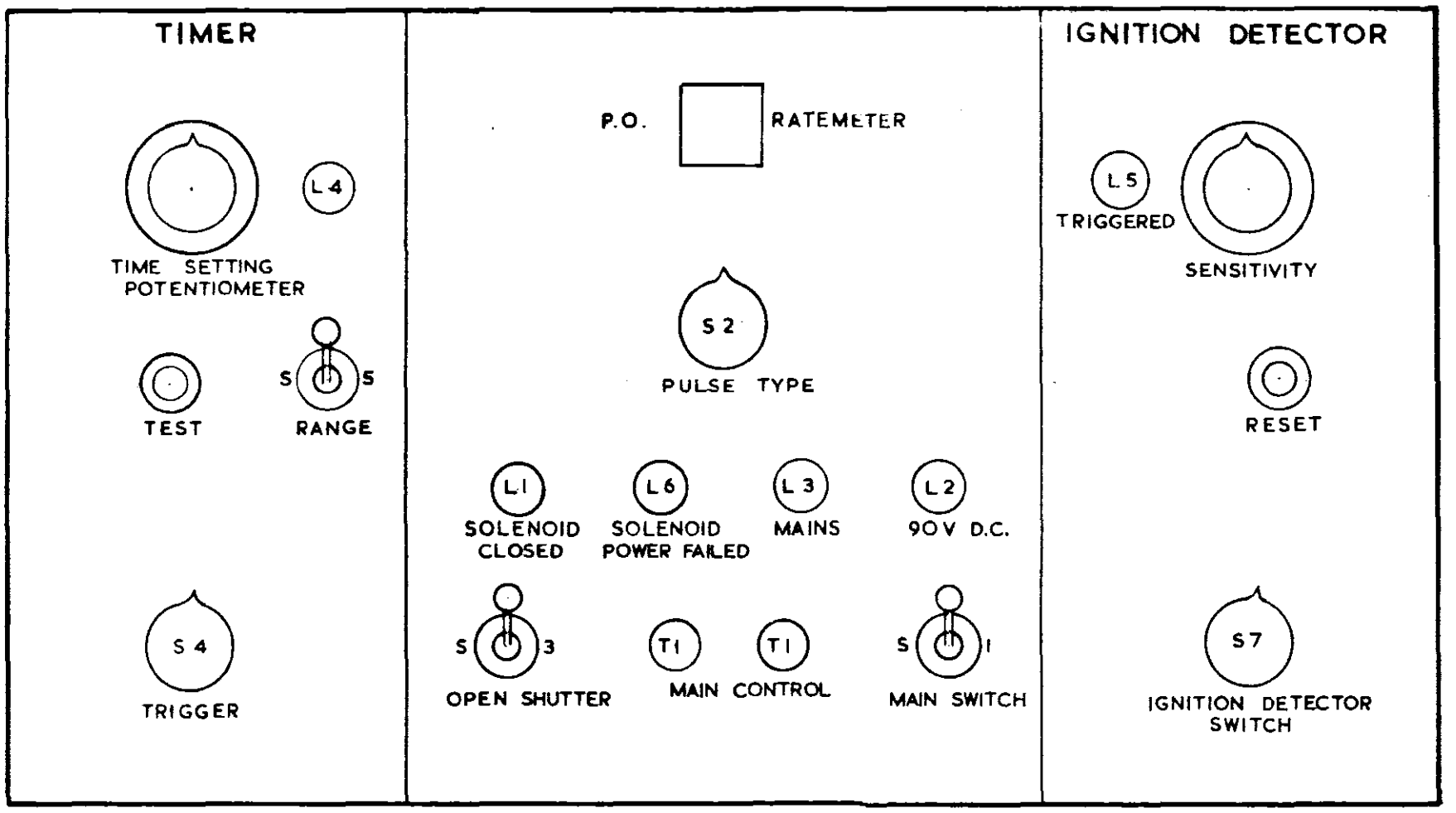
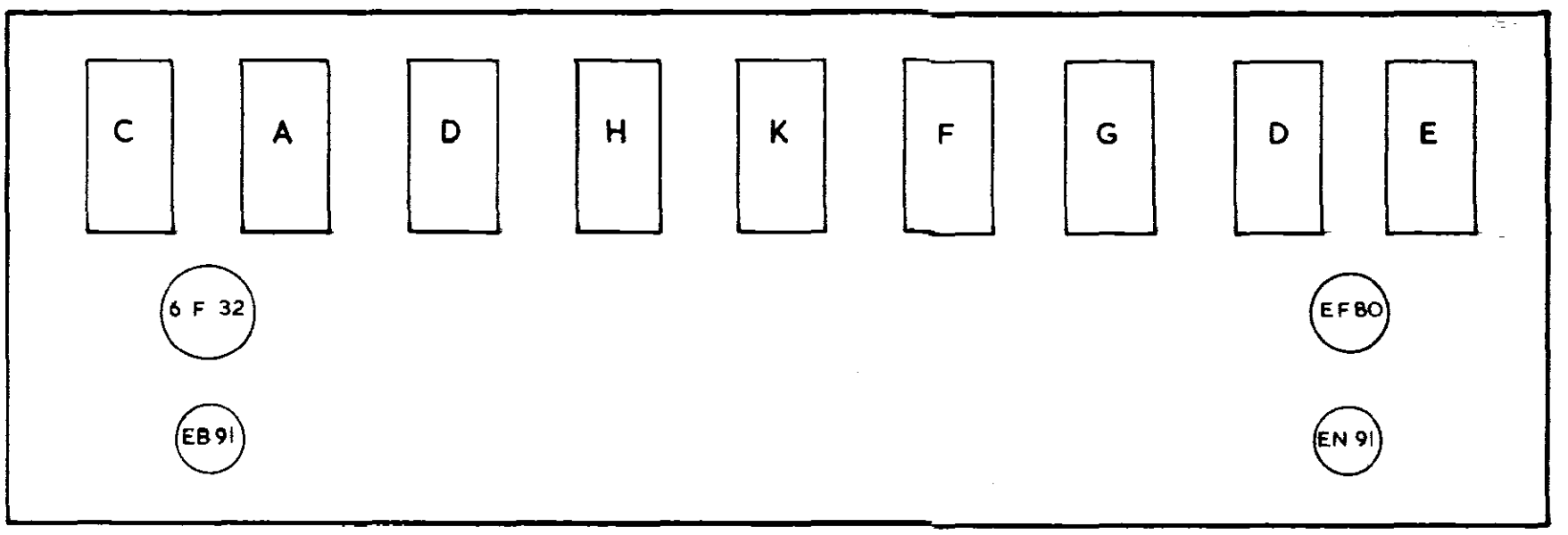


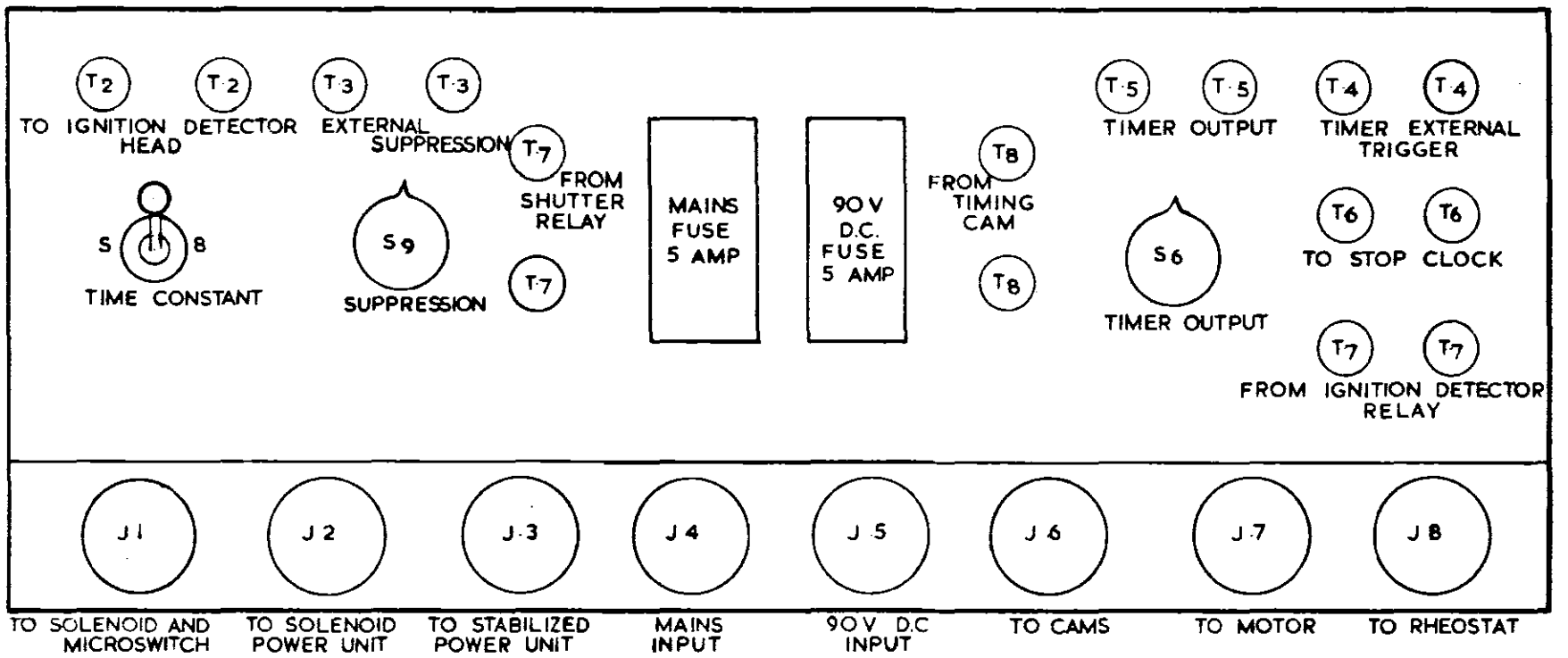
FIG. 14. SHUTTER CONTROL UNIT



FRONT PANEL



CHASSIS — TOP VIEW



REAR PANEL

FIG. 15. DIAGRAM OF SHUTTER CONTROL UNIT SHOWING POSITION OF MAIN COMPONENTS

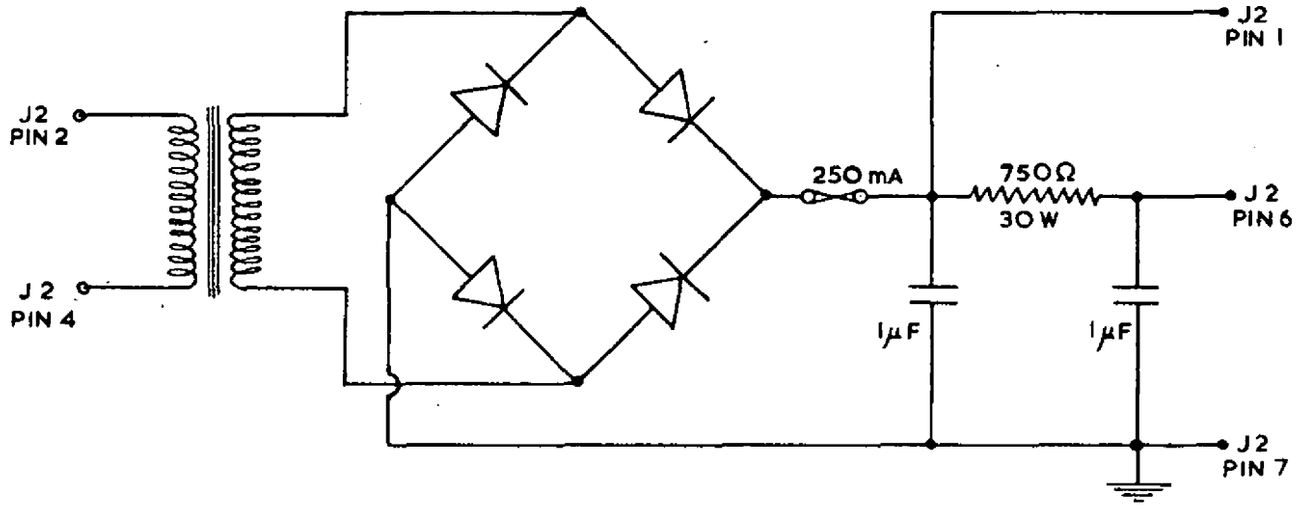


FIG. 16. SOLENOID POWER UNIT

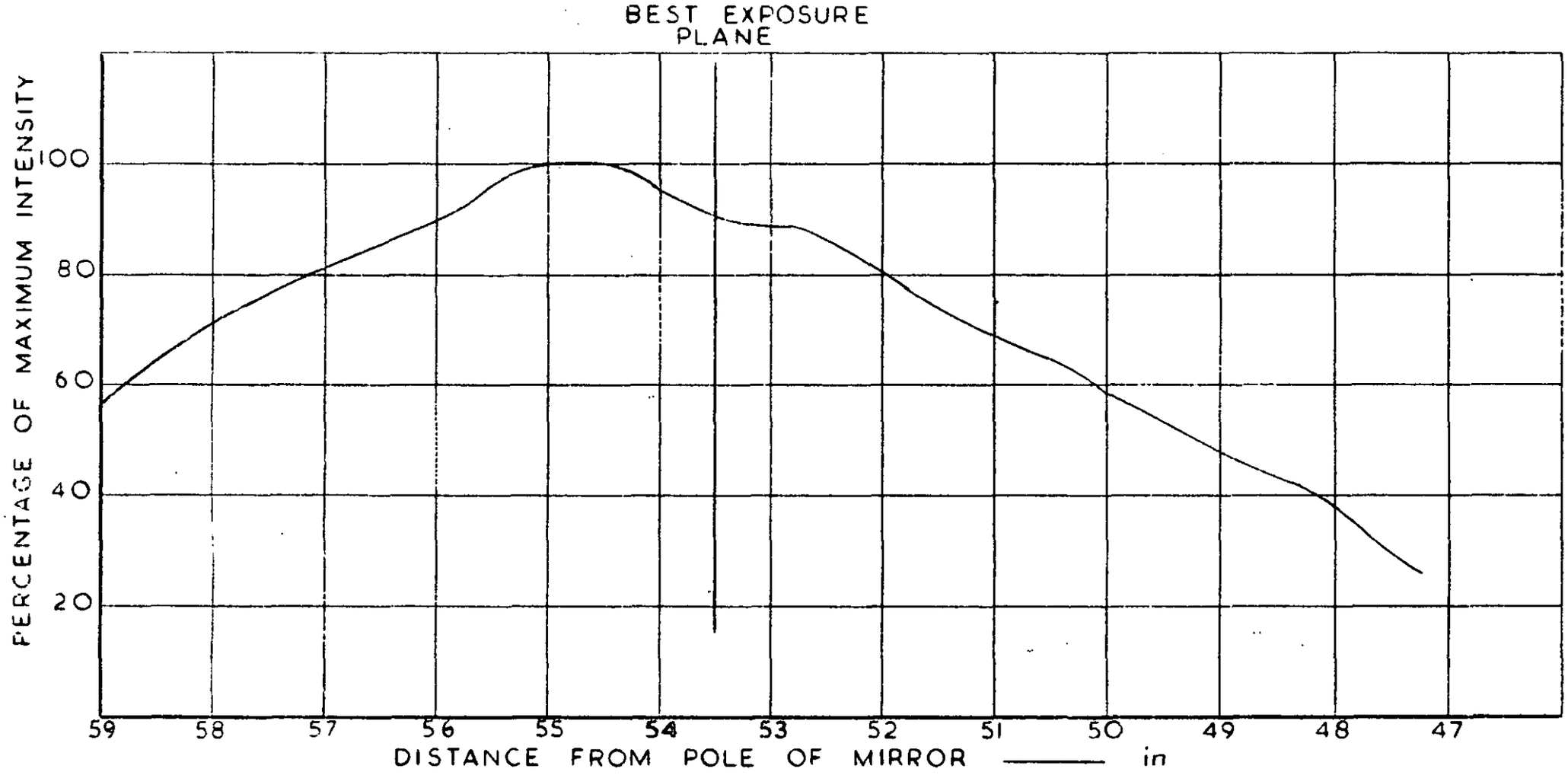


FIG. 17. INTENSITY DISTRIBUTION ALONG AXIS

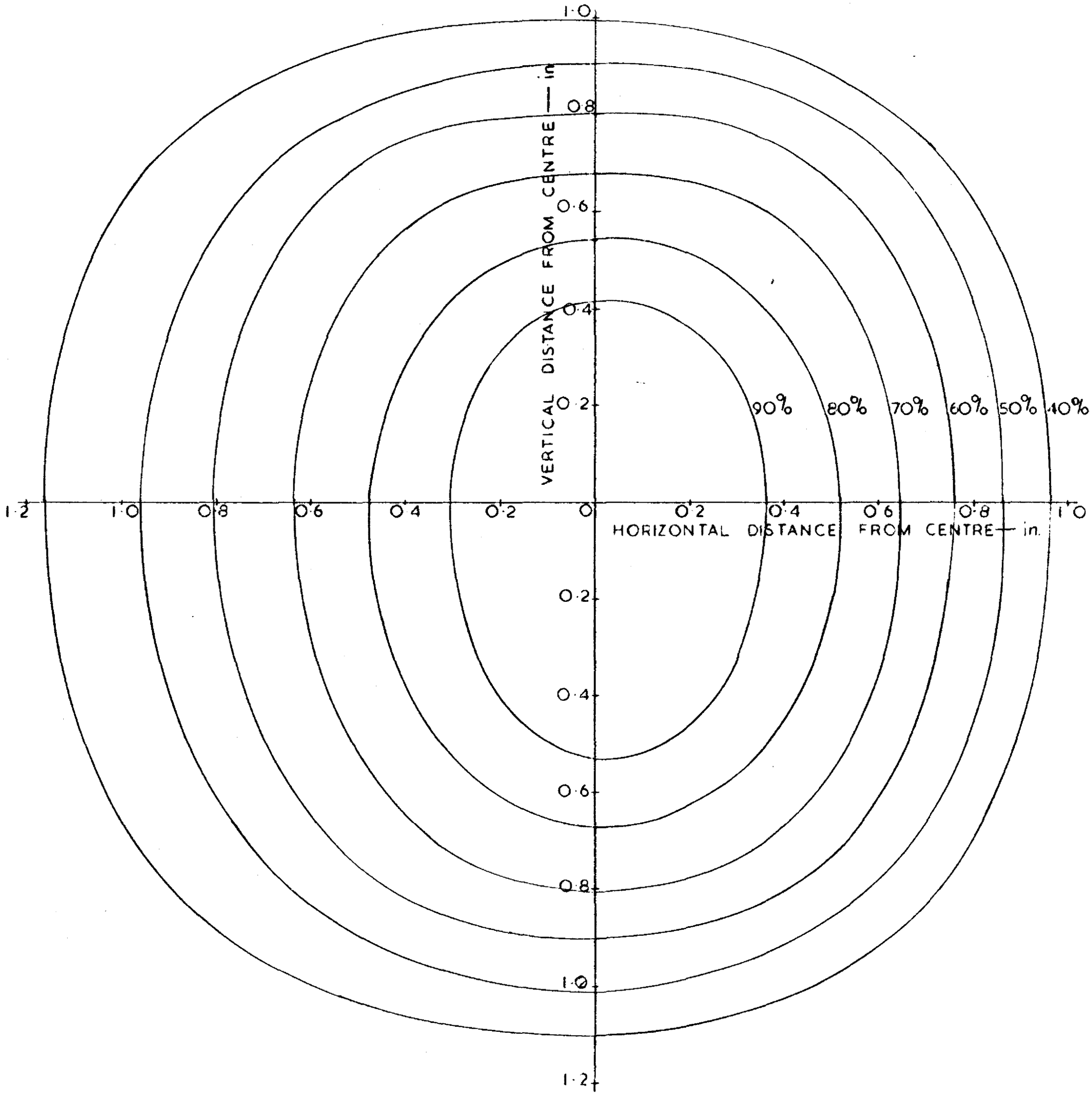


FIG.18 LINES OF CONSTANT INTENSITY OF RADIATION IN THE EXPOSURE PLANE

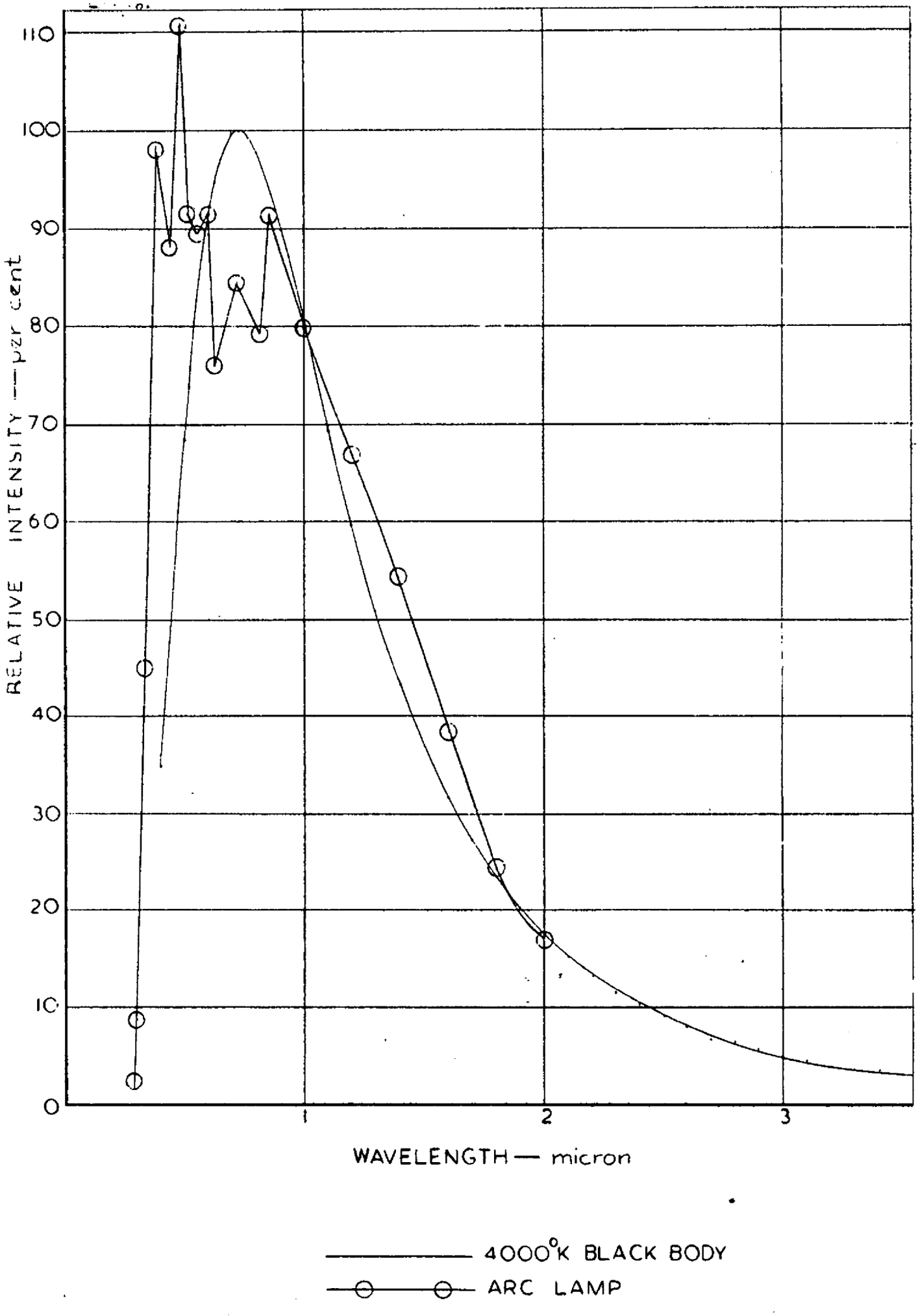


FIG. 19. SPECTRUM OF RADIATION RECEIVED IN FOCAL PLANE COMPARED WITH THAT OF 4000°K BLACK BODY.